

## Interview with 1

[Speaker 1]: P1

[Speaker 2]: Gauthier

[Speaker 2]

Perfect. So maybe I can tell you and ensure you that this meeting will be really confidential. So it's for university and it will be anonymous also. I wanted to point it out. And also can I maybe just like, yes, record like the sound of the interview like that. I can re listen it later on and take some notes. But it will be totally anonymous and confidential.

[Speaker 1]

I don't have anything to hide.

[Speaker 2]

Perfect. Perfect. So maybe can you introduce yourself and then elaborate on your role at Waste Management Company and within the EU Commission Expert Group?

[Speaker 1]

P1, I'm in manager waste activities, biggest Waste Management Company in my country. And I'm also part of raw materials expert group and UNESCO expert group in the field of wastes and environmental.

[Speaker 2]

And given like your unique position at the intersection of industry and also like I would say more policy making. How do you leverage your expertise to shape the strategic direction and priorities related to this year's act?

[Speaker 1]

Oh, I like to be one step forward to anyone. So I'm reading a lot. I'm trying to to make the connection between the legislation and the practice.

And I can tell that there are many experts in the European Union that they know what they are doing when they write the legislation. So in practice, I can think that we can we can implement it and we can use it.

[Speaker 2]

Perfect. And maybe could you give me more insight about like your waste management company business model and strategy? And they're so like, oh, it's work for me to grasp before the idea of the company of you are working for.

[Speaker 1]

You know that every year waste appliances, they become more and more and they're also European targets. And we are always in one position like it's chasing the waste. We want to collect it and treat it in the proper way.

You know, the standards which are generally very important and we are working according to them. So this is something that we would like to be everywhere, not only single companies in every country. In some other countries, it's mandatory to work according to these standards.

And these standards are made not only for the polluting or health and safety, but also to have the cleanest raw materials, cleanest possible raw materials, because, you know, in waste electric and electrical equipment and spent batteries and accumulators, there is a high volumes. There are high volumes of this kind of materials and it's very important to be treated right and to be raw materials, secondary raw materials to be extracted in the right way. So we are working all the time with universities.

We're trying to find the best way to receive the cleanest product, which is impossible, because for us, waste are resources. And we are trying to minimize as much as we can disposal. And here in my country, disposal is like less than 10% from the materials. So it's really important these appliances and batteries to be treated the right way.

[Speaker 2]

And like, how would you say that the new legislation, so the CRM Act, has influenced the strategy of your company and also like the company that manage, I would say, waste and also that recycle CRM?

[Speaker 1]

Yeah, you can see that we don't recycle. We try to extract it and to give it for bigger recycles, because quantities are not as big as we would like to be. You know, these critical materials, they're very small.

But when you make your research, you can see that critical materials, every three years when it's published, the Critical Raw Materials Act, they become more and more. They're never less than the previous year. I don't know if you have counted them, but you see that they're always something more.

And this is very important. This means that we need to work a lot more on the requirements of the technologies. And we, like consumers, we want faster appliances.

We want smarter appliances. We want better technologies for everything. But this has a price, and usually this price are the critical raw materials.

That's why recycling on the other side is very, very important. And I like now that there are this, you know, new right to repair directive. I think it's very, very important, because for us, it will be easier to dismantle the appliances when there is eco-design, design for easier repair, design for recycling.

So, yeah, I think that we're going in a good direction. And you know that China is the monopolist of this business. And so it's important for Europe to run fast.

[Speaker 2]

Yes, that's true. Like China is really impressive in terms of everything linked with this kind of resources. And like from your perspective, so you just told me that it's good that Europe is trying, I would say, to change the thing and also to do more eco-design and more reutilization, I would say.

[Speaker 1]

Yeah, I think it's good. And when I follow, you know, I believe you too, you follow many organizations in European Union and Bureau of Recycling. I see that they react immediately, especially EURIC, which is the European Recycling Organization.

They react immediately when there is something that is not good for the business or also not good for the collection and for recycling.

[Speaker 2]

And maybe like if we are talking about circularity in general and also like waste management, what would you say are the points that are still to be improved within this legislation or things that you would like to improve?

[Speaker 1]

Oh, let's say I want permits to be faster because this is something that is very slow. When you have an innovative force, you want to make some innovation,

sometimes you need to wait years to issue the permit. I would like the publicity to be in a better way in various waste treatment because it's not only recycling, you know, some materials, they cannot be recycled.

And it's strange, like people, when they hear, you know, for other ways of treatment, I'm not talking for disposal, I'm talking for energy and energy from waste for me is very important. Many people, they react like they don't use the materials every day, they don't throw them in the bin. And this is something that I would like to be better, to have better PR, better information campaigns, better knowledge.

This is very important because recently I saw that only 45% of people in Europe, and you can find it even in a letter in the Italian Recycling Association for WE, only 45% of people, they know that there is a service of a company like us for their old appliances, which means, you know, people need to be informed, they need to know what's going on. You can't keep broken appliances in your home because they're hazardous. But at the same time, you say, oh no, I'm against the waste from energy, I'm against this, I'm against that.

No, you consume it, it comes from you, like a waste, so you need to, if you are against, you just need to know the whole process, the whole circularity, because we can't pass without it. I made, I had, it's a very interesting picture that I can send you for circularity, so it means that we are trying to go back 200 years, because what was in the beginning, you know, 200 years ago, first packages, first wood, metal, before plastic to be invented, everything was recyclable, and we are trying now to go back in this, which is great, but people need to understand that there is, in my opinion, there is not such thing like zero waste, because even when we die, we produce waste, you know, we are waste at some point, so it can be zero, everything around us is waste at some point. So, not everything could be 100% recycled, because if you want a better technology, you want cleaner materials, but these cleaner materials combined next to each other, they cannot be recycled 100%, we need to have better processes, shorter procedures for innovations, for, in my country, I don't know how it is in the other countries, but when you have funding for innovations, we, like a recycle company, we cannot apply for innovation in the recycling field, so we have some installation, we are the one dealing with this business, but it turns out that we are out of this scope of funding, and it's only for, let's say, start-ups, I'm not against it, but this broke the process at some point, because we have the knowledge, we have the experience, and we are looking for solutions all the time, because this waste comes physically to us, to our facility.

And this is something that I would like to see, better funding, information, and publicity, it's very important, people need to know that there are many ways, except recycling, that a waste can be, of course, the first place is prevention of production, but you know that there is a contradiction between some directives in the legislation, and usually this contradiction is between health and safety, and production, so this is a problem of the legislation, that there is a contradiction, if I produce packages, and there is ink, you know, a sign on the package, I can't make it, produce it recyclable 100%, because according to health and safety, the ink cannot touch the skin, the person who takes it, so you need to put a coating, but this coating blocks the recycle process, so it needs to be harmonized, the legislation inside the European Union, between the different topics, it would be transportation, it would be health and safety, and invasions, economically, agriculture, everything must be harmonized.

[Speaker 2]

Okay, very interesting, so here, to sum up a little bit, so you would say that there are still some, I would say, procedures, or some things that can be put in place to increase the level of information, and incentive for the people to recycle, like materials, I mean, like goods, or applications linked with raw materials, or even in general, I would say, that we need a more short procedure when we launch a project, because it takes ages, I would say, if you want to launch a project.

[Speaker 1]

You should issue a permit, yeah, when you're dealing with waste, there are many permits, and I've heard on, let's say, raw materials summit last year, I think it was Umicore, when they say one and the same project, in the United States and in Europe, in the United States, you receive the permit before to start building, in Europe you build, and after that you wait for the permit years, this is something that is very wrong, but I can advise you to take, let's say, some appliances, because this is my field, or whatever you want to do, and to check the legislation, the requirements, when it's new, you know, when you produce it, what are the requirements, and after that, to see that this requirement is an obstacle to recycling, somehow, when you make, let's say, I produce, I don't know what, a toaster and iron, and I have this and this, brominated, it will be here the safety point, you know, it can burn, it can dissolve, that means that you need to put brominated. And some additives to the plastic, but it's really bad for the recycling point, so these are contradictions that must be cleaned up. And

this is the, I think, this is the real circularity, when you start from the beginning and you come back there.

[Speaker 2]

And so I was also wondering, for example, are you not afraid that if they reduce, I would say, the time needed to have the certification and also to launch a project, that they have to reduce, I would say, the check-up to ensure that the project will not harm the environment and also the social communities? Like, are you not afraid about that trade-off between shorter time, but...

[Speaker 1]

Oh, no, I'm not talking for hazard procedures. There are procedures for hazardous waste. There are procedures for harmful production and also waste treatment.

So, and these procedures are good. You wait more for integrated permit, but this integrated permit, it's for everything, it's for the air pollution, for the water pollution, for the soil pollution, everything. No, I'm not talking about this. I'm talking about simple, simple operation that requires, you know, long time.

[Speaker 2]

Okay, okay. So it's not about big project, but more like operation inside a big project, right?

[Speaker 1]

Yes, exactly. When you have the integrated permit, like we have, this integrated permit is for hazardous materials, it's for waste treatment, you know, big volumes. And when you want to add something which is like innovation, and it's not so big, it's something small to this, and when you prove that it will make the things better, it's not going to harm, you can't wait years to receive, to add it to your permit. Because this means that you can't use the technology that you offer.

[Speaker 2]

Okay, I get it, I get it. Thank you very much. And in terms of the company you are working for, and also about your activities, what would be, in your opinion, the negative impacts that could be related to your activities in terms of social and environmental, and how the regulation can help to solve this?

[Speaker 1]

Negative impact, it's social opinion, usually. Because when we discuss with people which are in our field, I can tell that everyone is on the same page. No matter in which point of Europe you are, we are dealing with the same problems.

And usually the biggest problem is that we can't collect the biggest amount which are available, because you know the target is 65%. Yes. Okay, we do this, but there are others that go to scrap facilities, and these scrap facilities, they take only the metals, and the other is dumped, I don't know where.

There is a part of the appliances that we don't know where they are going, and this is something. And we need to have bigger publicity, and we are trying to do this all the time, making campaigns to inform people that they cannot give the appliances to everyone. You need to give it to a certified treatment operator.

You need to give it to someone who invested in installations and is doing it the proper way. And this, for me, is the biggest problem.

[Speaker 2]

Okay. And also, if I understood, at least before, like the waste tend to be sent in other countries, like for example Turkey, and with this specific regulation, and also like Europe, try in fact to increase the waste management inside Europe, inside the countries.

[Speaker 1]

This is for the plastic waste?

[Speaker 2]

Sorry?

[Speaker 1]

The export for third countries, it will affect mainly plastic waste? The new directive for this, and maybe metals, because metals are, you know, that Turkey is the second biggest buyer of scrap metal.

[Speaker 2]

Yes.

[Speaker 1]

So, yeah, but I saw that they gave some options, and I know that Turkey is working about these options, especially in the metal field, because we are not in the packaging waste business, and I'm familiar, but not very deep with this.

But, okay, there are facilities that recycle in Europe. If this will help for more innovation, it will be great, but needs also, how to say, some kind of wide PR campaign to show that treating waste is not so bad, because usually we are in the field that we are, I don't know, doing something wrong, which is not true, because when you ask someone, okay, give me a solution, they cannot give you a solution, you know, or they think and they come to your solution. So, this is something, but also I see a problem that is coming now, especially for the plastic. I'm only reading, because it's not our business, but I'm reading that this requirement to use recycled plastic in new products, many companies, they import already recycled plastic, like granules, which is a material, it's not waste, it's a fresh material from countries outside Europe, in European Union.

And so, the waste stays here, we need to recycle it, but of course, because of the legislation and because of the investment, because of the cost of labor, our product will be more expensive. And when you allow, you know, when it's allowed to import granules, or, you know, raw materials from China or from other countries, Asia, no matter, India, which is with Pakistan, which is with cheaper labor costs and cheaper costs, and of course, the price will be cheaper.

[Speaker 2]

Yeah.

[Speaker 1]

European production, what to do? European recycles, I mean, to sell to whom this material that they produce. And this is, again, a contradiction. It's not, the circle is not closed.

[Speaker 2]

And by talking about the cycle, would you say that right now, like the legislation of Europe is really focused more in terms of recycling part instead of, like, reusing and also, like, refusing, like refurbishing? Do you think that they are more focused on, like, recycling itself or do you think that's...

[Speaker 1]

I think the market is making this trend because, tell me, you're young.

[Speaker 2]

Yeah.

[Speaker 1]



Yes, and you need a new laptop, for example.

[Speaker 2]

Okay.

[Speaker 1]

And on the market, there is a brand new, I don't know which brand you are using, but let's say Apple, Mac, very fast with, you know, 5G, some great technologies in it.

[Speaker 2]

Yes.

[Speaker 1]

And there is a refurbished laptop, which is cheaper, of course, but it's slower. Which one are you going to buy? I mean, if you can afford both. I'm not talking about money here.

[Speaker 2]

I think, in honesty, I will go with the new one.

[Speaker 1]

Yeah, you see. That's why recycling is going faster and bigger than refurbish. First, let's say our country is poor.

Here, people are not... They use the appliances, they use the technique, they use everything, the cars, they drive the cars. To the end, I mean, we have a strong culture here, national culture to repair and to do it by ourselves. But at some point, you need to throw it away. And you need a new one.

And only if you can't afford to go for a second hand.

[Speaker 2]

Okay. Okay, I guess it's I mean, you're right. So it's really about like sensibilization, sensibilization, and they're so like, yeah, sensibilization.

So like, what would you like think as an idea, I will say to increase the sensibilization in terms of the population about those issues?

[Speaker 1]

What we are doing here, we're trying to know from we made two movies, you can see them, I will send you a link in YouTube. We were still we produced two five minutes movies, one for male public or the other one for female to try to

show you know, the process because maybe one of the biggest problem is that people they don't know what's going on. We are talking everyone is talking about recycling.

But what happened? What is recycling? What is it?

You know, it's this is kind of a gray zone. So we would try to produce the movie to to make a publicity campaign. And this year, a few days ago, we produced this, we finished a short one minute video clip for with kids with the song, you know, for our company to engage the kids, because this is the only way we go.

And we go to school, I go to give lessons in schools and kids that by the way, they're very informed. And they know, you know, a boy, he was 10th grade, few months ago, he asked me about electrical cars, and he was so well prepared. So I was, you know, at some point, I was like, exam.

And when you explain them, you know, this is bad, you don't need to throw it in the in the common ways, because it's dangerous, it's hazardous. And you tell them exactly what is dangerous. What is it, you know, lamps, you know, gas discharge lamps, when when it's broke, the mercury, you don't see it, but you, you inhale it, and it goes in your body in your, and this is and when you explain it in this way, they understand.

And this is our job, you know, we go and we try to explain we made many articles about this. And still, there are many people that they because when it doesn't affect them directly, it's somewhere in the somewhere stays, you know, in the in the public care, but where is it? What is it?

It's and I don't want to reach the point when some because usually people weren't when there is a problem, when something bad happened. We don't know, we don't want this to be reached. We don't, we don't want this, we want to prevent it. And prevention is very important.

[Speaker 2]

It's really interesting. You could send me the link of the two films on LinkedIn and I will look at that with pleasure. It's very interesting.

And so maybe like more like related to your position in terms of the European Innovation Partnership. Like, maybe could you share with me some insight on the challenges that you could face between like implementing the European strategy? And like, like, yeah, in this implementation, like what are the challenges that you can see?

[Speaker 1]

Challenges is maybe I gave you a hint is that different standard of living okay, between the countries, because, you know, when you when you see a research, you see that in Switzerland, they change the appliances. Most often, the poor the country, the rare is this or the appliances are cheaper. So this is the different standard of living is, is very important.

And other thing is when they're from the other side, when the population is younger, and there is a lot of construction, that means the buying new appliances, when when it's so age is also very important. And you can get I think, in numbeo, that there, there is a lot of information about this. But yeah, this is a challenging we are European Union, but countries are different.

And the culture of the people is, is different. And consuming consumption culture is different.

[Speaker 2]

And so how can you like, how can we, let's say, face the specific challenges at like the European level, because there are some legislation that are selected, for example, by the government in my country, I guess, about, about that specific matter, but how can we...

[Speaker 1]

Every country gives, gives its opinion, when it comes to, you know, to legislation. And sometimes it's good, I see, they think we'll get in legislation many times through the years, we had like advantages from the European Union. So I think when the our Ministry of Environment and other ministries of environment, they give their opinion, and it's well made, I mean, it's goes inside the directive.

So I think it's flexible. The legislation is flexible, according to the countries. And that's it, publicity is needed to show, because when you see the news, you see that it's all the time, okay, not all the time, most of the time, it's like negative when we talk about waste, and materials. And I don't think this is right. I think this must be changed.

[Speaker 2]

Okay. Okay, I see. Thank you. And also, like, maybe, since the implementation of the new legislation of the European Union, so have you seen maybe some negative impacts related to it?

[Speaker 1]

A negative impact?

[Speaker 2]

Or positive? Negative?

[Speaker 1]

I don't know. I don't know if it's in every country, but sometimes, the lack of, I don't know, the small companies, they're missed in the bigger picture. This is because it's not 100.

There are gaps in the legislation that must be filled up with, in my opinion, let's say, in the field of waste and recycling of appliances, only companies which have certificates, you know, these are European standards, they must be the only ones who treat, this is my very strong opinion, because why are these standards for them? You know, to hope for the conscience of the producers, yeah, some of them, they're very conscious, but some of them, they're looking just for a cheaper price. So, I hope, this is my, you know, biggest hope to these standards, which are there, they're written, they're made very well, they'll be mandatory to everyone, to Europe.

Because I know, for example, for Czech Republic, I'm not sure about the figures, but the difference was big, they made the standards mandatory there, and from thousands of recycling companies that received WEEE, there are a few hundreds left, which are certified, they work according to the standards, they work according to the health and safety, they treat the appliances in the best way, you know, according to the, this way is very strict. We are the only company in my country who has a specific certificate, and I can tell you that this audit and implementing this certificate and this standard was very hard.

I'm 20 years in this company, but this was one of the hardest thing to do, but okay, but we have it, and then thousands of companies that work with us, they don't have it. And we are in, you know, in the same field. And at some point, we say, okay, why to invest in better installation, which gives us better treatment, better environment, cleaner environment, when the neighbor next to me, he, without any investment, he can smash the TV, the CRT monitor to take out, you know, phosphoric powder, and just to take this copper wire, which is on the back of the CRT monitor, and the other to throw it away.

This is not fair. I mean, this is something that I would like to see strong standards, and this is the way to a strong standard for recycling, a strong standards when producing.

[Speaker 2]

Okay, so for now, like, with the actual legislation and with the European Union, like in some countries, the standard is not the same between the companies, so it's still not mandatory in some countries to have those high level of certification that ensures that you pay attention to that.

[Speaker 1]

Well, I know, France, for example, and we've been last month in Bordeaux, in Derichebourg, I don't know what it is, if it's right, you know, Derichebourg, but I know that it's the biggest one. Yeah. And they're part, they work for consortium, and they were certified, and it was perfect.

I can tell you this is one of the best facilities I've seen. But for them to be part of the, to work for the consortium, it's mandatory to have the certificate, which is great. And everywhere, everywhere must be like this. Because we're talking for environment, when you're talking for rules, this is the way to see them working.

[Speaker 2]

Okay, perfect. That's really interesting. And do you see maybe other gap in terms of the legislation that's, in your opinion, are really important to take on?

[Speaker 1]

This is something that I see, I told you, this is the contradiction between the different directives, which are between usually health and safety, and respecting lack of mandatory standardization.

[Speaker 2]

Yeah.

[Speaker 1]

This is, I think, this will change the game completely, if standards are mandatory, when you, when you, in terms of recycling waste, and yeah, it's a whole process of permits and war publicity.

[Speaker 2]

Okay, thank you very much. And maybe just to have your opinion on that. So, do you think that the objectives of the CRM Act, and this legislation on critical raw materials are feasible, in your opinion?

[Speaker 1]

Yes, if companies and countries are conscious, and they have the strong will to implement them, and they made the rules and control, and after that control is

very important too. If companies and recyclers or mines, they keep the, they follow the rules, this is something that is, and I think they're gonna work. Yeah.

[Speaker 2]

Okay, perfect. And yes, so I am looking, because I had a lot of different questions on that. So, yes, yes, yes. So, yes, maybe I had a question more in terms of social and in terms of employees on a company like yours. Do you think that's the change, or in terms of legislation, will have an impact for the employees and also people that are interested in this field?

[Speaker 1]

Yes, because, you know, more rules in legislation, more job. I mean, it's more complicated, because when you work, again, according to standards, you need to follow strict rules. But my experience shows that when people know exactly what they need to do, and what they're responsible for, they do their job great, you know.

When, this is very important, people to know exactly what they're doing, what is their job, what is their requirements, what is their responsibility, what is the time they need to do, and as more the companies may clarify this, the better they work. Again, we saw this like a table on the wall that was appointing every person in the facility where is his place, and it was with his name. And when you stand with your name, and when you know the responsibilities, what it's easy to follow the rules.

So, if things are clean, if they're well written, if they're understandable for the workers, because, you know, not our biggest, how to say, value are the people in the facility, and usually the workers, because there are some very, very good workers that are very good with precious metals, very good with non-ferrous, it requires experience. It looks like a dirty job, but it's not. It requires some expertise, it requires sometimes to be fast when you disassemble things, or to know what to not miss, what to do, what is dangerous, what is not, what is hazardous. So, yeah, more stricter legislation affects immediately the labor, the people in the facility.

[Speaker 2]

And with like a stricter, I would say, legislation, is it still easy for you to hire like new people to face the demand and also that have a high level of competency? Because I guess that more legislation increases the level of, I mean, competencies that we need.

[Speaker 1]

Yes, we need to hire workers that are able to think, they are able to understand, not only able to do the labor, you know, but also to understand what they're doing. That's why when we find these workers, we take very good care for them, because they're very precious. And yeah, it's special.

New people, it's like every job, you know, someone eager to stay and to study. Others, they say, oh, it's too complicated, you know, no, no, no, I don't like, I'll go there to do something else. And also, this labor market of lowest level of workers, they move a lot, they can change companies very easy.

And that's why we're trying, you know, our educated people to keep them and to improve them and to send them, we give a lot of incentives, so, you know, healthcare or provide many things to them to just to keep them happy, because they keep us happy with their work.

[Speaker 2]

Perfect. It's a very good insight. Thank you very much. And are there maybe other insights or considerations you think that are crucial for my research and that we haven't taken?

[Speaker 1]

I don't know. I think that you need to make to see the difference in the standards of the countries. I don't know if you know this Numbeo website.

[Speaker 2]

Numbeo? No, I haven't seen it.

[Speaker 1]

Numbeo?, you can compare cities in Europe and compare everything, you know, labor, labor cost, rents and this and you, this is something that it will show you the difference because this economical difference no one is talking about, but it's very important in terms of waste and it's very important in terms of raw materials.

[Speaker 2]

Okay, so the difference between like countries related or so to the European legislation.

[Speaker 1]

I can tell you when we started last year, it was in the beginning last year, we made the research of who are the people which are more eager and most eager to buy eco stuff, you know, greener and to live greener. Do you know what was the result? The biggest group of these people are women which are older than 35, 30-35 years old.

They have incomes higher than average and they live in the suburbs because these women, you know, they have to care. They don't think about their survival, you know, their kids and that's why they step forward. They think for the future, they think for the environment, this is very and the caring nature of women.

So, this is something for me which is very interesting because not many people imagine that these are the biggest buyers of and bigger supporters of the of the green deal, of the circular economy and they grow sometimes. So, they even being fanatic in this field. Yeah, this is the social point of social part of the raw materials. It's very important in consumption power. It's very important.

[Speaker 2]

That's really useful because before doing the interview with you, I thought this was like the most interesting part was also maybe in terms of offers. So, for example, like mining company or like waste management company, recycling company, all those. I was curious about the impact I would say on those companies with this legislation but now I noticed that in fact the demand side, so the people side are so crucial because if you don't have like the specific demands for those products that have been refurbished or so recycled and for yes, products that have that use let's say waste inside them, it's hard for your kind of companies to let's say develop themselves, right?

[Speaker 1]

Yes, because it's difficult to engage people and they don't know what you're engaging with and now it crossed my mind you can check this iFixit website which is a community. I like it very much. It's a community for repair and they even produce their own tools and it's a great step forward for repair but I can tell you that waste always be there, you know. Not many people has that time and they're not much eager to repair and it would be great to go there but I'm not very optimistic about this.

[Speaker 2]

Okay, perfect. So maybe a last question about that like do you have any maybe idea in mind of people I could contact for the next part of my research?



[Speaker 1]

You can ask. I have it in my LinkedIn contacts, iFixit. She was Spanish but I .....I think it's her name because there was a conference in Salzburg in January which was for right of repair and something and she gave a very nice presentation. I like very much Elizabeth O'Reilly which is from Irish. She's a manager, I think waste manager or something European Union manager for the Irish collective scheme.

She had a really nice speech again, a nice presentation. Also, you know, there is a boy that made a very great impression to me in Salzburg and he's in this field of repairing. His name is P5. I will send you his profile and really he made a great presentation. He's now in this field of right of repair and I think he'll be very useful to you.

[Speaker 2]

Thank you very much P1 for your time and also for those insights. I feel that right now I have a better understanding about the demands but also like the information issues and also the findings of procedures. You give me a lot of very interesting insight and I will still think to it. If you have interesting things to share to me, don't hesitate to send me a message.

[Speaker 1]

If you have some questions I'm available so you can ask too. For me it's also interesting and when you make your research I'll be glad to read it because it's interesting for me too.

[Speaker 2]

I will send it to you for sure. Thank you very much P1 for your help and for your time.

[Speaker 1]

I've been useful.

[Speaker 2]

Yes, don't doubt about that. Very useful. Thank you very much.

[Speaker 1]

Thank you very much. Have a great day.

[Speaker 2]

Have a great day too.

Company that promotes the metals and minerals mining industry

## Interview with P2

[Speaker 1] = P2

[Speaker 2] = Gauthier

[Speaker 2]

I'm more from Charleroi, but I see more or less about a capital city. So, but otherwise, thank you very much for your time and also to be willing to contribute to my thesis. So just to explain you a little bit.

So I am a final year student at LSM at UCL Louvain and I do my thesis on the European strategy related to critical raw material. And I am really trying to analyze the strategy of the European Union based on the CRM Act. And I focus more on the environmental and social impacts. And also for that interview, I can ensure you that everything will be confidential and anonymous. And can I ask you maybe if I can record the sound of the interview for me afterwards to be able to take notes?

[Speaker 1]

Sure, no worries. You know, all we do is very transparent and open. And all what I say is based on the ambition to be very thoughtful and transparent.

And so there is nothing that might be something that is not that well said, but that's no worries. You can use everything. You don't need to send me all of what you are going to write before you write it.

I trust in people that they do what they want to do. And so I don't see any... So you don't need to ask for a proofreading from my side.

[Speaker 2]

Okay, perfect. Thank you very much, Mr. So maybe can you start by introducing yourself and sharing a little bit about your professional experience? How did you arrive to your current role as director general of a Company that promotes the metals and minerals mining industry?

[Speaker 1]

So, yeah, so maybe maybe I start with myself. So I'm x years old, married, x children. I'm an economist. And I'm passionate about Europe because I was born here in a capital city. I grew up. My father was x.

My wife is working for the EU. My brother is working with the EU. My environment is very much focused on the development of Europe.

And I think it's one of the biggest successes, peaceful peace agreements that we've ever seen at worldwide level. I started off my career studying in Germany and in Belgium and then working for the Chamber of Commerce. Then in x, I came back.

And since then, I'm a lobbyist doing advocacy at a capital city level for the industry, first in textiles and in nonferrous metals associations, the German one. Then in a company producing copper, Belgian-German company. And also in the steel sector.

And now since three years, I'm heading a Company that promotes the metals and minerals mining industry. Those three years have been very challenging, but also very rich in lots of things that are happening because there is a huge paradigm shift. Before, mining was something that was not supposed to happen in Europe anymore, which is the case a bit for Charleroi because it was mainly coal mining.

So this is definitely something that's going to end. Coal mining is not happening in Europe anymore. Lignite in a few countries.

But all of the other raw materials are really indispensable. So this is something where I picked it up in 2021 in the middle of COVID. And now we are here with the Critical Raw Materials Act.

We have had several presidencies, the French, the Swedish, the Spanish. And so there is a lot of legislation that has been put forward, a lot of initiatives, a lot of high-level worldwide discussions happening. So it's a fascinating time.

And I'm passionate every day to go to work and to design and shape the future of Europe because at the end of the day, some people might say, you are working for the industry. You only want to fill your pockets with money. But this is not true.

What the industry is doing here is certainly something which is in support of the development of the European society. So the key words are autonomy, resilience, ESG compliance. So if you want to shape the world to a better world and with the aspiration of 2050, then we are really on track with what we are

doing here through the team with all of the policy fights that we are covering, environmental, energy, climate, industry, taxonomy, sustainable finance.

So we are really full on track. And I have already mined in my emails a good email that I'm going to send you later or on the way with several studies underpinning, underlining, highlighting what I've just said. At the same time, a presentation that I will give in a capital city next week.

So you have that for your reference as well in your work.

[Speaker 2]

Thank you very much. And it's also impressive to see how you are passionate about what you are doing. It's really nice.

And maybe could you tell me, how does the Company that promotes the metals and minerals mining industry actively participate in the development and implementation of the CRM Act? And what strategic adjustment have you made to align with its objective?

[Speaker 1]

So we want to be, we are the voice of the mining industry. So there are not 150 different mining associations. There are different associations that are dealing with extraction, more in the quarries, more in the sand and gravel construction materials.

But we are, let's say, a bit more in the high tech materials that are needed for all of the high tech equipments, products, be it e-vehicles, windmills, solar panels and all of the high tech technology. So we have been there as an open, transparent interlocutor to the European Commission. We have been liaising at all steps with council, parliament and commission on this important matter and in the philosophy of demonstrating how important it is to tackle that issue.

So we've been always putting our brains together and trying to deliver on that agenda. And now the Critical Raw Materials Act is a very, very balanced approach between the societal ambition to have a supply of raw materials on an ESG standard and the environmental ambition that is the core of keeping the high level of environmental ambition in Europe and the standard of living that we have. But a bit also pushing and saying it's not the nimby that should prevail, but the bimby, best in our backyard, because we can do it here at the highest level of performance without child labor, without detrimental impact, with high climate policy ambitions.

So the overall setting is that at the end of the day, our aspiration is also that the rest of the world is following that route. So we need to document that it's possible to do it here. So if we would simply say we rely on sourcing all raw materials, all needs for our society from outside of Europe, then the Green Deal is made from the rest of the world, but not from us.

So that's not the ambition that we have. So we need to prove that we can build a society that starts in the mine because the raw materials from the mine are indispensable because the urban stock that you see around us is not delivering the lithium, the cobalt, the copper needs, the aluminum and all of it. There is a pathway also that includes the recycling, the circular economy, which we are also using, but we need on that pathway a lot of primary resources.

So I'm very transparent. It's October 2021 when the topics of raw materials came up. And I forgot now, I think it was magnesium metal at that time that was very scarce and China had a lot of austerity on it.

And then everybody was scared because no airplane in the air without magnesium metal, no forestry industry because all the chainsaws from steel are made of magnesium metal because magnesium is lighter and stronger than aluminum. So you need for all of where you have a lot of friction, airplanes, chainsaws that you hold the whole day in your hand cutting trees. So every gram that is lighter, like in cycling, you need to make your bike as light as possible so that you can win the Tour de France.

So your chainsaw needs to be very light to win the battle and be able to cut a lot of trees. So magnesium metal was scarce end of 2021. And then everybody said, OK, we've already put it in the Green Deal.

We've been talking about raw materials since 2008 in communication. Now we need to make something. And then there was a working group in the Compact Council and they said, how can the Commission help the EU to deliver on that scarcity?

And then it went on. Then the French presidency came on. Then the topic of raw materials became more and more pertinent because at the end of the day, one of the key sectors for Europe is the automotive sector.

And we need to secure the lithium, the cobalt, all of the technology metals and minerals that go into the battery technologies and the rare earth for the permanent magnets in the motors. So all of this came up. And then France had, I think, quite with the rapport Varin, which is, I don't know if you are aware of who is Mr. Varin. So there was a report in France that highlighted this causality

because at the end of the day, it's most important that we all agree on what we see. We might have a different opinion. We might say we don't need mobility, so we don't need the rare earth and we don't need all of this.

That's OK. That's a choice. But that's a choice that society is going to make and citizens and legislators need to pick that up or reduce consumption and say mobility is completely different.

But if we go and say that mobility needs to happen and lithium and all of this is necessary, then the rapport Varin was highlighting this. And that was in the French presidency. And then the first compact council, which was more or less at the same time of the Russian invasion of the Ukraine, then they started to understand and to see and discuss at council level that the raw materials topic is very important, very pertinent.

And then to make it a bit shorter, then the invasion came, then everything focused on gas, but still. And then the commission came up with the Chips Act, which is to secure all the electronic chips. That's why we are building huge facilities, plants to produce microchips and not to rely only on Taiwan, where I think 50, 60, 80 percent of those microchips come from.

And at that time, we also then discussed and we said, no, we need some kind of raw material strategy at the EU level that accompanies France. And France was also very eager to push the commission to work on that. So it came one after the other.

And then it has led to a lot of initiatives, work, discussions throughout the French presidency. Then came the Czech presidency. And then we had in the beginning 2023, 16th of March, one day before my birthday, we had the birth of the Critical Raw Materials Act.

And as I said, this is a very balanced proposal. Then the Swedes really pushed for a fast-tracked realization, finalization of this. We had good discussions with Nicola Beer, Bentele, Enrique Hahn, all involved.

I think everybody and I've never heard anybody say we don't need the Critical Raw Materials Act. So nobody really challenged us that it's not needed. There were different elements that needed to be added.

So that has been added, be it strong ESG requirements and also a lot on what has been defined on what is a strategic project. And we also need to be aware that the Critical Raw Materials Act is something very, very complex. It's a very huge piece of legislation.

It's not simply just, let's say, one standard. It's a lot of things around permitting. It's a lot of things around environmental footprint, life cycle assessment.

But it's still also focused on strategic projects. What is a strategic project and how can we deliver on the agenda mining, processing, recycling? So it's not only about mining.

So it's also a very broad resource supply agenda. So it's really something that hopefully is going to materialize on the ground, provide new mines, help foster the development of existing mines and the same for the processing and the recycling because we don't need to mine something here to ship it to China. So we need to work on our own agenda and our own needs and we need to contribute.

Now, having a mining target till 2030 of 10%, 40% processing and 25% recycling might not sound a lot. It's a lot for where we are at this moment. So this also clearly highlights that we have neglected the commodity sector, which is not only a phenomenon for the metals or the minerals, but also for all of the others.

So paper, glass, chemical sector, which has also led to something that you need to refer to as well in your study is the Antwerp Declaration, which is something that had just happened, I think, was it one of the last weeks of February, around the 20th of February? So it's the Antwerp Declaration. You can find that when you Google it.

It's an agenda, 10 requests to the new incoming commission on how to add to the Green Deal an industry deal, meaning that you need to have an industrial basis and an industrial connectivity between the Green Deal and the society and the industry. So we need to get the industry deal into the Green Deal. That is, in very short, the request from this Antwerp Declaration.

[Speaker 2]

Thank you very much for all this really interesting information. And I will for sure check the Antwerp Declaration. And I was also wondering if you could elaborate in your opinion, what could be the main social impact of the Critical Raw Materials Act?

Because here in the Critical Raw Materials Act, it's also developing mining, notably in Sweden also. And it's a big piece of legislation that will have a lot of different impacts. So I was really curious to know what's your opinion about that.

[Speaker 1]

So the most important is that we acknowledge that we need the raw material. So if we don't mine the lithium and the cobalt and we don't have access to it, it means we can't build windmills. So we can't fight climate change.

So if we are not going the path of doing more mining in a sustainable way with a minimal footprint, then it means we can't tackle the climate change. Because on sait pas faire des omelettes sans casser des œufs. You need to do something to solve your problem.

So if you are hungry and you want an omelette, then you need to break some eggs. So we need to go for the mining. And I can guarantee you that mining today is possible in a sustainable way, not meaning renewable way, but in a way that is putting the environmental, the economic and the societal needs at the same level.

So that is sustainability. The definition of sustainability is to meet the environmental, the societal and the economic needs. So I'm fully convinced that mining is possible.

And it has some trade-offs, but it's the same as building a road or having an airport or something else. So you need to have an impact at a certain location because all of the ores and the ore body is something which is very specific in the topography of the earth. So you need to mine where the ores are.

So you need to explore where you think they are. And you need to find a good way to have a minimum impact on the environment and on the society that is there. So if you refer to mining in Lapland and the question of indigenous people and communities and all, so you need to respect all of this.

You need to find an agreement between the different actors. And society needs to, and the politicians need to find the compromises that are needed to be shaped and reached so that we meet the needs to have the raw materials and we respect the societies and the people who live there. I always refer to one good example, I think, and it's not to be provocative or something.

It's just simply to maybe open a bit the eyes on some parts of the society that might be a bit driven by hypocrisy. That means if there wouldn't have been a national in France in the 80s for the TGV lines in France. So the railway system in France is the best railway system in the world.

[Speaker 2]

Okay.



[Speaker 1]

Also the cleanest railway system in the world.

[Speaker 1]

That's the mobility that we need for the future. So if you wouldn't have had the décret National in France that would have allowed to build all of that infrastructure, we would not have that asset. France would not have that asset today.

[Speaker 2]

I understand the trade-off between, I would say, sustainability and also achieving the Paris Agreement goal and also society in general. But when I also read the CRM Act multiple times, I was curious about it because I saw a lot of things related with, I would say, environment and a lot around sustainability, but less about social. So based on your experience, what recommendation would you provide, let's say, to minimize that social impact if you had to add something to this piece of legislation?

What's the most important point in your opinion?

[Speaker 1]

I think we can already recognize that we, on the social part, we are very developed in Europe. So labor rights, your civil rights, your constitution. I think nobody can come and kick me out of my office here.

So I have a right to sit here. So I have a right for demonstration journalists. I'm not really an expert on that field, but I feel comfortable living in, and I don't want to live somewhere else than in Europe, because I think our, maybe not in Hungary, but don't quote me on that.

But I think our rules of law are good. I think the key of legislations that our society are built on is good. And if you experience injustice as being in Sweden or in Bulgaria or in Greece or in Spain or in Germany or in France, then you can go to the courts, you can go to the police.

So I think we don't need to repeat in the Critical Raw Materials Act, the fact that you have civil rights and that there is a rule of law that protects you from injustice. But that is not only, you know, I appreciate your question, and I don't mind discussing this, but if there is injustice, injustice is not concentrated in mining sector. It can be with the car dealer or it can be whatever, commercial or private, it can be your neighbor.

I do acknowledge that mining in the world and the legacy of mining is not really the best. And the image that the mining sector has is due to the fact how it has acted. And you can do mining in a very destructive way and in an unrespectful way, be it for the environment, be it for the people that live there.

If you look at criminal artisanal mining, gold mining in Amazonia, they simply kill the people who are there and try to get the gold. But it's the same for the wood industry there, and it's the same for any kind of other activities, maybe tourism or whatever is happening in Amazonia. So I'm very happy to represent the mining industry that is in the EU and the EFTA and not in the rest of the world, because I would not want to represent mining at worldwide level.

But it is very clear that the Critical Raw Materials Act is missing out on many aspects of social, societal. Although I think it's mentioning that one of the key challenges of the sector is the societal acceptance. And I would say it's true.

And the societal acceptance is something which is difficult to shape because it's in the psychology. It's something that you need to communicate on and good practices. So we want to demonstrate very strongly with presentation of good practices.

So transparency and communication builds trust. So communication, that's something that you can buy because you can do. But the transparency is something that you need to shape, that you need to design, that you need to do.

And that's why also I'm convinced and passionate, like you said also, that I'm doing a good job and I'm representing an honorable, respectable industry. And that what we are doing is indispensable for the future. And that we have a license to lobby because the coal industry has no license to lobby.

They have a license to die because we don't want coal, although it will take some time. And I'm not shaping that environment, but it's a difficult environment. But for sure, there are little politicians around Brussels and around those who have embarked on a full Paris alignment that talk about coal and oil and gas.

So there is a lot of change happening there. But for our sector, which is industrial minerals and base metals and technology metals, this is completely different. We have the full possibility to...

Wait, I will close.

[Speaker 2]

Yeah, no worries.

[Speaker 1]

So I'm talking a lot, Gauthier.

[Speaker 2]

Thank you very much for that very good insight. And I am asking it to you because it's related to my research. But if we switch maybe more right now on the environmental impact, like could you elaborate on the environmental impact of the CRM Act?

So by that I mean, for instance, like as a strategic project, now it's, I would say, easier to launch it, but you need some certification. Like what could be the impact, really, like in your opinion, the environmental impact of the CRM Act?

[Speaker 1]

Yeah, there is no immediate environmental impact. So it's not, there is no direct causality. You know that.

It's not opening the import or the export. The Critical Raw Materials Act is underlining the need that we need to work on the supply of raw materials. And it's clearly highlighting that we can continue to source outside of Europe, but then it needs to be along or we need stringent criteria for that.

And it's only focusing not on import export, but on strategic projects. So we can, and our request and what we are just putting in our manifesto is to see that we will hopefully have in the mining part of the Critical Raw Materials Act 20 to 30 strategic projects. So we are not talking about millions of mines that are going to open left and right and in the Champagne and just next to the Eiffel Tower or something like that.

So it's going to be quite still a small part of activities, but hopefully more because up to now, we have not been able to deliver on that agenda. And we've been relying on the rest of the world to provide us with raw materials, which is quite an egoistic part. It's like simply saying, we buy everything out of the shelf and we don't take care of the environmental and societal impact that it has.

So we will hopefully open new mines. Those mines are usually coming with a long-term commitment. They have a lifespan.

Some of the mines that we see in Europe are open since hundreds of years and some are depleted. Some mining projects that are now in the pipeline have a

lifetime of 15, 20, 30 years. And all of this is clearly inside of the existing legislation already today, which is based on nature restoration, biodiversity compensation.

So if you look at a mining permit today, it's very stringent on all of the nature restoration and environmental minimization of the environmental impact. So if you look at the mining permits that are handed out today, you will not find something which will have a huge environmental impact.

[Speaker 2]

But like on the perspective on mining companies, what would you say? Like if you take the CRM Act right now and the Ideal CRM Act, I would say for mining companies, what is still lacking? Like for example, if I understood well, it takes time to, even with the actual legislation, to start a mining project.

And also because of the volatility of the price, it can really impact them. So what would you say is still lacking in terms of legislation related to CRM Act for mining companies?

[Speaker 1]

One thing that has been, I think that needs to be added is exploration. So we have worked on a fast, efficient, good permitting procedure. Now we need to have the capacity building in the authorities and lots of things still need to happen.

But the exploration in the Critical Raw Materials Act has only been pushed to the geological surveys, which means we want to strengthen geological surveys. They need to set up. But at the end of the day, it's smaller exploration companies that go out and try to get the permit for exploration and do all of what is needed to find something.

Because at the end of the day, only out of thousand exploration projects, one is materialized and becomes a mine. So you see the huge need. So if we want 20 to 30 strategic mining projects, we need 20 to 30,000 exploration projects.

And do we have that? Do we have that in Europe? So now a lot of the projects that are in the pipeline and are going to hopefully mature and be put forward to the commission has been already explored.

But in the mid and long term, we need much more on exploration. And what is the bottleneck for exploration is de-risking. So it means that we need to find some financial tools, some EIB, funding commission, raw materials fund for exploration or something to de-risk the exploration.

And then also to mobilize a bit European investments around this. Because exploration today is financed from Sydney in Australia and Toronto in Canada stock markets. It's Canadian and Australian companies that are looking around Europe to find the minerals and metals that are needed.

So there is a lack of societal industry and banking sector, investor sector interest in Europe, which is logical because we have not worked on that. We have not relied on European raw material sources. So London and Frankfurt are not looking at Europe on the raw materials side.

[Speaker 2]

And maybe you're so here we are talking about exploration afterwards. You also mentioned during, I would say, this meeting, mining, processing and recycling. And so here it's, I would say, the main step.

And would you say that with, so there is recycling, but you can also do reusing or like other type in terms of circular economy, would you say that it is well promoted in the CRM Act?

[Speaker 1]

It's not, you know, the Critical Raw Materials Act is not going to solve all our problems.

[Speaker 2]

No, no, no.

[Speaker 1]

The Critical Raw Materials Act has a focus on raw materials supply. And then if you look at the question of recycling and circular economy and things like eco design, battery directive, waste shipment, waste framework directive. So there are many, many, many environmental legislation that are tackling all of the recycling aspect.

And that all rightly so, because it's, I think it's very important to, if we mine something, then we need to use that ore and that mineralization in the best efficient way. And if it's a metal, then recycle it. Because it's quite obvious that it's not possible to recycle potash or salt that you put on your steak or potash that you put for agriculture on the fields.

So it's quite obvious that there are minerals that are consumed, that are not leaving the world, but they need to be used in the most efficient way. And so

there is a lot of agriculture legislation that needs to manage how fertilizers are managed. So you see that it's the causality.

Yeah. It's the same. It's not that I'm saying that you are saying that, but many, many people ask me, yeah, but don't you think that we need to reduce consumption because we are using, we are overusing the earth and everything.

And I say, me personally, I think, yes, we need to be cautious of our individual footprint and we need to be cautious what we do every day. What, I don't say that we all need to become vegetarian. I don't say that we all need to stop traveling and going on holidays.

And, but still, I think we as society, we need to know what we are doing. And, but that's not the, that's not the choice of the industry. You can't say you're not allowed to mine because our footprint is too high.

The footprint, is it bad to produce or is it bad to consume? I would say there is a huge responsibility for the consumer. Now the products need to be designed in an efficient way.

It needs to be clear what you are consuming. So like in food, you have ABC, is it good to healthy? What is, is it bio or not? et cetera

So you know something about the footprint. With products, you know the electricity category of your fridge.

You know how much, what your hairdryer has, but you don't know under what conditions and with what raw materials this fridge has been produced. This is something that we need to deliver. It's clear that we need more transparency on the products and where they come from and how they are produced.

And that will also strengthen this approach best in our backyard because that is a bit of reshoring. We talk about reshoring Chinese investments in the automotive and other sectors. I think it's the same for the mining.

We need to do BIMBY best in our backyard because we know how to do it here with all of the environmental acquis, societal acquis and also innovation and technology acquis and skills acquis because at the end of the day, we need to also have a societal economic basis for our society. So losing the energy intensive industries, including the mining sector would mean that we de-industrialize Europe. And if we lose the automotive sector to the Chinese, it will cost a lot of wealth for the European society.

You see it in Charleroi.

[Speaker 2]

I see it very well, yeah.

[Speaker 1]

Now, it wasn't to be safe, the coal industry, but there's also a lot of automotive suppliers in Charleroi or in Wallonia. So after losing the coal industry and the steel industry, if we lose the automotive industry in Europe, then Charleroi and Wallonia and many regions around Stuttgart and Germany will certainly lose a lot of employment and wealth.

[Speaker 2]

Thank you very much for this very good insight. I see that we don't have a lot of time left in the meeting. So maybe is there anything else you would like to add that we haven't covered in general?

[Speaker 1]

I have nothing to add, Gauthier, just I want to thank you for your initiative and send me your final thesis and reports and talk good about me, Company that promotes the metals and minerals mining industry and the mining sector and spread the good news that there are a couple of mining nerds in the capital city that are running around and singing the song of the mining sector. We have very good relations to the trade unions. We have some good relations to the NGOs, but I feel that even in the field of the NGOs, there is little resistance to the fact that we need to mine more.

It's more about how we do it, not should we do it. So let's talk about the how we do it. And we are very much a constructive partner to this.

I will bombard you with a mail now with links and things. Let's play ping pong, like I always say. If you have more questions, just come back.

Not too many at the same time, but I'm happy to help you. And if you want me to read and help you with your work, don't hesitate. I will do my utmost to support you.

[Speaker 2]

Thank you very much, P2. It's very kind of you. And yes, if you have interesting resources, don't hesitate to send it to me. It would be really helpful. And also, if you know people, if you could recommend me people that could help me to gain further perspective on that topic.

[Speaker 1]

Okay. I will immediately put at first my peer colleague who is, who is the head of DG of non-ferrous metals association. So if you want to contact him, I will put his contact in my mail that I'm just sending to you.

[Speaker 2]

Perfect. So if you have a contact that could really help me, it will be super helpful. And thank you very much, P2, for everything.

And I have now a bigger perspective and a better perspective on the role of euro mines and also the necessity of mining in Europe and everything linked to it. So thank you very much for your time, P2, and also have a nice day.

[Speaker 1]

Yes, you too, Gauthier.

[Speaker 2]

Bye-bye.

[Speaker 1]

À la prochaine.

[Speaker 2]

À la prochaine et merci beaucoup. Au revoir. Au revoir.

[Speaker 1]

Je t'en prie, je t'en prie. Au revoir.

## Interview with P3

Speaker 1 : P3

Speaker 2 : Gauthier

[Speaker 2]

Perfect. Perfect. Thank you. So before asking you to introduce yourself, I will just explain you quickly how the interview will work. So the focus of my research is really to analyze the strategy of the European Union on the critical raw materials and more specifically as defined on the CRM Act. And I'm really interested to the social and also the environmental aspect of it.



So that's why I'm really trying to interview a lot of different experts like you to be able to have a lot of different insights and to come up with a recommendation. Also, I can ensure you that this like everything that will be said during this interview will be like confidential and also anonymous because it's for my research. And Also with your permission, can I record our interview like that I don't need to take notes and I can really focus on you.

[Speaker 1]

Yes, Gauthier, yes, sure. You can record. Also, if need be, I understand that you want to treat it anonymously, but if you have to make reference to me, feel free. I don't think that I'm bound by any other conflict of interest, but so it depends. But I'm also curious to hear from you. When is your research finished? And I obviously I would like to see the end product, what you get out of it.

[Speaker 2]

Yes, for sure. I could send it to you when I finish it. So normally it will be at the end of May or in September. It's really depend on my research advance, but that will be before September for sure. And I will send it to you. And so maybe can you introduce yourself and also describe me your journey to becoming a recognized expert in this field?

[Speaker 1]

Okay, yes, I can. And then well, thank you for all the compliments, recognized experts. Well, maybe, but at least through my background, I have been in just almost opportunistic experience. I've been able to have exposure to various parts that are now, various parts of the sector that are now coming together very well under the Critical Raw Material Act. And so I'm a geologist by education. So I started with studying rocks, started with a mostly a research career. So I have a PhD in geology from the Netherlands. But I was very quickly I was interested in raw materials, mining, exploration. And so, but also our society's use of mineral resources.

And because I came from the Netherlands, as I always say, jokingly, a country without rocks, I had to go somewhere else to be closer to the subject. So I became my own export article, but also I engaged a lot in different societies, different cultures, different geopolitical climates, where everywhere around the world in different settings, companies, governments, people are in some way involved or dependent on the exploration for mineral resources, and the extraction of mineral resources. And it also maybe comes to your point on the social and environmental aspects. Because clearly, you can also learn from the

almost the do's and don'ts of that sector development. I cannot take personal responsibility for, I would say, the various adverse environmental and social impacts that I have seen. But at the same time, I also hope that the sector as a whole can improve on its environmental and social performance. So that I have done for exploration and development for about 20 years. And I think you are, well, I can hear from you actually, at least you are francophone. Are you French?

[Speaker 2]

I'm from Belgium, so close to the Netherlands.

[Speaker 1]

Yeah, okay, exactly. Because I worked for the French Geological Survey, BRGM, for a while. And that it may be French civil servant, all of a sudden working out of a French political context, which was again, totally different.

Then I worked as a technical director for my own exploration in Southeastern Europe and in the Caucasus, notably, with again, in new frontiers, areas that were not explored previously. And I already had experience in Africa, South America, so all kinds of different cultural settings. Then I made a big career move.

The biggest career change was in 2010, when I stopped my technical work in the field and joined a commercial bank to become a senior banker. So that was my first job behind the desk. But again, trying to structure financing structures for the development of mining companies and mining projects.

These are capital intensive projects. So we have to understand where is the capital coming from. And I also learned, although I had never thought that I would be a banker ever, I learned from the inside, how important it is to understand the financing side, but also two ways, how important it is for the financiers to understand the sector, but also for the sector to understand where capital is potentially coming from.

And that I extended as a fund manager for an equity and investment fund, again, focusing on early stage companies. This was a commodity discovery fund. And that was really focused on those early stage companies that are still trying to find something in their exploration engagement and trying to develop that.

I basically wrapped all together all the experience, exploration, regions, investment, finance, to join a mining company again. So I worked for a

Canadian company, which had assets in Greece and Turkey and Brazil and Canada. But I was particularly involved to develop the projects, especially in Greece.

And that already comes a little bit closer. So this was in x, a little bit closer to the Critical Raw Material Act. OK, this was about gold, silver, copper, lead and zinc. So not, especially for gold, is not a critical raw, not considered a critical raw material. But at the same time, this Canadian company was the biggest private investor in Greece and was struggling to develop their projects for all kinds of reasons. National, political, social, environmental, European reasons.

And it was quite an interesting exercise to see if I could influence the development of those projects. And that's where I also learned and to give a little bit of introduction to the CRM Act, where I learned, again, how also the interplay of European legislation and national legislation sometimes help, but also sometimes contradict almost each other. And clearly that the development at the end is down to the national legal framework, even though maybe some European frameworks or European laws are in place.

If the host country is not fully engaged on the European legal side, then there is not so much leverage that you have to influence that project. So all that in a nutshell, basically, I wrapped up again and started on my own account to work as an advisor. So it can be technical, financial, strategic.

And at the moment, I have several jobs for advisory for mining companies, financial advisory. But I also I'm working in Saudi Arabia, where they are trying to develop quite significantly the sector. And so looking at what companies can do, what the government can do to basically promote that ecosystem.

But I also still have exploration activities in Southeastern Europe. And I'm on the board of several companies, including some critical raw material projects. And with that, and maybe also because I work on my own account, I am regularly solicited by the European Commission as an expert to either just to share my thoughts or to evaluate something that the Commission services created or to evaluate something that the sector created in reply to request for proposals.

And that also is very nice, because it helps to understand where the sector is moving and also how mature is the sector, how mature is Europe to allow for the development of this sector. And that is where the arrival of the Critical Role Material Act is an incredible achievement. But it is not the act itself is not yet the key to success, we still have to have a lot of work.

And we cannot claim that the job is done, because the Critical Role Material Act is has arrived. So that is maybe a long winded introduction, but it gives a bit of color and flavor, maybe to some things that you want to know more about Gauthier.

[Speaker 2]

Yes, so it was really interesting. And you have seen a lot of, you had a lot of experience in a lot of sectors that I would say take all the issue of critical raw materials. That's we will talk during this interview. It was very interesting. So you already talked like about the EU legislation and also the European legislation like the issue that can be linked between those two, right? But I am also interested to know like, in your opinion, what are the primary obstacles encountered in the implementing of the CRM Act strategy?

[Speaker 1]

What I see as the biggest obstacle is still, is in a very broad term still on the public acceptance.

[Speaker 2]

Okay.

[Speaker 1]

And, and you can say, whether you can question yourself, is that the public acceptance of the act itself? Or is that the public acceptance of mining in general? And I think it's the latter, because if the public is, yeah, okay, Europe or Brussels develops certain laws or the framework, certain directives, we're quite used to that as a European citizen. Maybe for some, we do not even know they exist for others we know. At the end. Yeah, we just take it for granted.

That is the way how Europe behaves. But what we are struggling with is finding the mental social support for the mining industry. Clearly, we are a very densely populated continent.

In most parts of Europe, we have missed two, three generations of activity. So the generation of today, and the generation of our parents are not familiar to having mining as part of their almost national activity, apart from some areas in Europe. So that is, yeah, it is difficult to get them back on the agenda.

And I think by just and that's maybe where now the bottleneck is, or the stumbling block is that, okay, the CRM Act is there. And now we want to execute and we're very keen to execute in it, but we cannot just force it on the public. The public will not accept.

We have seen that with whether that is general and the general political environment in different countries in Europe. If you just almost start to command what is going to happen, then the public will not accept. So we have to find quite a smooth way in sharing that with the public.

Yeah, and that takes time. And it takes a very smart strategy almost in trying to find how we share this ethically, so that you really get the buy-in of the population.

[Speaker 2]

That's really interesting, this perspective about, I would say, this kind of social issue. And also people's awareness about the CRM Act and also the mining activities. And from your strategic adversary perspective, how closely do you believe that the actual outcome of the CRM Act aligns with its strategic intentions?

[Speaker 1]

That's a very good question, Gauthier. So my short answer would be maybe not. Maybe the CRM Act is so challenging, and the objectives are so challenging, and especially the timeline to achieve those objectives are certainly challenging, that maybe it will not deliver on its objectives.

But at the same time, I would say, it must work. I don't have the solution yet, but the fact that the CRM Act is now in place, and it is indeed, finally, it's almost a catalyst or a facilitator for the Europe, or basically the European countries, to find a fit with our need for critical raw materials, that in some way or the other, we have to make it work. Even though we know that also looking outside of Europe, that from a European perspective, we are late to the party, there is competition, what I basically call is the mineral diplomacy that is very important, because other countries are doing exactly the same thing.

And they say they like each other, but at the same time, they are in competition with each other. And Europe is a bit of a victim of its own cultural fragmentation. We have to get 25 plus noses or visions aligned before we can act.

Okay, so now we have the Critical Raw Materials Act, I hope we can deliver. And that maybe is my response to your question is a bit dual. But you see that one side, I'm almost worried to say like, okay, I don't know if this is going to happen.

But at the same time, I think, okay, this is almost the CRM Act is almost the best type of legislation, the best type of framework, or directive that you can imagine. So it is a crucial step forward. But as I said before, we're certainly not there yet.

And that's my concern. And practicality and attainability are important. And that is where I see that from a timeline perspective, for instance, some of the objectives are to be delivered or to be satisfied in 2030.

2030 is six years from now, it's virtually tomorrow, if you want to develop a sector. And also understanding that if you want to find new deposits or develop projects, the average project development worldwide, all commodities confined, I think at the moment is 17 years from discovery to production. So that means that if we want to produce something in 2030, we should have had something done 10 years ago.

And we have not. And we know. So we're almost a little bit embarrassed that we're trying to catch up.

And at the same time, yeah, trying to force ourselves in these objectives. And it is something that, and that's maybe another aspect, more of a social aspect, that is where I see that the opinions and that knowledge is not well shared between politicians and the industrial sector, and also the public. But in this case, now you see mining companies saying they are very well aware of what can be achieved.

And at the same time, you see politicians that say, yeah, but we now have the act. So it's going to work, it's going to happen. And that needs a bit of more than a little bit of fine tuning.

[Speaker 2]

It's really interesting. And let's say in an ideal world to make the CRM Act more efficient, right? What would you add? Or what would you detail more in the act to be able to make it more efficient? Because right now, as you have said, it's a lot of different objectives in the whole value chain of the critical raw materials, and maybe a lot of different things.

Would you add something specifically?

[Speaker 1]

No, not really. I think that on that basis, the CRM Act is what it is. But of course, we understand that this has been cooking out of various national interests and basically have emerged somewhere in Brussels.

And now it has to basically trickle back down to the countries. And some countries may recognize very quickly how it satisfies their interest. So they can basically hit the ground running, take the CRM Act, adopt it, integrate it in their legal framework, and carry on.

But I'm sure out of our 25 plus countries, maybe half is still trying to figure out what this act is really meaning and where and how and all but also why they should find a fit with their legislative framework.

[Speaker 2]

It's really interesting. And now let's say if we switch more and focus on the social aspect, considering about the objective of the act, could you maybe discuss about what positive impact in terms of social aspects the act will be able to, let's say, develop? What will be the positive social...Yeah, what will be the possible as good social outcome linked with the act?

[Speaker 1]

Well, if you look at if you are familiar with the sector, and also those who have developed the Critical Role Material Act are familiar enough with the sector to understand that there are indeed significant social, positive social impacts expected. And whether that is employment, or whether that is just our ability to continue to develop our high value economies, apart from where the Critical Role Material Act stands for diversification of our sourcing of material, less import dependency. So hopefully there is also maybe a price impact, but that's the long term.

Maybe when I now say price, I also think that's maybe a bit dual, but okay. And maybe also we are better in control over if we have domestic production, or at least we have production outside of Europe, but in a more transparent framework for us Europeans, that at least we feel that that production is more sustainable, or more environmentally and socially satisfying, and at least more ethical, or more transparent. So that's all a benefit.

But at the moment, the average European is not tuned in on that. They still are. So we almost have two camps.

So ones that are still very worried, and we have to understand why are they worried? Why are they scared? Why are they?

And then some of them, they still believe that mining is bad, that it will create more environmental pollution, that it will create more social strain. Okay, you are Belgian, so you understand that if we were all going back 30, 40 years and

trying to project how the coal mining sector was all around Europe, but how the coal mining sector was at the lower end of our social and socioeconomic systems, how it was tough, underpaid, dirty, dangerous. And if people are already thinking like, oh, but why should we have mining on the general definition?

Why should we have mining back if we have just been abandoning all that for various good reasons? And then you first have to make them understand that mining in the context of today is different, that mining for certain commodities is not about mining for coal. And again, how important it is that primary production is vital.

Because that is the other thing that we have not mentioned. The Critical Role Material Act also includes the circularity and the recycling. But for the general public, it is very difficult to understand that if you do not have primary production, you will also never have recycling.

So they can not say, oh, but recycling will solve our problems. No, if I do not have an existing value chain that is already mature, then recycling in some way does not exist, even if you want it. And for some of the developing value chains, we cannot say, oh, let's start to recycle lithium batteries, simply because there are not enough lithium batteries to recycle.

So the lithium should come from somewhere else. And it's all those steps, and there are maybe too many of these questions. It's a chain reaction of questions that the general European public does not get solved or does not get answered.

So they stay worried, because there is nobody helping them to relax their mind. And we see several influences through the European Commission, through the industry, with all kinds of public outreach and public awareness campaigns. But very much, those awareness campaigns are still maybe a little bit introverted, because I do not know how much they reach the general public.

And maybe that's where we have to do some work.

[Speaker 2]

That's really insightful. And maybe also, do you perceive other critical gaps in terms of the CRM Act approach towards social responsibility within the value chain? And also, what would you recommend, I would say, to solve those gaps?

[Speaker 1]

Well, there is a bit of a conditional dependence. So one of the CRM Act pillars is financing. And it basically just says, so now with the CRM Act, it will facilitate



the access to finance, and it will allow the combination with debt and equity.

And in some ways, it's all kind of blah, blah, because nobody from the financiers is changing their approach. So it is nice to see it on paper, but it is not going to happen. And it leads to another set of frustration, because some people say, yeah, but hey, we now have the Act, but the financiers are not coming.

And then the financiers will say, yeah, but this is our business, what we're doing for decades. And we are not going to change our position. We are certainly, and that's maybe where the concern is, we're not going to assume another type of risk in the financing of these projects.

If the projects are mature, or if the projects are de-risked enough, then we are there. So that is the frustration of the financiers. But it leads maybe to another level of frustration also with the European public, where they say, yeah, look, and it's almost a bit of a revival of the banking crisis.

And so now you see, so everything is there. And those bandits, those crooks banks are still not ready to help us. And so, and to me, well, maybe also because I've been on both sides, that's an unfair position.

But it just shows that we, in the same way as we're trying to almost to push the CRM Act on the general public, we're also trying to push it into the financial institutions. And it almost, and we have to be careful because, yeah, if it doesn't bend, it will break. And then we're, yeah, then maybe the impact of the CRM Act will be lost.

So we have to be careful that we're not over-pushing the existence of the Act. Now we really have to work from the other side so that it is better received rather than being pushed into various sectors.

[Speaker 2]

Okay, I understand. So the financing part is really crucial also to make the CRM Act work. And does it open also the door to other types of financing, maybe? Like with European institutions, for example?

[Speaker 1]

Well, yes. So it has helped to influence, again, maybe the risk appetite for some European financial institutions. So parties like EIB, the European Investment Bank, or EBRD, the European Bank for Reconstruction and Development, have basically reconsidered their mandate because they realize that there are, especially in the earlier part of project development, there are gaps in almost

financing appetite. There are gaps where very little institutions are prepared to put money and that's all from a risk perspective. And so they realized that their money could have some sort of catalyst role to unlock the development of their project. So that's what they're doing. So that is fair. At the same time, you see some countries redeveloping, making money available.

So the German government has basically left a €1 billion budget with KfW, that is the German development bank. The French government has left a €500 million budget to Infravia, an equity fund, and Infravia will raise an additional billion and a half. So ideally they have €2 billion.

There is a third, the Demeter Fund, that again is a bit French centered, but we still have to understand where they will play. This is all in creation. This landscape is moving.

But at the same time, I see here from my home in the Netherlands, again a country without mining, but a very developed economy, almost totally import dependent, but at the same time a trading economy, that we also think like, here in the Netherlands we have to do something. We don't have mines, we don't have production, but somewhere in that value chain, maybe we also have to play a role. And that is maybe just because our industry needs it, or because again we are traders, or because we have the port of Rotterdam.

So it is not directly related to the mining and extraction, but some other place further down in the value chain. And at least I think that is healthy, that we have that consideration like, okay, we have to do something with this.

[Speaker 2]

It's a really interesting perspective. And now switching more maybe on the environmental aspect, like considering this objective and provision of this act, could you maybe tell me if you see any positive environmental impact related to the CRM Act?

[Speaker 1]

Well, look, Europe is the leading continent if it comes to, let's say, sustainability performance. If you develop a mine, or if you produce from a mine, it is, on one side you can say it is sad, but true, you have to accept that there is some environmental strain. That there is, okay, you dig a hole in the ground, let's say, and that hole is just there.

Or you have emissions in air, or water, or dust, and yeah, it may have noise, or it may have visual impact, it is there. At the same time, then we strive to minimize

those impacts. And that is maybe the positive side of it, that we're trying so hard to make it, to reduce that impact, that maybe we are in a net neutral impact.

And that can also maybe help us to look at some of our historic activities in a better way. So, it is almost, yeah, the sector is trying a new suit. It's almost, yeah, redressing that sector according to very strict environmental measures.

So, again, if I would say what is the real positive environmental impact, then for me it is important to remind people why the CRM Act exists. And the CRM Act exists to address our need for critical raw materials in support of our energy transition. So, if at the end of the day, the net effect is not positive to allow for that energy transition, then we should not be mining.

So, it is not, yes, okay, we will have maybe a more modern mining operation, but if at the end of the day, I don't know, our energy intensity or maybe the combined CO2 emissions are worse than what we're trying to achieve, then, yeah, we may as well just stop. Then we should not be just mining or developing critical raw materials just for the sake of developing critical raw materials. So, the end game is energy transition that has, or maybe twin transition, energy and digital transition that has allowed for the arrival of the Critical Raw Materials Act.

If for some way it does not allow us to turn into that transition, then we should also take a step back and say, oh, not necessary anymore.

[Speaker 2]

Okay, it's really interesting. And we also already talked during, I would say, this meeting about recycling and sustainability. And so, how do you think the CRM acts take into consideration other steps of circularity, like, for example, reducing, reusing, repairing, and even like recyclability in general?

[Speaker 1]

Well, maybe at the start, and that's another part for the public to understand that in some way, any success can only be achieved if we collectively consume less. If we consume less minerals, or if we consume less material, or if we consume less energy. And that is not happening at the moment.

For some way, in some reason, our commercial activity and our commercial understanding is still leading. Yes, on one side, we're trying to reduce our price or our cost dependency on critical raw materials. But at the same time, we are building very exclusive, expensive electric vehicles.

And so, as I always say, I do not blame Tesla that they're building the type of car that they're building, because apparently there is a market for it. And their objective is to make money. And this is what is happening.

But I don't think that, let's say, in the ideology that a 2,000 kilo car, or basically a transport device to transport a maximum of four persons from A to B, is really the solution. But maybe it is an intermediate step, or maybe I will never be or we collectively are never able to influence that understanding. So that is more already on the side of our need for minerals and our need for critical raw materials.

Ideally, but that is where circularity can help. Because if the reuse, if the end use does not exist, if in some way we're able to go and maybe we're losing some material, then we have to mine it or add into that chain. But if our reuse is better, then of course, that helps a lot.

At the moment, recycling is focused on, in some way, recycling the past. But at the same time, ideal circularity is about recycling the future. And that is where we have to design for.

But at the same time, we have to find ways of recycling the material that we already have around us, and that are available to recycle. So for instance, we need a lot of copper, because copper is the electric lifeline of everything. But most of the copper is already in use as power cables.

So we can say, yeah, but there's a lot of copper around, so we just have to better recycle it. Yeah, well, we're not going to strip the power lines of today, because we want to recycle more. And that is the contradiction. But having said that, I think that we can still improve our recycling infrastructure, our recycling capacity, even though in large parts of Europe, we are recycling a lot. But we also have to accept that it is cost intensive. It is not cost effective to have several different types of garbage collection driving through a town several times a week. It is very inefficient. But at the same time, it makes us feel better, because we feel that a separate collection is a better basis for recycling. So it still requires a few solutions, I think. And I just hope that people are focused on that.

[Speaker 2]

It's really interesting and also very challenging, this subject. And maybe also, do you see like, what are the main environmental challenges or gap are related with the CRM Act current framework?

[Speaker 1]

Yeah, so challenges are, at one side, that we should not forget about the main objective. If it does not satisfy the energy transition, either by reducing energy use in capacity, or by allowing for clean energy to replace old energy, let's say, that's good. But at the same time, environmental challenges are still that maybe we should keep our mind open for the right developments.

And we should not rush our solutions, because maybe we are, again, then creating a new problem. We should also understand what is the cost for our environmental acceptance, because it comes at a cost. These are, because that's the other thing, modern technologies, modern industries are, by definition, energy intensive industries.

The industries from the past were working on man labor. So everywhere where we have been able to substitute man labor for something else, it just takes more energy. And that is exactly the development of most of the industry sectors around the world.

But that means that not only do we have to look for alternative energy, but we also have to accept that what we're trying to achieve needs more energy at the basis. So that is a constraint. And it will trigger, as other environmental constraints, while you see one debate, and that's maybe a bit of a sidestep, but you have heard from, or maybe have seen, to what extent we should consider any deep sea mining, so go offshore.

Well, that opens up a whole new debate. And with clearly two camps, where one would say, no, you cannot do that. So that is an untouchable, untouched ecosystem.

Don't start doing that. But others would say, yeah, but the impact on land is much more than the impact on the water. It's a difficult debate.

I will not take a position there. But at the same time, I would say, why not just look at both cases and understand what the technical abilities are to mine, but also what are the technical boundaries to, let's say, minimize environmental impacts. So that is, let's say, an indirect side of the environmental impact.

And still, as I said before, mining does bring some adverse impacts. And that is where, yeah, where basically local communities are concerned. And for instance, I'm on the board of a project in a country, where they are, as a whole country, they are not prepared to restart the sector.

And basically, because they said, yeah, but Europe has asked us to close down this sector entirely for 20 years. And now for the last 10 years, we stopped all activity. And now you're asking us to restart again.

And you have been, 20 years ago, you have been convincing us why we should be stopping and on what, again, what adverse environmental consideration, it was the right thing to stop. And indeed, you were right. But we are not convinced that if we're going to restart, that those same environmental considerations are not valid anymore. So they are totally confused. And I understand. So they have gone through the same learning exercise, but in two different directions. And that is, yeah, they're simply confused.

[Speaker 2]

I understand. It's also very country specific, right? Like a developed economy, like, for example, Netherlands, or I would say even more, Belgium is totally different from a country like Romania, maybe Bulgaria, or Serbia. And the fact that the CRM Act is really European Union, it can also pose a lot of difficulties, right?

[Speaker 1]

Yeah, because you're absolutely right, Gauthier, because let's say for Europe as a whole, okay, it's easy to say domestic production versus production outside of Europe. But then for that domestic production, if you look inside of Europe, we just know that there will be some countries that will take that burden, if you want to use a slightly more negative connotation, compared to the countries who do not, who simply do not have it or, but are still dependent on the raw material. So I must say, I have not seen that type of political behavior, where let's say the countries that simply do not have mining would be maybe politically pushing more for this development, so that they can basically rely on production somewhere else.

In the past, countries like the Netherlands or Belgium were very strong in, that was the other problem, more stronger in setting environmental standards, but setting the environmental standards so ultimately strict that maybe for a country like Belgium or Netherlands, it would work because our level of productions are simply not so high, because we have less exposure. But it was an unworkable environmental constraint for some other countries. You are right, it will work differently for different countries.

And you mentioned, yes, Eastern Europe will, well, they have to revamp, and they still have to come, maybe it's a bit of a wake up out of the, let's say, traditional, more social related mining from the 80s and 90s. And now trying to understand that, but okay, how does modern mining look like? If we go around

the Europe, other countries like Sweden, Finland, they have the right, maybe they strike the right balance.

Maybe even some parts of Spain, Portugal also strike the right balance. But at the same time, as there is, as we are not equal in Europe, even though we now have a European directive, you already see that even from the perspective of the Critical Raw Material Act, that developed countries, especially the bigger ones, like France, like Germany, are developing their own strategy, partly on the back of the CRM Act, but also partly already taking a different direction. For them, it's not going fast enough, or it is not fit enough to their industry or to their needs.

And yeah, we have to understand that the CRM Act is a compromise, a compromise over 25 countries. Yeah. And then maybe the bigger countries like France, like Germany would say, okay, that's all fine. But we develop differently. We honor the CRM Act, but we are taking different steps. And we go rogue on the CRM Act. Not a good example, if you still have other countries that are trying to adopt the CRM Act, if they already see that some countries are already going rogue in a way.

[Speaker 2]

It's a really interesting perspective, and maybe more related to the, I would say, strategic projects that are really crucial points in the CRM Act. Yeah. What would you say would be the impact related to the, I would say, shorter period time needed to be able to launch project? And also, what would be the impact related with the certification scheme?

[Speaker 1]

Well, in some way, look, a strategic, so the election of a strategic project that is good, I hope it adds transparency and that we all understand and hopefully also we all agree why certain projects are important from a strategic perspective. At the same time, and that was also when I looked at, let's say, the idea of strategic projects election, I wanted to say, okay, having a project elected as a strategic project or designated as a strategic project is good as a start, but then what's next? If you just give it a label, then nothing will happen.

So, you really have to understand what does this project need to develop? So, designation as strategic project is one thing, but understanding, does this project need, indeed, or help on the legislative framework? Does it need help on the financing? Does it need help on the technical de-risking? Does it need

help on the technical feasibility? Does it need help for offtake to the downstream industries?

There must be something, otherwise the project would almost develop on its own, but we have to understand that the designation as strategic project is hopefully a catalyst for its development and you are right, maybe some of that help could be the permitting or the legislation, but at the same time, sometimes permitting is following certain steps and historically these steps have developed for a reason and what I do not want is to shortcut our permitting procedures.

We can maybe fast track, but we cannot shortcut and the two actions are very close, but we have to find ways maybe to accelerate making sure that the national administrations are up to date or up to scratch to deliver on the permitting process and that we're not losing time because of a sluggish process, but to basically fast, basically to cut corners and to, in that way, trying to accelerate permitting is not a very wise thing to do, unless there is just unnecessary bureaucratic layers where we would say, okay, let's streamline this, then it can also help to improve the administration as a whole.

[Speaker 2]

I understand. It's really interesting and we talked a lot about Europe right now, but what will be the impact of such an important legislation on other, I would say, third countries, in your opinion?

[Speaker 1]

Yeah, and also I have to be mindful of time, so I apologize Gauthier, I have a hard stop at exactly at the hour, but well, you see, if you look outside of Europe, you see clearly two populations of countries or continents. The developed countries, they, so as I said before, there is competition for critical raw materials, so everybody is trying to develop in their own ways and the US or Canada or Australia or Japan or Korea or Saudi Arabia, they all are behaving in a slightly different way, where the Americans are just throwing money at it and basically say, here, it's a very big carrot, here is the money as long as you develop for our benefit.

Europe is still not so much from the carrots, but more from the stick, basically saying, well, we like your projects, but you have to follow our rules and our rules are strict and then maybe some developers would say, okay, but where's the money? And that's what I see a lot now in the African context, where partnerships being signed between Europe, several African countries, Zambia,



DRC, Namibia, Tanzania, but also in Latin America and Kazakhstan, but those countries, they also want to develop their value chain and they are not happy, basically, to simply deliver resources to Europe. In some way, that's a very, yeah, and I apologize to say it, but from my perspective, it's a very colonial attitude to basically say, hey, let's take Africa and let's see where are the resources that can help the European industries.

So, it really must be, if it is not a win-win development, then, yeah, we should not be pushing for that and we should maybe almost want to say, okay, the African country of sourcing comes first in the development and then hopefully, maybe further down the value chain, yeah, there is the benefit for the European industries, but by simply just saying, like, okay, let's take the cobalt or the tin or the copper from Africa and we'll sort it out in Europe, yeah, that's clearly not the type of attitude that I would like to see, but I feel that we are, as Europe, that we are enough aware of that.

[Speaker 2]

Perfect, that's really insightful and I'm looking at the time, so is there anything else you would like to add that we haven't covered or is there anything else I should cover, in your opinion, that we haven't seen right now?

[Speaker 1]

No, not really, Gauthier, yeah, maybe the only thing what I realize is how we are all together with almost the CRM act in hand, we are all still in a discovery mode and we're trying to discover and understand how this is going to work. So, that creates a very dynamic environment and at the same time, we and also you for your research and we're trying to describe things the way they are, but we also have to accept that we are in a very fluid environment. So, it is not a static observation of what works and what does not, everybody at the same time is trying to understand the position towards their neighbor, their role under the CRM act and what's going to happen tomorrow and that is, I like it as a very interesting, it's a challenging environment, it's an intellectual challenge, but we have to understand that it's still dynamic, it's still a very fluid environment.

[Speaker 2]

Perfect, thank you very much and also, thank you very much for this interview, it's a lot of insight, I will really listen to it and I will look at it with more details, but thank you very much for your precious time and a lot of interesting insight. Maybe, do you have someone in mind that I could connect with to be able to have more insights to advance on my thesis, if you have?

[Speaker 1]

Yeah, I may have a few, but it depends with who you're looking for. As I mentioned in my introduction, I've been able to cover a lot of aspects across the sector. In my network, I have a quite a rich network, but I have experts that are more expert on technical side or financial side or maybe policymaking or so, it depends a bit what you like and also otherwise, you just drop me a message if you feel that some aspects are not or you would like to see covered more or maybe from a more national perspective or then I'm more than happy to propose somebody.

[Speaker 2]

Perfect, so if I have any question, I can come back to you and maybe ask it to you.

[Speaker 1]

Absolutely, no problem.

[Speaker 2]

Perfect, thank you very much for your time and I will let you go before your meeting at three, but thank you very much, it was really insightful and thank you very much for your time and your help and I will send you the work once it's done if you want to read it.

[Speaker 1]

Okay, yeah, I would be delighted, but also Gauthier, well more than happy, it was a very pleasant conversation, so happy to contribute. I wish you a lot of good luck, but especially a lot of wisdom and perseverance in your research to bring this together and yeah, looking forward to see what you get out of it.

[Speaker 2]

Thank you very much and have a nice day. Dank u.

[Speaker 1]

Yes, you too. Bye-bye.

## Interview with P4

### Speaker 1 – P4

## **Speaker 2- Gauthier**

[Speaker 2]

Yes, exactly. She recommended you. So I will explain quickly what's the purpose of the interview and then I will ask you to, let's say, present yourself.

So, in fact, I am doing my master thesis on the European strategy on critical raw material, more specifically as defined as in the CRM Act. And I'm focused more on the environmental and also social aspect of it. So, also, I want to assure you that during this interview, everything will be anonymous and also confidential, even if it's maybe not necessary. I prefer to tell it to you. And also, can I maybe record the interview like that? I can really focus on the conversation and listen it afterwards to take notes.

[Speaker 1]

Yeah, of course. I mean, the confidentiality, I guess it's just, well, the interview is for you to look at and for you, maybe your supervisor, but in your thesis, there will be no names, no mentions of names.

[Speaker 2]

No, like that, I can assure you and it's maybe more convenient for everyone.

[Speaker 1]

So, yeah, because then you can speak more freely if, you know, you won't cite in your thesis what I say.

[Speaker 2]

Yes, yes, exactly. And so maybe, can I ask you to present yourself and describe me a little bit your role, your actual role and how you contributed to the CRM Act?

[Speaker 1]

Yeah, sure. So, my name is P4. I am x years old.

I currently work as political advisor in an EU institution for x, who is working for x division. In 2023, I was still working for x, who was x's predecessor. I started out in January as a trainee and then got taken on as assistant slash advisor around August.

My main responsibilities did actually revolve around the CRM Act. So, once we took it on in March, I was basically involved the whole way through until the final agreement and trilogues in November, I think it was, and then the final

approval in the Parliament in December. Yeah, so together with my colleague, I did worked on this legislation.

Yeah, so we, it started out with, once we got the rapporteurship, so x was a rapporteur in the CRMA, and once we got the rapporteurship, we started out with analyzing positions, formulating our own opinions, writing amendments, analyzing the other amendments, writing compromises, finding EPs position, trilogue negotiating. Yeah, and then up until the final agreement.

[Speaker 2]

Perfect. So maybe could you elaborate on the underlying assumption or perspective that may influence the CRM Act and also the impact that it can generate? Because you were, as you were telling me, like looking at the x part of the Act.

[Speaker 1]

Yeah, sure. So I actually, I thought about some questions already before, about a few points that I'm going to say, because the questions actually are quite broad, which is very interesting and gives a lot of, you know, a lot of things we can say. But for the underlying assumptions, so the first one is really that Europe is at the moment facing a shortcoming in supply and secure supply of critical raw materials.

That was really the consensus on why this Act was built, after also Commissioner President von der Leyen announced it. The second assumption was that we cannot be dependent on China alone when it comes to raw materials, so that we need to build a diverse portfolio. And I think the third one, and this is really the most exciting one, the most that's going to really shape the future, is we need to become a geopolitical player.

So this whole thinking of like a geopolitical union is also embedded in there. And in this sense, also as my former boss always said, you know, the CRM Act is not an end to itself, but it's just a starting point to achieve other goals. So we don't just do this piece of legislation because we want to have a few mines in Europe, but really do it because we have bigger ambitions of diversifying, of boosting our own capacities, and of really becoming a global player in the field of global partnerships and geopolitics. And this, in a sense, I think, sets the scope and the possibilities for the scope very wide for the future, I think. So yeah, that's the general consensus.

[Speaker 2]

And I guess to make the Act, you had to do a lot of compromise between the different stakeholders, I would say. And how did you incorporate their view and like, really, how did you manage to solve the potential conflict and also alignments in this specific Act?

[Speaker 1]

So in general, when you write compromises, it's very much about listening to what people want to say. So the first thing we, of course, always did is listen to the points that everyone had to bring. So NGOs, companies, member states, politicians within the parliament, that's always the first thing.

And then there was really a bit of an overlap between some stakeholders, but not all of them. So for member states, they really wanted a lot of ambition, but they also wanted ambition on CRM strategy, but not necessarily on the CRM Act. Because for them, what it means, European competences on CRM supply, one competence on the European level is one competence taken away from the member states.

So there's always a bit of reluctance to give over everything. On the other hand, there were also some member states. So for example, you probably noticed that the council managed a general approach in just three months under the Swedish presidency. So it's fair to say that the Swedish presidency was very ambitious on this Act. Because for them, of course, CRM supply is very important, as they also have natural resources.

For industry, they really wanted us to be very ambitious. So they wanted really quick permitting timelines. They really wanted all the support they can get, because the industry situation was very dire, or was and is still, as the thing still isn't enforced. But there was also a very distinct feeling of, you guys have to do more. So there was always the talk of electricity prices, alongside whatever we do here. So it's really part of a bigger picture for them. So this piece, it's one piece of the puzzle, but the rest has to also be done.

And then, interestingly enough, for NGOs, the first indication that I always had was that they were very careful around it, because CRM supply revolves around very sensitive subjects. So environmental legislation, it revolves around indigenous people's rights, and it revolves around social impacts, like this whole NIMBY syndrome. So it's understandable that they're really careful.

But then I really got the impression that they also, in the end, noticed that we needed this piece of legislation. So also, they work very constructively. And in the end, the way we resolved it is because my boss is part of x, which is

centrist, and can bring kind of everyone together, pulling them in, instead of just pulling to one side. I think that's what really made the difference, that my boss was able to pull both sides in from a centrist point of view, so industry and also NGOs. I think that helped a lot.

[Speaker 2]

And maybe rebounding on that. So you were telling me or so with the national competencies and the European, I would say, competencies. I know that the situation in the member states are really different. So for example, a country like, I don't know, Bulgaria or Serbia will be totally different from a country like Belgium, for instance. So yeah, how can you do a compromise thinking at that, because their situation is totally different. And so their national strategy will be also maybe different. And how can you manage all the stakeholders, in fact, successfully, I would say, yeah, collaborate and follow those rules, because at the end, the national competencies are really important.

[Speaker 1]

Yeah, they are. Quite luckily for us, it's something that was not our first concern, and that was not the first thing we had to deal with, because the way the council works is the presidency gets all the countries or at least the majority of countries to agree to something, and only then do they propose it to us. So large parts of the member states' concerns were dealt with by the council presidency already, which kind of takes that a bit of our shoulders.

So we only have to deal with one united front of member states and not 27 different ones telling us what they want. Nevertheless, there were, of course, yeah, member states that had different interests. So for example, larger member states, as France and Germany, they really wanted a lot of ambition, and they really wanted this to supplement their national programs.

So you also probably noticed all this triangular cooperation between Germany, France, and Italy on CRM that they did last year, and really they wanted to complement it with European action. On the other hand, smaller member states, like, I don't remember actually which one we spoke to, but my general feeling was that smaller member states were a bit more careful, because of course they don't have so many resources to dedicate them to CRM supply. So this was really balancing a bit, but luckily the council presidency dealt with most of it, so that was okay for us to deal with.

[Speaker 2]

Okay, perfect. Thank you. It's very interesting. And also, like, in drafting the CRM Act, where, like, the environmental and social priorities, I would say, weighted against more, like, the core objective of the Act, linked with securing the supply, and also, like, more economical objectives.

[Speaker 1]

So I thought, actually, I thought about this question before, because I find it quite difficult to find an answer, but I think what really helped is that, as I said before, you know, we are really, like, the x group, we thought always of both perspectives. So what, if we write it a certain way, what does that mean for affected communities and the environment? And if you write this way, what also does it mean for our ambitions and for the companies that we want to do these ambitions?

[Speaker 2]

Okay.

[Speaker 1]

And I think really approaching this from both sides, I think that really helped us. On the other hand, I think also this balancing act is between social and environmental objectives and ambitions. It's so much, like, in the core of EU thinking, that you just always have to do it. It kind of comes a bit naturally. It's weird to say it, but I think it does for us. And because for us also, and for us too, it was very important to achieve a good majority in the parliament for the trilogue. So we always really looked from both perspectives. And then of course, we also always consulted with stakeholders. So we consulted with NGOs and we consulted with industry again to see what it means for them. Yeah, because in the end, it doesn't help anyone if we sit here in the EU institution and make some law that nobody has ever seen before and that nobody knows what it means. So you really have to engage with them and consider their viewpoints. I think that's the most important part that we did.

[Speaker 2]

So you will say that from your perspective, like, the CRM Act, like really align well with its strategic intention and also like that you successfully, let's say, did a great compromise between all the different stakeholders.

[Speaker 1]

I think it does. Yes. From my personal view, I think it does.

But one, it's a bit difficult also to say, but at its core, the CRMA is not a piece of sustainability legislation. It's a piece of industry legislation that sets out industry ambitions, what we want to achieve for our supply and not for our environment. And in that sense, there was always the feeling for some people that the environment was maybe in the back foot.

But from my perspective, even though it is an industry piece of legislation, we always consider the environment a priority as well. So this was also a bit of a balancing act between how different people perceive it. Because of course, some people are going to see it's an industry piece of legislation that touches upon environmental topics.

This should be environmental, which is sometimes a bit difficult. But I think in the end, we managed well. And I mean, trilogue outcome of 89% majority that speaks for itself, I think.

[Speaker 2]

Okay. Yes. I saw it yesterday also when you posted it, it was quite impressive, I would say. And so maybe like regarding the CRM Act, like could you identify like maybe areas where you would have loved to put maybe more details and or some more precise definitions? So for example, I also seen in other articles think that when you talk about value creation for partnership, maybe it was not enough defined. Like maybe, would you put like more details somewhere in the Act or more like defined terms?

[Speaker 1]

It's good that you mentioned actually the value creation. On that specific point, it's actually wanted that value creation is not so specific because once you make it specific, you also exclude a large part of value creation. And the way the annex, I think four, is it? Yeah. No. Annex six? I don't know. The way the partnerships are written is that they can always be assessed on an amount of different criteria. But the common ground is that they all create positive value in member states and the wording, the recitals and articles also makes it very clear that we aim for multiple steps on the value chain created.

But the ambiguity is because if you were to say, okay, this mine in, I don't know, Australia is going to be a strategic project. And if you were to make it a hard criterion that right next to it, there has to be a refinery that excludes a lot of projects, for example, already in Australia and Canada, because there they have more sophisticated local rules. So for our framework to be fit for purpose, we need some amount of flexibility.



[Speaker 2]

Okay. I understand it. And I've seen that also with, I think, the term public interest for some projects with some NGOs. But so, in your opinion, is the act is enough detailed and you don't need to define more because it's greater to have that variability, I would say, to be, to not be like restrict too much. Right.

[Speaker 1]

I think the important part is that we have, that we are serious about implementing it in the right way and actually following on our ambition. So there is, of course, more ambition than what's actually written in the law. And if we follow through on it and are consistent with our goals and the way, you know, we check on the commission and the member states, how they implemented and also on companies, then I think we did it well.

But two other things I wanted to mention on exactly, when you speak to NGOs, probably at least back then, there were a lot of the times like, so you were outsourcing the check of environmental rules to like those private schemes and we are not a fan and blah, blah, blah. And this is actually where I think we did very well specifying it at the EU institution and trial of negotiations because we have much clearer criteria now. So we have, of course, for example, that schemes, so certification schemes should be of multi-stakeholder governance. We have a definition for it. We have a definition of the steps of the value chain, what needs to be covered. We have even, I'm not sure if we still have the risk criteria.

But anyways, so, but this is something that we specified a lot. I think that was necessary, but I think we did in the end very well to ensure that we cover all the relevant things. While on the other hand, not scaring off every investor by saying you need to fulfill a thousand lines of code because that's also not approach because then in the end, you won't reach your goals. So you have to find a delicate balance between covering all the environmental pieces while still being an attractive place for investor. And one cannot come at the expense of the other. They have to go together.

[Speaker 2]

Yes, that's really an interesting perspective also with the financing part of it. And you need to attract some investors and reduce the risk linked to that. And now if we speak more in terms of implementation, so it has been accepted. So in your opinion, what would be like more of the challenge or opportunities

maybe related with the implementation of the CRM act and like what impact can you expect related to it?

[Speaker 1]

So on this, I have to preface, I'm not an implementation expert. I think this is a very different area from us. So making it as one area and then implementing it as the other, because in the end it's going to be commission and member states that implement it.

I think, as I said just a few minutes ago, that it's going to really come down to how well the checks and balances that are in their work and how seriously the commission and member states take their role. So for example, we outsource the environmental checks or strategic projects to schemes and certification schemes, but it's up to the commission to control and check regularly how well they're doing their job. So I think if we want to be serious about our environmental and social ambitions, the commission really has to do what's written in the law and follow up on actually looking at what environmental and social criteria we are fulfilling or not fulfilling.

Hum and then on the other hand, I think apart from environmental social aspects, it really comes down to how well member states are willing to cooperate. Because for example, the partnership provisions, there's not any mandatory partnerships that member states have to sign, but it's more of a goodwill exercise of European coordination. So I think if they show goodwill and if really we can see that the raw materials board is something beneficial, then it will work.

And the same goes for the monitoring and stress testing, which isn't all done by the commission. So it really depends on the engagement also of member states. Hum and I think the key challenge to look out for is whether this ambition that we've seen in the legislative process actually continues.

Because if it doesn't, then we might as well have not written it because then it's just a piece of law that has no action.

[Speaker 2]

Yes.

[Speaker 1]

But if actually member states in the commission follow up, as they have said, they will do in the negotiations, then yeah, I think we can be very successful.

[Speaker 2]

It's really interesting. And maybe more like in terms of a global perspective, like, how can, like, did you identify maybe any risk linked with maybe more political and maybe more geopolitical risk related to this specific legislation and how can you prevent it or what could be the impact related to it?

[Speaker 1]

Geopolitical risks.Hum

[Speaker 2]

Or political risk inside Europe.

[Speaker 1]

Yeah, I guess. I guess. I guess. No, I'm not sure. The only thing that comes to mind is like the case with China again. Because on the one hand, we were trying to react to the China risk.

But on the other hand, if the situation with China were to escalate anytime soon or were to be more tense, so as they did last year, a bunch of export controls, I think in the short term, can actually harm our ambitions to become more independent. Yeah, because, I mean, without raw materials, you can't build up the capacity to build raw materials. It's kind of ironic, but that's how it works.

Yeah. So I think if China, if we run to a crisis with China, that can be maybe not good for our ambition. But other than that, the usual, as with like EU internal crisis of member states don't play ball, then we will be useless.Yeah, I think.

[Speaker 2]

Nonono that's very good, I just wanted your perspective, maybe related to that. See if you knew some interesting fact. And the thing you mentioned with China is really insightful also. And maybe like in a very global term, before focusing more on the social and maybe more environmental, like maybe do you see any gaps in this legislation or like maybe global challenge related with that legislation?

[Speaker 1]

Hum, I think this comes back down to what I said earlier about the industry perspective, that this piece of legislation can't stand for itself. We have to do so much more. We have to lower our energy prices.

We have to strictly enforce environmental rules while not becoming too restrictive with all the standards and scaring away all the investors. And yeah, we really have to find, I think, an ever closer union. I like the words of ever

closer union in this context, because I would have wished for even more competences in the CRMA, especially on the partnerships.

Because this is, as I said before, it's basically for member states and the commission to fill, but there's no obligation to meet behind it, because under the treaties, partnerships are prerogative of council and commission, and the parliament isn't involved. So with this act, we couldn't set any concrete obligations, just like a forum for discussion. So I think that's really the biggest weak point, that we are so much dependent on commission and member states to fill it with partnerships.

[Speaker 2]

So I don't really know the process, how its work. So maybe more in terms of partnership and out of obligation. So in the CRMA act, it was not possible, in fact, to implement more like a better or more detailed framework related to partnership, because this will be more for the competences of as a commission and also as a member states.

[Speaker 1]

Yes. So as I said, the treaties, so the TEU and the TFEU, they set out who does what in the EU. And after that, it's the council's prerogative to decide what's the content of partnerships. And then the commission is also involved in some way. I don't remember exactly that. But basically, what we did in the CRMA, in articles, I think, 35, 36, we create a forum for discussion.

And we create a forum where each member state sends someone, and they come together, like, I think, once every three or six months, to discuss strategic partnerships. So they discuss European initiatives. And they also discuss national initiatives if they want to share them.

So we give them the room and the institutionalization of the possibility to discuss it. But there is no way to say you need to have 10 partnerships until 2030, because that's all for council to decide. So all we could do was force them to discuss once in a while, which if it is matched by ambition from the member states, it's not a problem. But of course, we are now dependent on whether they will actually follow through on it.

[Speaker 2]

Okay, I see. And so the partnership part was the only point in the legislation that faced that specific problem, right? Because it was more linked with the countries.

[Speaker 1]

There was a lot of problems along the way, of course.

[Speaker 2]

Yeah, I guess.

[Speaker 1]

But this is the only thing that I can remember, at least from my perspective, that we didn't wasn't able to solve, like at all. I think for the others, we found at least some way, but this is the only thing that remains.

[Speaker 2]

It's really interesting. And maybe if we switch more, maybe right now on the social and environmental perspective, like, what do you think the CRMA align or conflict with existing EU legislation in terms of maybe environmental and social? Because there are a lot, for example, of other legislation like related with waste, related with other environmental, I would say, specific rules. So how do you ensure that there is a good alignment and no conflict with it?

[Speaker 1]

Hum, so this has different levels. Let's start with waste. We don't touch the waste rules. All we do is use the waste rules that exist in a certain way for us so that we can measure the benchmark that we set based on waste and measure a bunch of other stuff. But other than that, we don't change the waste rules at all, but we use them. That's correct.

Then there's the EIA directive, environmental impact assessment directive, which is laid out a bit differently, but also the requirements, they are not changed. And then there's all the rest, which we just don't touch at all. So it's actually a very common misconception around this act that we set some environmental rules or that we change them or something, which in my opinion is not true at all.

We take the legislation and implement it in the way that they were meant to be implemented. So for waste, for example, we specify what waste streams there are. For flora and fauna, we use the, so for birds and habitats regulation, we use hum the status as protected and we say there should be additional measures.

Hum also for flora and fauna, we give the possibility to member states to give the status of overriding public interest. So we really connect the CRMA with all the other environmental legislation, but as the standards and all the thresholds

and stuff in the environmental legislation is completely untouched, there is not so much potential even for interference. It was, we had long discussions really about it and yeah, made sure that even the smallest problem of interfering was not the case, but in the end really we could just connect it and we don't change anything, so I think there is not really much potential for big conflict of competences between laws.

[Speaker 2]

Okay, so it's like in fact you had a big box and you had all the different legislation and you use some coordination between every legislation inside the CRM Act, if I understood correctly.

[Speaker 1]

Correct, and they all work, I mean the legislation also all work together without the CRM Act, and we just work together with them as well, it's like you added one more piece of the puzzle.

[Speaker 2]

And so, yes, so if there is some hum details I would say to improve in other legislation, it could also impact basically the CRM Act, because it's like coordination of what is already existing.

[Speaker 1]

Of course, of course, so if now the Commission were to decide that, I don't know, or if we all were to decide that all of a sudden the whole European area should be protected, then we couldn't place any more processing or recycling facilities anywhere, I think, because we, well not at all, it's not true that we couldn't place them at all, but what's a good example? Yeah, if it was all protected land, you would have to justify for everyone in Europe why you put the processing plant there. So, yes, of course, this piece of law is vulnerable to the pieces of law it works together with, but I mean that's the way you build a coherent system, because we don't take the CRM Act and rewrite our own environmental provisions, because we already have those, and if we want to change them, then we change them in that law and not in the CRM Act. But that, of course, leaves us vulnerable, but it's the only way to have coherence.

[Speaker 2]

Okay, it's really interesting. Right now, I'm understanding better how it works a little bit between the different legislations, because it's really hard for me to grasp it, so...

[Speaker 1]

Don't worry, when I began to read it, I didn't understand this as well. I mean, I spent one whole year just hunched over this act to read everything. So, yeah, it's quite a way to understand how all of this works.

[Speaker 2]

Yes, I mean, it's very well written and they're so comprehensive, I would say, but when you try to understand it in a second layer, I would say it starts to be more complex.

[Speaker 1]

You've chosen a difficult act to understand, because there are certain pieces of law that touch one singular topic. I don't know, packaging and packaging waste, for example. It's about packaging and packaging waste, that's it.

CRM Act is about strategic projects, about extractions, about processing, recycling, it's about partnerships, it's about financing, it's about public support, it's about so many things that you really have to see where it connects, which is very difficult. So kudos to you for choosing this topic.

[Speaker 2]

Hahah thank you. And maybe in your perspective, what could be the critical gap you can perceive in CRM Act, more related towards social responsibility?

[Speaker 1]

The critical juncture is certainly how well the schemes are enforced. So how well the commission does their job of supervising the certification schemes. Because the way it works is the commission designates to certain companies or stakeholder groups, when they apply to be recognized as a sustainability certification scheme, you guys, you can now go certify project sites that they are ready to be a strategic project.

And then basically those companies, stakeholder groups, whatever, go to the project site and try to certify whether it's a strategic project or not. So really, what it comes down to is that the commission very well shakes and enforces the regulation that we set for the scheme providers, so they in turn have to enforce it on the project promoters. Hum, I think this is what it comes down to, this is kind of a make or break situation, because how it was designed is that the commission has a lot of responsibility and they really need to live up to it.

Because yeah, those environmental and social things, if you want to outsource them, okay, I can live with that. But then you also have to be responsible so that they are controlled correctly. And I think this is what they have to do now.

That's for me the biggest critical point.

[Speaker 2]

I understand. And maybe because you talked about like a strategic project and also a certification scheme. Hum so I was wondering if maybe at some point you would have also improved maybe a little bit more about those two aspects, because, for example, just talking like that, if you reduce the time, I would say, to launch a project, are you not afraid, for example, that some part of, not certification, but some step will be cut and it will, after that, impact other different, I don't know, social or environmental aspects. So is there something you would have improved in this specific area? So strategic project and schemes?

[Speaker 1]

No, but it's a very good question because I can now make it. I think I can make a very interesting point. I love making this point.

Let's talk about projects in Europe, projects within the European Union, because projects in third countries, they are a bit more complicated. We just focus on projects within the EU. Two things.

So first of all, if a project is within the EU, also, of course, member states have to check how well they fulfill environmental obligations. So it's not only up to the scheme. And for third countries, it's scheme plus local government, of course.

So the government is not out of it either. The way the commission designed the CRMA in the first place was you submit the application. If you want to open a mine, it's a maximum of 24 months.

And if there's no response, you can open the mine after 20 – not the mine, but the processing plant, actually. It didn't go for mine. But processing plant – or did it go for mine?

It does. Yeah, they do. So if you want to open a mine, 24 months and there's no answer, then the member states in breach of the regulation.

If you have processing plants, the member state only has 12 months. And if they don't answer, that means they give you a yes. So that's quite very ambitious.



And in that sense, I think you can actually make the case that this then does come at maybe some environmental risk, but only if the member state doesn't do their job correctly. Because if the agencies are correctly staffed, if they have the correct knowledge, if they do their work as they are supposed to, there is enough time in there to assess every impact. 100% there is.

But of course, we are in the EU, so we have to plan for that agencies are not always doing things as well as they should. So the system we have found now is that once you have an application, you submit it to the member state, and the member state gives you a date for when they need the environmental assessment. And they give you that date, it's in, I don't know, three months.

And I'm like, I cannot submit it in three months, I have to submit it in 12 months. Basically, the clock runs for three months. But every day that I take longer than the date they gave me, the clock stops, so that there's sufficient time to research all the impacts I need.

And then once I hand it in, the clock begins again for them to assess it. And then they have a second opportunity to ask for more information. And if I need to provide some more that I cannot get in a certain time frame, it stops again.

So there's two windows in the permit granting process that actually allow for a collection of additional information. And what this does is, one, it gives us predictability for the project promoter, because they know once I've given in the papers, it's the responsibility of the member state and the clock is running. On the other hand, we know that we will not miss any environmental impact because if the member state says, guys, look into this, you have to look into it.

And there will not be a breach of the regulation because you look into environmental impacts, which is also not the goal. So the way we found it is, yes, fast permitting, but not at the expense of the environment.

[Speaker 2]

Okay, I understand it. So on the paper, I would say it should work, but it also depends more in terms of implementation, or the member states will also take on it, right?

[Speaker 1]

Yeah, of course it does. I mean, that's the beauty of EU law, that you do something and then you depend on member states to implement it correctly. Yeah, of course it does.

But I really hope and I think we've written it stringent enough that they will be forced to implement it in the way it was meant to be implemented.

[Speaker 2]

Okay, great. Thank you very much for it. That's very great insight and detail of how it's worked. It will help me. And maybe if we are talking right now more in terms of environmental challenges, can you maybe think of some gaps that can exist and also maybe some impact that can result from it?

[Speaker 1]

Wait, I thought about this before, I think.

[Speaker 2]

Yeah, it was in the social and environmental focus, I don't know.

[Speaker 1]

Oh, whatever. So I think my answer is kind of the same as before. I think we've done such a thorough work that there is no big gap anymore.

So there's nothing social and environmental, there's no criteria that we have overseen, because it's all implemented in some way. And if you like, you can ask about specific criteria and I can say how we've implemented them. The two that you've probably already heard about is the FPIC.

So it wasn't a part of the negotiating mandate. It didn't make it to the final text. What did make it to the final text was a very detailed description of consultation.

There's, I don't remember, it's the wording taken from FPIC. So basically, we say FPIC without saying FPIC. That's kind of what we aim to do in describing the measures that have to be taken to comply with the principle, but not describing the principle as such.

And then the other hand is, of course, the protected area measures. So before there was no special status for protected areas, what we have done now, at least I think we still have in the final act, at least we have it in the parliament position, is that within protected areas under the birds inhabitation directive, you can only open processing and recycling plants if there is a good justification for why you have to open them there. And the reason is that we, of course, don't want someone to go to a protected area and build that processing plant just because it's cheapest.

So then we really think they should move one kilometer to go where it's not protected and build it there. But the reason why you still have to allow it is that they can be built in there. Imagine there is a big mineral deposit, and mineral deposits, you can only extract them where they are.

And if they are in a protected area, you have to do it there. So you extract the mineral deposit, but then you have to have some part of refining sometimes, because otherwise they cannot be transported, because it's such large chunks of minerals and rocks. And so if you were to completely prohibit processing and recycling plants in the protected areas, that would make inherently mineral extraction also unviable in pretty much 50% of the cases that we have here in Europe.

I don't know the exact number of minerals that are in protected areas, but something like that. Yeah, we really found a balance. I think those two are the biggest ones that were probably a gap in the commission proposal.

But I think, from my perspective, we've covered this, and I don't think there is any other big gap. But maybe you have some concrete points that you want to address besides those.

[Speaker 2]

Euh not really. I was also interested in touching, I would say, also the environmental aspect in terms of recyclability. So I saw a lot of things, it was very detailed in the CRM Act.

And I was wondering also for the other aspect of the circularity. You get it. Circularity, like, for example, reusing, refusing. Like how did you think to that? Like how did you implement the other aspect of circularity?

[Speaker 1]

This is another point where we act in complement with another piece of legislation, which is eco-design. So the eco-design regulation that I think was just recently adopted, they handle a lot of the recyclability and reuse and regulation for products. The only thing we did in the CRM Act, because a lot of the products don't necessarily fall under eco-design regulation, is for rare earth magnets and some other types of magnets.

Well, you could have also put it in eco-design, the commission chose to put it here. I think it works in both. And I think it's a very smart thing, because what has to be done now for recyclability and reuse potential, magnets have to be removable.

[Speaker 2]

Okay.

[Speaker 1]

And of course, there's criteria around it. It doesn't have to be as easy as I open it up, I take it out, but you have to be able to remove them some way.

So that will really do a lot for getting the devices, getting the isolated rare earth elements to the recyclability. One thing that's missing is like grant deposit schemes, because there is a gap in, you know, I can remove the magnets and people actually removing them and bringing them to a recycling station. So that is a gap that actually does exist.

So we have made everything so that everything can be removed and everything can be recycled in theory. But now what we also need is incentives for people to actually recycle it. But the reason we didn't have this is because it's not competence of this piece of law.

So as I said before, just because something is good to have, doesn't mean we have to write it in the CRMA. So this really, if we notice there is a, or the commission notices, not enough people bring their magnets to the recycling plant, maybe they will implement something to help. So it's really, they all play together on the pieces of law.

[Speaker 2]

Okay, great. Thank you very much for that very interesting insight. And I will check also this specific law about eco-recyclability.

[Speaker 1]

It's called eco-design, ESPR is the abbreviation.

[Speaker 2]

Yes, perfect. And just maybe a last question about like social and environmental, it was also about the autochthon population. So you told me early on that Sweden was pushing to very ambitious goal in this specific act.

In terms of indigenous population and autochthon population, do you think that there is still a gap or that everything was well taken?

[Speaker 1]

On this specific point, in the end, it ended up also something very political, which first limits my ability to say much on it. And then there is so much

precedent on the principle of FPIC and on how indigenous people have traditionally not been as much respected as they should. That's not disputed.

Hum It was a very sensitive topic. I think in the end, we found a way that was very much close to the maximum that was possible in this act. And the parliament was not really so much the limiting factor.

So we really achieved as much as we could. And if you look at the formulation and compare it to, for example, UNDRIP, you will notice a lot of similar words. Yeah, but this is just my personal view.

Professionally, it's really a political point. And that kind of limits my ability to say something about it.

[Speaker 2]

Ah nono no worries, thank you very much already for that. It was just because I was wondering about it with the act and the different polemic that was about it. And maybe also I did already some interviews more with industrial and they were talking to me about the public awareness and public support related with critical raw materials and also the different objectives related to the CRM act.

So do you think that the public could be maybe a gap or so with the public awareness and support and something that you could have done with it?

[Speaker 1]

There is always a gap with big industrial projects and local citizens, I think mostly around the world, also in Europe. This NIMBY syndrome, we were aware of it. We tried to combat it as much as we can.

So there's, I don't know, like three, four measures in there that say member states and the commission shall facilitate public acceptance and the stakeholders and the project promoter, they shall engage with the local population. I think that can help to a certain extent. But overarchingly, I think the problem of local opposition to industrial projects is bigger than just CRM, because it doesn't matter what you build.

People will always oppose it also with, for example, renewable energy connection networks or wind turbines or whatever. There's always a position. So it would have been illusionist to think we can solve it in the CRMA. It has to be solved, I think, on local level with each project by engaging well with the local people and by listening to their concerns. But also, I think it's a certain change in mindset needed. If you really want some amount of independence and raw materials, not every mine can be somewhere else. We need to have

some in Europe. We need to have some refineries in Europe. So we need, on one hand, good engagement with local population. We need, on the other hand, a change in mindset of the population. But both are bigger than the CRMA. So I think we did as much as we could, but it wasn't really completely solvable.

[Speaker 2]

Perfect. Thank you very much. And also, you quickly talked about at the beginning of the interview about financing and also risk. Like you needed to make this act also attractive for the different projects. And so maybe can you talk quickly a little bit more about the financing procedure and maybe if there is something that could be improved also in that specific aspect?

[Speaker 1]

Yeah. Financing is another one of those things that I wish we could have done more on. So I wish we had a budget for this act, but we don't.

Which makes us kind of a bit dependent on the other financing instruments. So existing EU funds, there was a plan of step. So strategic technologies for your platform having funds for CRM projects, which isn't happening.

So we are dependent also on national funds, national banks, the EIB as well, for example, to finance this. The concrete procedure varies by project. But I think the main thing that we did is before the CRM act, it was very uncertain in Europe.

CRM projects were very uncertain because they took a long time to get a permit. They were not sure to get a permit at all. There was no European ambition on this topic.

So banks and everyone that's an investor was very reluctant to give capital or to invest and give their own money for it, I think. And what's changed now is we make the circumstances so that there is a political will behind the CRM act and also reduce timelines. So that makes it plannable.

If I'm an investor and I want to return on investment, I'm going to say I'm going to be more inclined to invest in a project that can be up and running in two years than one that can be up and running in 20 years. So we really improved the conditions. But yeah, in the end, it wasn't doable to have a dedicated fund here, which for me personally, I think it would have been a good idea to put a dedicated fund, but it wasn't the case.

So yeah, I think we did as much as we could in that context.

[Speaker 2]

Yes. Okay. It's also interesting, like the different ways to finance the project related to the CRM act.

And so for the next step, like once it's, I mean, it has been adopted and once it will be really implemented, will it have different, I would say, steps to improve the critical raw material act? And also like what key performance indicators will you use to ensure that it's worked well or not?

[Speaker 1]

Hum I think for this, to get a detailed opinion, you have to speak to the commission guys. There's a department in DG Grow, I can give you the name later, that they do all the enforcing and all the measuring and all that stuff. So of course, to measure whether it works and whether we live up to our ambition, we have the benchmarks, 10% of mining in Europe, 40% of refining, 25% recycling, 65% diversification.

And yeah then for the rest, it's really, I guess, difficult to measure it in numbers. It comes down to enforcement, because for example, for the partnerships, it's not better if you have 30 partnerships that each have one ton, it's better to have 10 partnerships with each 20 ton. So you have to fill it all with life and that's really up to the member states.

Hum and then we come back again to how credible this whole piece of legislation is. And of course, it does stand and fall with our environmental and social criteria that we set and how well they will be enforced. Because if we as the EU want to be credible on a global stage, and we always say, guys, we are the better partner, we have higher standards, we really bring you the value creation, we have to really do it and we have to hold ourselves to the standards that we set.

Otherwise, we are not any better than other partners in the global race. So especially if you think about third countries and think about Chinese involvement there, a lot of the times Chinese involvement in raw materials value chain will have very little value for the country where the material is extracted. We have to make sure that if we are involved, it does have value because otherwise what's the incentive for people to join us and not China or US or Russia or whatever.

[Speaker 2]

Yes, I really understand it. It's really interesting also about that. And is there maybe something we didn't talk during the meeting and that you think will be important for my specific research, I would say?

[Speaker 1]

Hum no, I don't think so. I think the point that's probably that can give you the most insight, it's insanely complex, as we spoke about. But if you look at the different connections with the different environmental legislation, so for example, if you look at how the article on public interest actually integrates with environment, with the flora and fauna habitats versus directive, this would, I think, help you in really understanding the complexity of it.

But I think other than that, no, we talked about most important things.

[Speaker 2]

Perfect. Thank you very much. So it was a really insightful interview.

I learned a lot thanks to you and your perspective was really interesting. I will have to re listen it to really integrate all the information because I mean, it's a really, I mean, overall, a very complex piece of legislation. And it's an amazing work.

I mean, it's great for you also to work on a very big project like that to be amazing, even if it's also be amazingly difficult, I guess. But and maybe like, do you have someone in mind that you could recommend me for further maybe a question or interviews?

[Speaker 1]

Have you already reached out to the commission? To DG grow?

[Speaker 2]

I mean, I don't think, I mean, I think I sent them messages, but I didn't. I mean, they didn't reply to be honest, so.

[Speaker 1]

Well, these guys are, these guys are really, really insightful. I think other than that, if you have, if you have, so if you have any chance to speak to them, it's useful. Other than that, if you probably, you said you talked to NGOs, you said you talked to stakeholders, could be interesting to hear like a ministerial perspective.

Because then I think then you have all the picture together. If you have someone from the parliament, someone from the council, NGOs, industry and the commission, then you can really paint the entire picture.

[Speaker 2]



So someone from DG Grow, so the commission, someone from ministerial and someone from, yeah, like a council, right? Perfect.

[Speaker 1]

Yeah, but so the council people are sent from national ministries, so you can either reach out to like the permanent representation in Brussels. So some, I don't know, you're from, where are you from? Which country?

[Speaker 2]

Belgium.

[Speaker 1]

Oh, Belgium. Okay, well, perfect. So you can just reach out to the Belgian perm rep.

They probably are very full now because of the presidency, of course. But maybe a French perm rep or a Swedish perm rep will be willing to speak to you. And the council staff are more like the back, the people that actually are employed at the council are more like secretariat.

So they don't actually engage in policy drafting that much. So it's better to speak to the people from the permanent representation or the ministries back home in Paris.

[Speaker 2]

Perfect. Thank you very much for your time and also for your help. It was amazing and thank you very much.

And again, congrats for all your work. It's amazing.

[Speaker 1]

Thank you very much. I have one question left. Do you have like a timeline on when you plan to publish or finish your thesis?

[Speaker 2]

So normally I can either finish it from, for May or for end of August. So one of the two. And it's really depends how it will work in terms of challenge because it's a lot of work, to be honest.

So I don't know if I will give it for May or for August. Yes.

[Speaker 1]

No worries. No worries. And I also wanted to offer that once you like progress more on your studies and you have some remaining questions, maybe on like how the law works or you want to ask some more questions again, we can do another interview if you want sometime down the line, because the specificities, as you rightly said, are very difficult to understand.

And if it helps you, I'm happy to speak to you again.

[Speaker 2]

Perfect. It will be really insightful. And I think that I will try to also give some recommendations.

So if before giving some recommendation, I will probably come back to you if I can to see if it's possible or not. Because you seem you are really an expert about it.

[Speaker 1]

Yeah I spent My 2023 on this act. So it would be worrying if I didn't know.

[Speaker 2]

So thank you very much, P4. And thank you, I will probably come back to you.

[Speaker 1]

Perfect thank you very much for your time, have a great day, bye bye.

[Speaker 2]

Have a nice day; ciao ciao.

## Interview with P5

[Speaker 2] = Gauthier

[Speaker 1] = P5

[Speaker 2]

I'm doing fine too, thanks. So, thank you for your time and also to be willing to contribute to my research.

So, before, let's say, asking you to introduce yourself, I will quickly explain you like the interview context. So, my name is Gauthier, I'm 22 years old and I'm a student at UCL Louvain and so I am doing a thesis about the, let's say, analysis of the European strategy about CRM and more focused on the CRM Act itself

and I'm focusing also on the environmental and social impact of it. So, also I can ensure you that for this interview, like, it will be anonymous and also confidential. If needed, it's always better to say it. And also, can I ask you if I can record the interview like that, I don't need to take note that I can focus on you and releasing it later on?

[Speaker 1]

Sure, please do, no problem.

[Speaker 2]

Perfect. So, maybe, can I ask you to introduce yourself and describe me your journey to become, like, kind of an expert in your field and also its link with CRM?

[Speaker 1]

Sure. Well, I basically, well, I studied abroad. Hum, It won't take long, actually, it's really, I really don't have a lot of this experience, but I studied abroad, first in Maastricht, then in Brussels, where I'm now.

Then I, you know, because I studied political science and Brussels is the capital of the EU, I did some internships, including in the Council of the European Union, under the French presidency, actually, and I was mostly focusing on the energy side. So, I was working on renewable energy, where, as you know, I mean, not directly, but there are also a lot of critical raw materials that have been used. Then I joined a NGO for Circularity, which is this network of social enterprises active in the circular economy, and, sorry, where are you from?

[Speaker 2]

I'm from Belgium.

[Speaker 1]

You're from Belgium, okay. So, I'm sure you know, for instance, Le Petit Rien, which are these small clothing shops, they're one of our members, so are the Green Group that you find in Flanders, and so all social enterprises that are active in the circular economy. Almost 1,000 of individual ones that we represent as a new association, and basically what they do, they do the reuse, repair and recycling of different waste streams.

So, Petit Rien, we talked about clothing, but there's also electronics, all kinds of electronics, from large electronics, but also consumer ones, like from washing machines to computers, to say very clearly, and of course, when we're talking

about something electronics, there are critical raw materials inside. And we're going to talk about this more, I guess, but we found that in all the discourse of critical raw materials, most of the emphasis has been on the supply side. So, on increasing the critical raw materials through mining, through trade deals, and not enough for circularity. So, this was the link with critical raw materials.

[Speaker 2]

Yes, that's really interesting. So, from your perspective, how closely do you believe that the actual outcome of this specific act aligns with its strategic attention, so securing CRM and also fostering sustainable practices?

[Speaker 1]

Sorry, can you repeat?

[Speaker 2]

Yes, yes no worries. So, from your perspective, like, how do you think that the CRM act aligns with its strategic attention, intention, like, particularly concerning, like, securing CRM and also fostering sustainable practices?

[Speaker 1]

Yes, okay, much clearer now, thanks. Securing CRM, well, I think, you know, there is a lot of emphasis on the, we can say, on the supply side, again. And on this case, I do think it's an improvement, because right now, other, in the US too, there are lists about critical raw materials.

So, this is about, you know, getting supply deals, increasing mining in Europe. This will help, of course, with, for the availability of CRM. Then again, on the sustainability side, I'm not sure it's that helpful, because, as you know, mining, although right now there is a lot of talk of green mining, but mining is not a green activity.

There's very little you can do to make it green. You can make it greener, you can make it better, of course, you should, but when you mine, you're going to have a bad impact on the environment. And so, yeah, so on one side, yes, the other, no.

If only there is a way to actually increase, you know, the availability of critical raw materials in a sustainable way, which is by increasing the circularity. And this has not really been done so far, as far as I know.

[Speaker 2]

It's very interesting. So, regarding the act itself, are there some parts where you would have loved to see more details and also maybe more defined definitions?

[Speaker 1]

Yeah, I'll tell you what happened, because I've actually been active in the drafting, well, not the drafting, the amendment part of the act, and we were partially successful, because if you look at the original proposal by the commission, there are, I think, three chapters, well, three sections of circularity, one chapter, and most of the emphasis there is on recycling. So, recycling, of course, is good, it's very important, but it's not enough, because as you know, the circular economy is supposed to reduce, reuse, recycle in this order. And especially recycling alone, if you look, there is a table that, yeah, maybe I could send you, but you can look it up easily, on the recycling rates of critical raw materials, and if you look at this, you find that for many critical raw materials, especially the rare earths that are used in electronics, the recycling rate is less than one percent.

So, recycling there, I don't think it's something that can help us. What can help us is increasing efficiency. So, making products last longer, so you reduce the demand, and so you use these critical raw materials for longer.

And going back to the directive itself, the relevant articles there are the, I'm going by memory, but it should be the 25, article 25 on circularity, where if you look at the text now, there is something that member states have to increase also repair and reuse, although it's a very vague reference, but still, it's better than nothing. And on article 27, there was something specific about the magnets, and the original plan was that recyclers should have the necessary information to enable the recycling of magnets, and so these permanent magnets that are, for instance, they're found in fridges, the large ones. Only we looked at it, and we say, you know, the same information that's helpful for recyclers, it's also helpful for repairers.

So, why should the repairers not be allowed? And now, if you look at the text, they say for recyclers and for repairers, refurbishers. So, something, there's an improvement there.

[Speaker 2]

That's really interesting. And also, like, do you think the CRM Act align or conflict with existing EU legislation in terms of environmental and social, and can affect or impact the CRM Act?

[Speaker 1]

Yeah, on the social side, I have to be honest, I'm not an expert, because there is a lot of issues there. But I can tell you, because I was active also, that there is this thing called the prior informed consent, which I see you're familiar with, you know, more than me, but this is not really respected in the CRM Act, which, as far as I know, which is a shame. And on the environmental side, well, we're seeing it right now, because there is, for instance, this very specific piece of legislation, which is called the WEE, the WEE, in French, the electric waste.

And right now, actually, they're changing the directive, and one of the key points, because they're saying what they're going to do, will be to focus more on critical raw materials, because there is a lot of these materials that we waste, because we don't know how to recover them properly, because, I mean, on a casing point, the disposable electronic cigarettes, you know, which, I mean, they're not, electronic cigarette is not bad in itself, but the disposable one, it means that you finish it, you throw it in the trash, you cannot recover anything, and most likely, it also catches fire, usually, in recycling facilities. This happens once a week, that one single cigarette starts a fire, and then you need to stop everything. So, this is really a waste, I think.

So, it's something that's happening. Yeah, there is this WEE directive, and one of the key elements, because it's a directive that was developed the last time, 10 years ago, but now the market of electronics has completely changed, now there is this new emphasis on critical raw materials, so they will need to revise it, and they're doing it now.

[Speaker 2]

Okay, it's really interesting, and maybe on the positive side of the CRM Act, like, do you think that, in terms of environmental, there will be, like, positive impact, related to this legislation?

[Speaker 1]

We'll see, we'll see, because it depends how it's done, and I only work specifically on the parts on circularity, so really on that chapter.

[Speaker 2]

Yes.

[Speaker 1]

But it depends, because right now, we're already seeing everywhere that there are new deposits of critical raw materials, they're popping up, even where I'm from, in Italy, apparently, there are big deposits, where we would never have

expected. I've also seen that there is a project to start mining in the Calanque area of the Marseille, which is, you know, a really unique and fragile ecosystem, so I doubt that this will be helpful for the environment. The provisions of circularity are actually really, really useful, and I really think we should do more on this.

I keep returning to this point, but I really think it's important, because we waste so much, and if we wasted less, we would have solved a significant part of the problem in a sustainable way, but it's still not there yet, because usually, when we talk about CRM, we talk about mining, whether it's in Europe or outside of Europe, we talk about trade, we talk, when we talk of circularity, we talk about recycling, which is good, but it's not enough, and what we need is to talk more about how we can reduce demand by prolonging the lifetime of products, and this, I think, we are seeing some first steps, and the CRM is a step in the right direction, but it's not really the focus so far, which is a shame.

[Speaker 2]

So, what do you think are the challenges related to circularity within the current CRM act, and how it will, let's say, impact this specific industry?

[Speaker 1]

This specific industry? You're talking about which industry?

[Speaker 2]

I mean, how it will impact, I mean, the vision of, or so, like, yeah, how it will impact, like, the vision of Europe for that specific transition?

[Speaker 1]

Sure, yeah, the challenge is, well, once again, I'm sorry to repeat myself.

[Speaker 2]

No, no, no, no worries, no worries.

[Speaker 1]

The recycling rates are low, and I can also tell you why they're low, because some of these elements, they're used in very little concentration in products, and often, they are combined with other elements, which are very similar to them. So, this makes it hard, really, really hard to extract them, because if two elements are really similar, so it means that they are close in the periodic table, then it becomes really hard to separate them. And if they're used in so little concentrations that it doesn't make sense economically, you know?

It's like literally finding a needle in a haystack, and you cannot do that. It won't be profitable. And then, also, you know, we have all these barriers to repair.

There is also this movement, the right to repair movement, and we also did write a letter on critical raw materials as part of the right to repair movement that I'm happy to share with you, but it's the same things I'm saying, only maybe it's nice to have them written down also as a source. And basically, yeah, all the barriers that, you know, for instance, if you buy the first one is price. Sometimes the price of a spare part is more expensive than the product itself.

So, what do people do? They buy a new one, because, of course, it makes sense. The easy example is, you know, the phone.

When your glass breaks and it costs you more to repair than to buy a new phone, most people buy a new phone. But each time you're buying a new phone, there is a lot of critical raw materials that are not recovered, and so this doesn't help. Also, so you have different barriers to repair, but you should also do something to create an ecosystem of repair and reuse.

In Belgium, we have Recupel, for instance, which is the, you know, in all the electronic shops, you see the thing, and it's actually a good practice compared to elsewhere in Europe, but we really need clear legislation to focus more on reuse and repair and not just on recycling, because I think that that could help.

[Speaker 2]

And so, in, let's say, ideal world, what would you have added in the CRM act to make it more impactful in terms of circularity?

[Speaker 1]

Yeah, this is quite technical, I'll tell you, but if you don't mind, I'll also share with you this letter here, because there you have it there. It's quite technical, I wrote it myself for the coalition, so here it is. And basically, it's explained better there, but the main issue is that it talks about, you know, at some point, I'm reading, just to be precise, introducing reusable products into preparation for new system.

Okay, I'll tell you. Basically, you know, right now, products, when you have a new product that you discard, like, for instance, I don't know, this one here.

[Speaker 2]

Yes.



[Speaker 1]

Put it in the recupel bin, and someone will take a look at it and see if it can be repaired, or if it cannot be repaired, so I need to recycle it to sell the materials. Right now, this doesn't really happen, as far as we know. I mean, maybe in Belgium, a bit, but it could be more, but elsewhere in Europe, it really doesn't.

And the issue there is that you should be able to differentiate, because sometimes we recycle a lot of products that could be easily repairable, or just simply they are fine, because a lot of people, you know, they just discard electronics because they are fine, and maybe they're old, they don't want it anymore. So it would help to ensure that these products are, when you discard them, it's protected, because sometimes you have these very big bins, you drop an electronic inside, and if the product does a two meter fall, it's not important if it was functioning or not, because it's going to be broken, because it won't survive the fall, and that is an issue. And then, yeah, I think so, that the important part is to ensure that you can also reuse and repair your products, and not just recycling.

And if you go to the letter, it's really the first point about article 25, and it's a point that we really didn't manage to get in. And of course, more technical, and I finished the ban on disposable cigarettes, because we're seeing this happening, I think even Belgium has an initiative that's going on, and as someone who also has, you know, an electronic cigarette, but not a disposable one. So I do think that it would be important to ban disposable cigarettes, because it's a mess.

[Speaker 2]

Perfect. And you also talked very quickly with an example with the phone, and when, I mean, the screen of the phone is broken, you tend to buy another one. So would you say that in the strategy of the European Union for, let's say, the critical raw material, it should have made a bigger emphasis on the public perception, or public awareness? Related to circularity.

[Speaker 1]

I think, yeah, that would have helped, and especially critical raw materials. There are a lot of studies, but I think also personal evidence. I think everyone at home is a drawer of old electronics that they never used.

They're just there, you know, we don't want to sell them, we don't want to give them away. And if we could get the hand on that stock, because that stock that's actually not in circulation, I think that could really help also with

circularity. Because right now, talking about gold specifically, they found out that there's more gold in a ton of electronics than in a ton of gold ore.

Ore is the rock where you mine the gold. Because right now, all the best gold ores, since we've been mining gold for centuries, are over. Instead, electronics, there is a lot of gold, and we know where it is.

So there are processes right now to recover it. So I really do think that public awareness is important, but, and this is also crucial, that it's not enough. Like, it shouldn't just be voluntary, there should be real incentives from economic incentives, but also on regulation.

And the critical raw materials, it gives us some broad guidelines, which are there, it's better than nothing. But now we need more specific legislation and initiatives to follow through. That's the auspice.

[Speaker 2]

Perfect. And also, so if I understood well, so you have the CRM Act, and you have also a lot of, I mean, it's also dependent on the different countries. So for example, in Belgium, it will be like different from Italy, because you have different rules, different things about that.

So would you say that in terms of implementation, there will be some issues or maybe some challenges or opportunity with the specific act and the part on circularity?

[Speaker 1]

Yeah, it's always the issue, because sometimes on paper, you have some legislation, which is very good, but then you look at the implementation, and it's not that good. However, I have to say, they were careful with this, with the CRM, because this is technical, new politics and legislation, but it's important, because they use the internal market, legal basis, rather than an environmental one. And it's a regulation rather than a directive.

What's important there, without going into the technicalities, is that member states have to transpose it as it's written, so there is less leeway. So at least, you know, they have to write it in their national code as it's written. Then, of course, you need to enforce it, you need to properly implement it.

But this time, they were careful to ensure that, yeah, that this wouldn't happen, that you would have more harmonization. The EU in this, they were careful.

[Speaker 2]

Perfect. And maybe also in terms of projects related with circularity, do you think that there was enough initiative within the CRM Act to promote that kind of project?

[Speaker 1]

We talk about projects, we talk about European projects.

[Speaker 2]

Yes, so here I'm talking about, so always the CRM Act and the project related with circularity, the promotion of those projects, because more in terms of strategic or so, aspect of it.

[Speaker 1]

Ah, yeah, you're talking about the strategic projects. Yeah, this was controversial. It's not my area of expertise, but I remember that NGOs were really careful, because, you know, there are some areas where, for instance, you're not supposed to, that are protected under European law.

That's the Natura 2000 sites. And apparently, this is not really respected. This is why, you know, for instance, you have talk of mining in the calanque, where in the calanque, you cannot do anything, because it's such a fragile ecosystem.

So this is an issue. On the other hand, I mean, you know, you will, in the end, you will need to get this material somewhere. And at least in the beginning, you must increase mining.

But at the very least, you shouldn't do this in areas where they're very important for biodiversity, for tourism, and for ecosystem protection. So I think strategic project, I get what they're doing, because they want to cut a lot of red tape and the right, but the red tape sometimes there for a reason, because you need to protect the ecosystem. And mining is a very environmentally dangerous activity.

So I think it's important to find the right balance. But it's also important to ensure that there are no good zones, very fragile ecosystems, the areas that are super important for tourism. I think there's plenty of materials elsewhere, and you shouldn't go there.

[Speaker 2]

Perfect. Thank you very much for all those insights. It was really insightful. And I'm wondering if there is maybe something that you would like to add and that we haven't covered yet.

[Speaker 1]

Not really, actually, I think, yeah, we've been through, I still think that, you know, to repeat myself once again, that it's really important to focus on circularity, because this is the only way to that we can fulfill our demand for critical raw materials in a sustainable way. Because we cannot do it through trade partnerships. That's just, you know, we take the problems away from Europe to Africa or to Asia.

And also increasing mining in Europe, it's an issue. I'm gonna share with you here also maybe this paper that you may have found. It's about circularity and critical raw materials.

And they explain in more detail what the gaps are in this regard.

[Speaker 2]

Perfect.

[Speaker 1]

That's the idea.

[Speaker 2]

Perfect. It's really interesting. So, also maybe like, do you have someone you would maybe we can recommend me to speak with to, let's say, improve my research on my thesis on circularity or even on broader subject?

[Speaker 1]

Because to be clear, your thesis is not just about circularity. It's about the environmental social aspect.

[Speaker 2]

Yes. So it's really like, so you have the CRM Act, and I'm really trying to understand like, what would be the impact or so of this strategy? That was also a reason why circularity was really important for me, because it was also linked with recycling, which is a big objective in the CRM Act and also with environmental because as you have mentioned, or so during this interview, like if you have success, if you successfully increase the circularity rate, you can also reduce the impact of mining and you can really like, palliate or so with other issues related with that subject. That's why I was really interested for that subject and circularity overall.

[Speaker 1]

Sure. Well, I can tell you there is a Belgian organization, I think they're based in Antwerp, who are really active on this, called CATAPA, and maybe you can try there, but there was also another one here from Brussels actually, but I'm not sure how active they were because they mostly work with Congo, but yeah, you can try. They're called the Resource Matters.

[Speaker 2]

Okay, perfect.

[Speaker 1]

You could try there.

[Speaker 2]

Perfect, Eduardo, and thank you very much for your time and also for your very good insight on that subject. So, I mean, I wish you to have a good day and can I come back to you or so if I have other questions on circularity?

[Speaker 1]

Yeah, be happy. Also, keep me updated with your thesis. Best of luck with it. It sounds really interesting, so really good luck and have a nice weekend, I guess.

[Speaker 2]

Thank you. Thank you, too. Ciao, ciao, P5.

[Speaker 1]

Bye. Bye-bye.

## Interview with P6

[Speaker 2] = Gauthier

[Speaker 1] = P6

[Speaker 2]

No, no, no, don't worry about that. I just put a lot of questions also. It's like, I will try to manage it with the flow of the conversation, I will say, so no worries about that.

Also, if there are questions that you don't feel comfortable to answer with, don't worry to tell me. So I will, before starting, I will... Asking to present yourself, I will first explain you also, like, what's the subject of my research and who I am.

So my name is Gauthier, I'm from UCL Louvain in Belgium. And for my master's thesis, in fact, I decided to analyze the strategy of the European Union on critical raw materials, and more as defined in the CRMA, and with a focus on the environmental and also on the social aspect of it. And in fact, yes, I already tried to interview a lot of different stakeholders around it to have a broad perspective.

I can also ensure you that this interview will be confidential and anonymous. I know that it's not really a problem for most of the person, but like that I mentioned it. And can I also record the voice of the interview like that?

I don't need to take notes and I can focus on you.

[Speaker 1]

Yes.

[Speaker 2]

Perfect. So maybe can you briefly introduce yourself and explain me also your involvement with the CRMA?

[Speaker 1]

Yes. So my name is P6. I'm working at a Company that Represents the Wind Industry since two years and a half.

I am by experience, I'm a trade specialist. I have also extensive practical experience in trade defense. Now I'm also dealing more with industrial policy for the wind energy sector.

As part of my portfolio, I have been working also on the critical raw materials before even the legislation proposal came out. So I was involved in the drafting of the Company that Represents the Wind Industry's position paper and follow up. And I also do consult where required our members on their any issues they have related to the critical raw materials and this new legislation's implementation.

[Speaker 2]

Great. And so as you told me you participate, I would say in the drafting of the position for the Company that Represents the Wind Industry. Can you maybe tell me like what were the main concern for Company that Represents the Wind Industry and also like how you influenced the CRMA?

[Speaker 1]

Sure. Well, first of all, this legislation started being prepared in a quite critical moment for our sector. Well, for many at the same time, which was right after the pandemic.

We have witnessed the first high increase in energy prices that have affected production costs and processing costs for many materials. And then also logistics disruptions for supply from external sources. And so what we have been facing in 2021 was first of all, a very dramatic shortage of European supply.

Well, as you may know, our continent is not particularly rich in some of these materials that are now considered as strategic and critical for technologies that are leading the green and digital transition. So the wind energy sector, like also solar sector, hydrogen, electric cars and so on, relies a lot on a long list of key materials that are mostly sourced, processed and refined elsewhere. And in addition to that, there are some existing monopolies in the markets of some of these materials.

I will name, as you may know, the rare earths. In that case, China detains the absolute global monopoly and also control of the market because of a very easy access to the raw materials, to the rare earths. Also a lower environmental and social standards when it comes to the refining and processing steps in the rare earth production that then leads to permanent magnets.

So in fact, this Chinese monopoly is there since already quite a long time. And so at the latest, after the raw material prices crisis in 2021, our sector has been fully exposed to the risks of over-reliance on one single source of supply. And it has become also very evident how urgent it is to try to diversify away from China and also try to build up local capacity where possible okay.

For the Critical Raw Materials Act in particular, we have been advocating for an inclusion of several raw materials into the strategy, such as concrete, iron and steel, because they make up to 90% of the mass of a turbine, including the foundation. In addition, we had included in our list aluminium, chromium, copper, manganese, nickel and all the rare earth elements, which are neodymium, dysprosium and praseodymium. The rare earth elements, although required in small amounts, are essential for, so they are not as relevant in terms of volume as much as steel would be or concrete or iron, but they are absolutely essential for the production of the permanent magnets that are used to either replace or integrate the function of a gearbox when it comes to converting wind into energy.

The permanent magnets are able to offer a very, very high efficiency for this process and they also make the size and the weight of a nacelle lower, which is particularly good for offshore wind, because for euh euh offshore wind, you know, it's offshore platforms that also require a lot of maintenance and service work around it and the lighter the better, you know. So, permanent magnets have been also used for many models of turbines to completely replace a gearbox. Now, we have been relying on this technology for quite a long time and then we, until we started realising that the permanent magnets can create us problems if we see a shortage or disruption in the trade, because basically even in case of geopolitical tensions, if China decides to retaliate or use permanent magnets as a weapon, trade weapon, we would be fully cut from the supply of any permanent magnets today. So, because of that, in our position on the Critical Raw Materials Act, we have also called for support to research and innovation into alternative materials where possible, but also in materials efficiency. So, trying to reduce the need of rare earth elements in a permanent magnet in order to, you know, decrease this dependency also by decreasing the actual required volume and then also trade diversification is one of the strategies that we believe is essential, trying to establish closer partnerships with countries that are more resource rich and with which we have more similar social environmental standards, because the due diligence in supply chains is also a topic that is growing in terms of importance in Europe.

So, in any case, there will be more scrutiny over the full supply chain that are behind each component and material within a turbine. So, this is also something that needs to be put already in the front of a strategy. So, ensuring that the sourcing of these materials, wherever they come from, also have the highest environmental and social standards possible.

We haven't openly advocated for mining and creating more mining opportunities in Europe, because not only it is a more long-term strategy that would yield results only much later, but also because it is also quite complex issue that when it comes to permitting, opening of new mines, there is a risk. And I was at this really interesting conference, I don't know, maybe you were there as well, by the Belgian presidency, the conference on the critical raw materials last Tuesday.

[Speaker 2]

Sadly, I was not there, but I will be in May. There is a kind of conference. I don't know if you are there.

[Speaker 1]



I will be there as well. Perfect. The Belgian presidency organized this very high level meeting about the critical raw materials last Tuesday.

And there was a quite large representation also from the mining sector in Europe. But what is interesting is that it was stressed that if we compare China with Europe in terms of opening a mine, it takes around 15 years to open a new mine in Europe. In China, it takes one year.

So, there is a high risk that we start opening up mines, trying to open, you know, moving the system to ensure that we can start digging and exploring. There is a risk that by the time these mines are online, they create redundant product that is not required anymore. Okay.

So, because of this huge time delay today, so we decided not to actively be advocating around the subject of mining because it's just a bit too complex. And we believe it's also very well represented by the mining industry in Europe today. But let me think what other strategies we have.

However, you may want to know that we have among our members, because we in Europe has, I think, 580 members today all across the world supply chain from the raw materials producers up to the turbine producers and project developers and utilities. So, we have a bit of everything. We also have a member that is called Neo Performance Materials and it's a very interesting one because it's a Canadian company that is now starting, it should start a project in 2025 to extract rare earths for permanent magnets in Greenland and to process and refine them in Estonia.

And this could be an interesting opportunity to serve the European market with a different type of permanent magnets. Okay. But one of the issues that we have heard from our consumers of these materials that produce the turbine is the problem of costs because especially because of the crisis we have seen in the prices of key raw materials, it has been difficult for turbine manufacturers to decide to buy a more expensive product but it is more local and has some specific standards attached to it.

Because in times of crisis, you are almost obliged to source what you can. So, this is why in terms of short-term objectives, we would like to see more diversification and here the European Commission could help by enhancing the reinforcing trade negotiations with countries like Australia and now there is the good news that they have finalized the agreement. But also Canada, United States, for example, for the investment, no Inflation Reduction Act haha, we are as a sector much in favor of the European Union trying to carve out a sort of

free trade status for European companies operating in the U.S. in order to try to also be able to source what is produced now in the U.S. thanks to incentives, you know. And also, yes, we believe that trade could provide some rather short-term solutions. What is good from the Critical Raw Materials Act is that it creates some more a radar on the assessment of supply risks which is extremely important in order to fully grasp where the criticalities are and especially for those technologies that we need to focus on if we want to be climate neutral and also survive in a digitalized competitive world, okay?

[Speaker 2]

That's really interesting. So, would you say, like, I mean, at what extent do the actual outcome of the CRM Act align its intend strategic goals and, like, particularly in terms of securing CRM? So, that was something you were looking for and so maybe enhancing, I would say, the sustainable practices. And are you satisfied at the end of the CRM Act?

[Speaker 1]

Let's say that we got what we wanted but we didn't have big... we weren't aspiring much more than that because, in fact, apart from permanent magnets which are very much critical for our sector, the other materials and their fate has a more indirect impact on us in the end because we are at the bottom of the supply chain for those materials. So, we are not directly impacted but, obviously, whatever happens upstream in the supply chain will concern us as well but we are just not in the in the first row when it comes to the other materials, okay?

We are in favor of incentivizing, for example, the higher recycling targets because, as many say, and we agree with that, we should make the most out of already existing materials that are already existing on the market, no? And so, try to also look into research and innovation when it comes to recycling these materials. That is absolutely... that would be absolutely beneficial also for us. But there is a problem with the permanent magnets here that, thankfully, has been taken into account in the Critical Raw Materials Act and it's the rather exemption of the permanent magnets recycling targets from the standard recycling targets that are given in the legislation because we were the ones telling the European Commission we do not have enough permanent magnets to recycle by 2030. So, it's impossible, you ask, to put such a high threshold because our turbines will be starting to get decommissioned in bigger volumes only after 2030.

And so, this was a success for us that we managed to have a sort of waiver or exceptional clause in the Critical Raw Materials Act saying that from 2031 on the Commission will start looking into the recycling targets and deadlines for permanent magnets. But before that, we would... so, this is very good for us.

I mean, it couldn't have been differently because there is just no... I could share with you, if you want, after the call, the figures we have showing how much we can actually recycle in 2030 and how much we need. So, the gap is huge.

The recycling alone, I'm not even talking just about the next 5-10 years, but the recycling alone can't satisfy the increasing demands of these materials. It's impossible. So, there needs to be a multilateral approach when searching for solutions. So, recycling alone is not the solution.

[Speaker 2]

That's really interesting. And yes, I will be glad to see the document you are talking about. It can be really insightful. And so, what would you say are still the gaps in the CRM Act and what are the challenges that could face, I would say, the member of a Company that Represents the Wind Industry because of the CRM Act?

[Speaker 1]

Well, we are very supportive of the compromised text because our key asks were taken into account, namely on the permanent magnets. And also, we didn't want to create too much burden for the single companies when it comes to the reporting aspects. There is just one problem remaining, which is proper funding, proper finance tools to support the reaching of the targets when it comes to recycling.

But it is more shared by other industries and sectors. But there is a widespread feeling that there is a lot of sticks in this legislation, but there is no real carrot. So, you see, there is a limit in what Europe, the manufacturing for these materials, the processing, the refining can do in terms of increasing capacity if there isn't enough support also to research and innovation, to funding for new facilities. So, there is this little, not little element missing.

[Speaker 2]

I understand. It's really interesting. And also, you talked about re-earth and recycling. From your perspective, how effectively does the CRM Act initiative support the implementation and promotion of the principle of circularity? So, by that, I mean recycling from one part and also reusing or maybe reducing

because you were talking to me about trying to reduce the use of those materials.

[Speaker 1]

Well, there are a couple of provisions that could be very helpful to support the sustainability aspects of these materials. There are, for example, provisions regarding the identification of permanent magnets inside wind turbine generators. So, basically, I don't know how familiar you are with the text, but starting from 27, wind turbine generators will have to have a label indicating whether the product contains permanent magnets and what is the material that these magnets are composed of.

So, also, there should be also information regarding the chemical composition details and also how to remove safely the actual permanent magnet from a decommissioned turbine. This is very important because it will definitely facilitate any further reuse of the permanent magnet. It is a requirement that did not exist before.

So, even if there was some intention to work on reusing these permanent magnets, it was not always clear which turbine had one, what kind of permanent magnets it had. So, it's a step forward, this labeling requirement. And then there is also a provision obliging wind turbine generators to also have put on a public website how much recycled content is already used in the permanent magnets.

But here we need to see how this is supposed to be calculated because the Commission will still have to specify the rules on the actual calculation, okay? So, these are small steps driving towards a better reuse of these permanent magnets. We don't know how much eventually we will be able to reuse for the same function and that's where we would also be supportive of any projects in trying to develop the most efficient reuse of the same permanent magnets if possible inside the turbine generator. So, there is still a lot of work to be done, but clearly this Critical Raw Materials Act came even too late already.

[Speaker 2]

Okay, that's really interesting. So, also you talked about recycling, but if I remember well, like the recycling rate for like critical raw materials that constitute the permanent magnets are very low. So, I was wondering how it would really help the industry because it was really, really low and when I think I looked at that.

[Speaker 1]

You mean that there will be little to be recycled?

[Speaker 2]

Yes.

[Speaker 1]

But this will increase because the majority of the turbines that we have installed in Europe today are not ready for decommissioning before 2030. But from 2030 on, they will start increasing. The number of decommissioned turbines will start increasing quite exponentially as compared to before 2030. This is our forecast.

[Speaker 2]

Perfect. And maybe could you elaborate on the primary environmental challenges or shortcomings present in the CRM Act framework? Yes, related with the environment in general.

[Speaker 1]

Okay, so on this one, I must say we haven't been very, very focused on within the Critical Raw Materials Act. That's where I could have used maybe the opinion by my colleague who deals more on sustainability. But I don't recall him having particular work streams around the environmental aspects.

It is possible that we did not, he did not pay as much attention to this aspect because of the most important ask we had, namely the delaying of the permanent magnets recycling deadline. So we may not be the probably the most relevant sector on this.

[Speaker 2]

Perfect. It's no worries about that. And maybe in terms of social aspects, have you like, so maybe in social aspect, maybe can you tell me if you know any gaps related with the CRM Act?

[Speaker 1]

We are content with the requirements in the Critical Raw Materials Act when it seeks for more, let's say, cooperation with countries that have higher social and environmental standards. This is a trend that is also reflected in other policy instruments recently. So when it comes to due diligence, for example, and responsible business conduct, we are active on it as well in the sense that we have initiated, we have started this sector initiative with members, where

members from our association are free to join if they wish so, but we are pushing them to do so.

And they would have, basically, they would be asked to make a reporting of how due diligence is being implemented throughout their supply chain. The guidelines, let's say, the inspiration there comes from the OECD and the actual guidance on responsible business conduct. So we see this as a template also for the operations of our members.

For the moment, it is not more than voluntary. But in fact, now with the CSDDD, the Corporate Social Due Diligence Directive, it will become also mandatory for major companies to perform this due diligence reporting and assessment and also enforcement. And there would be also fines in case of violations.

So I think we are, in any case, turning to an era where this is going to become mandatory for all companies operating in the EU and having supply chains also located outside. We also advocate for responsible business conduct as a pre-qualification criterion when it comes to renewable energy auctions, when there are wind energy projects assigned and there is an auction where participants bid in. We may have known also about the Net Zero Industry Act a bit, no?

[Speaker 2]

Which one?

[Speaker 1]

The Net Zero Industry Act.

[Speaker 2]

Yes, I haven't read it, but I saw a little bit about it, the Net Zero.

[Speaker 1]

Just to link it to the Critical Raw Materials Act and the due diligence aspect. In fact, the Net Zero Industry Act now creates an obligation for member states' authorities when they tender out a wind energy project, they have an obligation now to decide who wins the project. They will also have to look into their responsible business conduct.

So if they do not, if the participants in the auction are not able to prove their compliance with certain responsible business conduct standards, they will not be able to participate at all. They will be excluded. So this is something that we have been advocating for. And so for this reason, the Critical Raw Materials Act, when it comes to ensuring higher social standards for the provision of these

raw materials, is very much aligned with our own asks for renewable energy projects.

[Speaker 2]

That's really interesting. And so maybe I was also wondering, you talked about investment, but maybe for pricing, I was curious to know how significant do you think the impact of the CRM pricing volatility is on the wind energy sectors? And do you think that the CRM Act maybe does enough to support it, even if it was not one of your recommendations?

[Speaker 1]

No, in fact, the price volatility problems are not solved by the Critical Raw Materials Act as such. That's why we believe that a diversification of the sourcing could help us giving our manufacturers more choice when it comes to pricing. The more supply you have coming from different origins, the better prices you could get. And you would have more choice.

[Speaker 2]

Okay. So in the strategy, the one that you advocate, diversification is really key. Trying to have different partnerships with third-party countries. And that would help, in fact, to maybe manage the price better and also to reduce your risk in the supply chain, if I understood well.

[Speaker 1]

Yes, but it's not only a matter of price, but also of risks of shortage. And that would, because that can even endanger our ability to meet the Green Deal targets. We have a certain amount of turbines that we have to have installed by 2030.

And if we do not get all of these materials that are behind these turbines, we will simply not manage to reach these objectives. So it's a matter of price, but also actual volumes required.

[Speaker 2]

Okay. It's really interesting. And also maybe in terms of the transition between the theoretical framework of the CRM Act and maybe more its implementation, are you maybe afraid of some practical challenge that could surge or things that could be impactful for your industry?

[Speaker 1]

Can you give me an example to understand what kind of problematics you're looking into?

[Speaker 2]

Yes. So let's say that, for example, we talked about diversification. And we talked about maybe partnership also. And so, for example, in the CRM Act, for the partnership, they were maybe also talking about, for example, a term like additional value for the third party country when they do partnership with them. But the term is not really defined. So in the implementation part, the additional value can be, let's say, have some impact on the third party countries, for example, in environmental or social aspect.

But also another example, because this was maybe not the most accurate, but let's say that we have some objective in terms of mining for 2030. But as you have mentioned, mining project takes between 10 or 15 years. So for the implementation, they could have issues to be fast enough to reach the targets mentioned.

So really, in the implementation, the last example would be also about the countries. So here it's like European directive or European regulation more. But like each countries, for example, for recycling, have its own, let's say, responsibilities.

So in terms of implementation, a country is maybe more from the Eastern Europe that is maybe considered as less, not developed, but compared to Belgium, they could be different in terms of implementation.

[Speaker 1]

I see, you mean that this regulation could create some disruptions within the single market or differences in the implementation ability by member states.

[Speaker 2]

Yes, it would be really like, what are the difficulties that you foresee in the implementation of that big piece of regulation? Because there are a lot of different aspects. So it may be like some risk linked with the implementation of that legislation.

[Speaker 1]

It is very difficult to say already, because again, the key material for us is the rare earths, are the rare earths, neodymium, praseodymium and dysprosium. But we are so dependent today from, we are so dependent on the import of the full already assembled permanent magnet. And we do not even have enough



knowledge about alternatives or how each member states would deal with that later. Unfortunately, it was convenient a few years ago to simply import as much as possible what you need. This has been installed. It's still inside the turbine.

And it's whatever will happen with that, we can only find out once they decommission the turbine, you see. So that is a very big problem, because it's not the same for other industries where there is a more swifter, how do you say, reuse or scrapping of those materials or recycling. It's really different for us when it comes to those specific materials for which we have the highest dependency, 100%.

[Speaker 2]

Okay, I understand. It's really interesting. And so we talked also about maybe China a little bit and also with USA. And if you had to compare, let's say the strategy of those two countries in Europe in general, would you say that there is some points that we can take example on them or we can improve?

[Speaker 1]

Well, we know, we hear that, for example, there are lots of possibly illegal activities behind the sourcing of the rare earths. For example, in fact, it's not even China, the number one, maybe it's not China, the number one origin for rare earths, but rather the militarily occupied territories in Myanmar, which are smuggled into the Chinese territory. And there is a lot that we still don't know about how actually these rare earths are extracted and under which conditions.

In any case, I think there is no example to be taken from the upper part of the supply chain. What they have managed well is that they have this rather vertically integrated system in their supply chain, where it's basically, where they basically are able to manage costs more efficiently. Also, probably also the use of workforce, it allows them to make a lot of economies through a vertically integrated supply chain.

But it's not something that we can imagine really happening in Europe on the supply chain for permanent magnets. It's very difficult to compare ourselves, Europe, to the way Chinese operate in some of these monopolies they have, really. It's too difficult. Yeah, it's a difficult question.

[Speaker 2]

No, no worries about that. I had maybe a last question about sourcing. So I was curious to know like, how do the companies that are affiliate to your company

approach the sourcing of CRM? So right now, like, what are the most important criteria for them? I mean, maybe for rare earths, it was like, um, I mean, it's only China, so it's it's a monopole, but for the other critical materials?

[Speaker 1]

I think, you know, our focus is mostly on China and the sourcing of those materials that I mentioned.

[Speaker 2]

Okay, perfect. And so maybe, yes, I think I have asked a lot of, I mean, you mentioned a lot of interesting insight. Yes, I had maybe a last question. It was like, how do you perceive the potential for innovative design and the adoption of substitute within the technology relevant to your sectors?

[Speaker 1]

So I think we need definitely more research and investment in the research on what kind of materials can be substituted, indeed, because there are only few examples, but I can mention them. But then again, it's a matter of cost, but there is probably a good chance to be able to replace some materials with others that are less complicated to source. For example, iron and, sorry, aluminium and copper can be a good substitute in certain cases.

I think it's in the cables for wind. But, well, one needs to check them properly. What is the risk for the sourcing of one material versus the other? Ideally, it would be, it should be possible to substitute a material with one that we have abandoned in Europe or that is recycled from a precedent material. But there is still a lot, a lot of research to be done on this and the costs. So we need more information on how to replace which material by what. And it also needs to be a more affordable material in order to make this shift really realistic.

[Speaker 2]

I understand. And I was wondering also for the cost part. So like here, like with the CRM Act, like Europe really tried to develop its value chain or so in terms of CRM. But so if I understand well, like the costs and the price of the CRM that are, let's say, that will be produced in Europe and also developed in Europe, the cost aspect will be really important for the wind industry, right? Compared to other countries.

[Speaker 1]

It will. We have told that to even to our member that wants to start producing permanent magnets from Estonia, the cost is also relevant. So there needs to

be some sort of solution if possible from, with the help of policymakers to ensure that the costs can be driven down to a level that is simply affordable. Because it's pretty obvious that there will be, there will be a premium on the new local capacity.

[Speaker 2]

So it's not really a problem that there is a premium in that specific industry, but it must be affordable, right?

[Speaker 1]

Yeah, it must be affordable because the price premium as such may become less relevant once we are in any case obliged to make use of a product that has a different level of quality and not just cost, okay? Such as the example I mentioned before on the way wind energy projects are assigned, where in fact the authorities that have to select the winner would look also into other criteria such as responsible business conduct, but also sustainability of the products used in the project. So this is going to become more and more relevant and it could basically, well, it will help in making a choice between one product and another, not just because of the cost difference, but also because of the quality and standards, higher standards attached to it.

[Speaker 2]

Really interesting. And maybe finally, we discussed a lot or so, we discussed about the objective of the act for the permanent magnet that you say at first it was really high and then they changed their position. But for the other objective of the act, like the percentage for recyclability, do you think it's feasible?

[Speaker 1]

We do not have an answer on that, but I hear, because I do attend often meetings with other industry stakeholders, it can look a bit challenging. So it needs to be seen what kind of supportive extra measures will come as well together with the critical raw materials act, because it can, for some materials, it can be a bit challenging to reach this target.

[Speaker 2]

So if I understand well, the critical material is like a first good, let's say, not legislation, but a first path towards what we need to achieve, what they need to achieve.

[Speaker 1]

Exactly. But it came already late.

[Speaker 2]

Why is that?

[Speaker 1]

Because the monopolies that there are already out there for these key essential materials are established since a while already. And there is always a risk that we may be facing some sort of, again, geopolitical crisis, which will result into the cut of supply for semiconductors or for rare earths, you know, we are at such for some of these materials, our dependency is still at such a high rate that it represents a huge risk. And that's why this sort of initiatives should have started some time ago already.

[Speaker 2]

Okay, I understand. Thank you very much for your time and insights. Maybe is there anything else you would like to add that we haven't covered and that you think it could be useful for the thesis?

[Speaker 1]

If you want, I can send you a link to our position paper on the Critical Raw Materials Act and the one on the Green Deal, if it can help complement your work. And I will also send you the graph that I mentioned before on the permanent magnets recycling up to 2030.

[Speaker 2]

That would be perfect and very kind of you. And maybe, like, who else would you recommend I speak with to gain further perspective on this topic?

[Speaker 1]

Eurometaux, they have done a wonderful study. But you are from which university?

[Speaker 2]

UCL Louvain.

[Speaker 1]

Because they made a fantastic study through the KU Leuven called Metals for Clean Energy. And it's a fantastic reference showing how much the demand for this certain materials will increase by sector and what are the bottlenecks. I'm sure you will find it very useful.

I can send you this as well now in an email. And I would recommend you contact Eurometaux people. You can find the contacts on their website, because I know they've been doing extensive work on this subject.

[Speaker 2]

Perfect. Thank you very much. Grazie mille P6 for your time and also for your insights. And thank you. Thank you very much for everything. It was really a pleasure to do that interview with you. And it's really insightful for me to really understand the perspective of your company and also the issue and the impact of the strategy that can have on this specific sector. So thank you very much for that,P6.

[Speaker 1]

You're welcome. Good luck with your work. And I think I might see you at the big event. I don't remember if it's the RARE or something, but I think we know what we are talking about.

[Speaker 2]

And I don't know if you come also at the event of Eurometaux. I think they are doing one event in like 15 days.

[Speaker 1]

Yes, I'm going. Yes. Yes. Well, it's something called resilience in the title.

[Speaker 2]

But yes. But thank you very much P6 and have a nice week.

[Speaker 1]

I'm sure we'll catch up in person.

[Speaker 2]

For sure.

[Speaker 1]

Good luck.

[Speaker 2]

Thank you very much. Ciao, ciao.

[Speaker 1]

Ciao, ciao. Happy Easter.

[Speaker 2]

Happy Easter too.

## Interview with P7

[Speaker 2]= Gauthier

[Speaker 1]= P7

The introduction and request for consent, as well as the explanation of the interviews, were properly requested and validated, but were not recorded.

[Speaker 2]

Hum so maybe, can you briefly introduce yourself and explain me your involvement with critical raw materials in the CRM Act?

[Speaker 1]

Okay, sure. So I'm the Global Lead on Mining and Metals for an NGO that Protects Endangered Species and Their Habitats. So my work basically is looking at the value chain of minerals and especially metals from the mine to the end products.

So really talking quite a lot with mining companies, with smelters, with producers of those metals, as well as with refiners. And in the end, with the downstream companies, so quite close contact with automotive companies or jewellery companies or tech companies, when it comes to the impacts they create. And then there's a lot of bunch of things related to circular economy, for example, other parts on that.

And then policy plays a big role as I'm part of the expert group for the European Commission on raw materials, as well as for the German government and for OECD. And therefore, the Critical Raw Materials Act plays a big role because it's one of the legislation which addresses obviously environmental footprinting of those minerals. And it's something which is important for the European legislation as well as for Germany then in the end, which is something I'm based in also interested because I'm quite working on the German policy working field as well.

[Speaker 2]

That's really interesting. And thank you very much for this introduction. So maybe can you tell me to what extent do the actual outcomes of the CRM Act align with its, I would say, strategic goals, particularly about securing CRMs and also like, and seeing like sustainable practice, are you satisfied with it? And maybe can you comment on the feasibility of this objective?

[Speaker 1]

That's a short question with a long answer. I mean, so generally, I mean, this is, I think there's one mistake like in the discussion, I think there's something you have to be, you have to understand as well from a kind of research and thesis point of view. You know, even though it's the narrative is really about sustainability, it's about responsibility and stuff like that and social acceptance in the end, it's really about geopolitics, right?

So, at the heart and core of those acts and various initiatives is fundamentally geopolitics, right? So it's the resilience of the supply chain, especially against China, also against Russia, but also in some extent against the US because of the Inflation Reduction Act.

So there's, you know, there's a lot of things here on the table, which is more on the geopolitical and kind of the foreign policy agenda than it actually is on the environmental, social or even economic parts of it, right? Having that said, I think the to create that resilience and to have more mining within Europe and also to attract more strategic partnerships. In general, I think it's, I think it's a good thing that we do have legislation on that.

I think it's unfortunately, at least 10-15 years too late, but it's still valuable. Some parts of that have just huge gaps, right? I mean, like, one would be the 40% of, you know, of raw materials melting is not going to happen like this.

There's no way we've done a study of battery raw materials just published last week, a summary on that with systemic together. And, you know, the problem is that the strategy is not really it's rather a vision than actually it's a strategy because it doesn't explain how it will be invested in. And we need billions and billions to invest in and there's no understanding of how do we create 40% for some of the critical raw materials, some of the critical raw materials like graphite, it's not going to happen this manganese is going to happen so and so on and so forth.

Copper could be possible to do that. Aluminium and stuff like that might be possible. But all of that also relates then on two things on the smelting part, the problem is, which in Belgium might be different as well as in France, it's really

the intense related to Germany and to other countries, the price of energy, right? The price of energy is too expensive at the moment in Germany. So it doesn't make sense to smelt aluminum at the moment, or it's really cost intensive.

So the question will be probably those companies as team at the big aluminum companies not get into France because it's cheaper there, right? The same goes to Sweden, and so on so forth, Iceland and then in the future, probably and even Norway, even if they're not part of the European Union, but they have hydropower energy systems, which is cheaper, stuff like that is really important. So the critical raw materials doesn't explain that how they how they will create this kind of visibility on the global market to global market, right?

I mean, they want to have the 40% they need to sell to the global market. And why would a buyer buy more expensive copper than they would buy cheaper copper that needs to be kind of a definition why that is, it could be and this is kind of the segue, and it needs to be responsible methods and responsible mining, responsible smelting, and so on so forth and I think there's a there's a big value, there's a big USP.

And the second part is to why would Indonesia, the Philippines give you the nickel basically, to smelt it in Europe, if you do five times more money, when you actually do that, we've sued Germany sued Indonesia in front of the World Trade Organization against that, you know, even though they're one that you can see most of the concessions in Indonesia about nickel is Chinese made, right. So to have access to the 40% of those commodities is difficult even to get, even if you get them, which I really doubt, like, I deeply doubt that even if you would get it, it's nearly like I don't see the capacity of smelting at the moment, there's no capacity. And to do that in the next six years is totally, it's totally, it's an illusion. That's not going to happen, right? We will have perhaps 25%, if best, but we won't have 40%. About the mining, the 10% also kind of illusions that can happen next six years, everybody, everybody knows that even the policy makers, right, so it's, it's not going to happen, you need to have a lot of investment, but also you will have a lot of a lot of social acceptance in different places to to to adopt to and that would be easy in Sweden, that might be easier in Finland, it might be really difficult in Portugal for lithium, it will be really difficult in Portugal with lithium, especially when the Prime Minister is just under just stepped out because of corruption to lithium.

And then you have other countries like Poland, and so on so forth, it's going to be difficult Germany as well, right? So there's this whole conversation how



even if you have them, and you built them in six years, which also is not possible, it needs up to 15 years, but nevertheless, and you have the investments, you need the social acceptance, and this is going to be really tough. And the last part, basically, on that 25%, if I remember, right, it was 25 about circular economy.

[Speaker 2]

Yes.

[Speaker 1]

And recycling at 25, right, it was 15, two days before, and then they changed it rapidly. But that's a good thing. I think that's, that's a good sign. But again, I think in general, there will be a lot of we have a lot of trade offs, especially when it comes to permitting systems, when it comes to the water framework directive when it comes to the habitat directive.

And so there will be a lot of trade offs. And that's something we will see in the future. Now how this is going to be handled by the member states themselves. And this is not the European Union level anymore. It's the conversation with the German government, with the French government, the Polish government, right.

[Speaker 2]

So so you will say that the CRM Act is a good first step, like in terms of vision. And they're so like it's as high goal, but it's to launch it, but it means maybe like the strategy and more implementation aspect of it to really make it, I would say better, right?

[Speaker 1]

Yeah, to to implement it, you will need way more than everything, which is just that so you need other legislation, the coherency between. So for example, there are two legislations which are really key for that one is the net zero industry act, for example, they they, you know, there's a reason why they were why they were published on the same day, right. So, so those have to be aligned with right, they have to have to get a hand in hand, because also of investments, then you have to better regulation, which is also key to that, because a lot of commodities, and also a lot of recycling, benchmarking within other regulations (e.g. batteries regulation) can be higher than within the CRM Act.

So they have to be coherent. And also a lot of those commodities, obviously, commodities, which could be mined in Europe, some of them, right, lithium, for example, even copper. So that's about coherency.

And this is not, it's not really clear how it will be done. Currently. So yeah, again, it's not really a strategy.

It's rather kind of a vision paper in some cases, and and to ratify it and how to do that implemented is something which the member states have to address. And then it's really about local and regional appearances when it comes to permitting systems, when it comes to social acceptance. And that's really different in Europe, that there are a lot of countries which are in favor, and some are not in favor, and so on, so forth. It's got to be more complex than, but they've done it quite fast. And there are a lot of like, for example, the part on FPIC. So the free prior informed consent is not part of it.

We you know, we were I together with EEB in Brussels, we created the like an NGO, not an NGO, sorry, but the raw materials coalition with over 50 NGOs. And we're working together on that for quite a long time now about the critical raw materials act and FPIC, for example, was really was really striven against by Sweden and Finland, but mainly Sweden, because in Sweden, as well as parts of Finland, they the only region in Europe who do actually have indigenous communities, right with the Sumis, Sumis, and therefore, Samis, sorry, and therefore the, they were really against it, right to have something specifically written in. So there are a lot of gaps, right. But this one gap, for example, which other NGOs would address as well.

[Speaker 2]

And could you maybe tell me, like more like potential challenges that you can see, and that can, let's say, arise during the CRM act implication.

[Speaker 1]

I mean, the first part will be, so normally, in this legislation process, one country will have a blueprint, right. So one country will actually start to implement that in national law, right. And this really important.

So the first country who does that, because most of the other countries, then not always, but a lot of them will basically copy paste most of that part, right, and then change it a bit, depending on the country and the region and whatever. But in general, it's really similar, right. So that will be the first challenge. So how strong is the first blueprint? And who will be the first to do that? Who does that?

So for example, if Germany will be the first, you do have a lot of smelting in Germany still, and you do not have any mining, right. So that's complex. In France, you do not have that much smelting, but it's growing some smelting, but you do not have a lot of mining as well.

If you Sweden will be the first, which is most likely they have a lot of mining, like they're the biggest mining country in Europe, obviously. And they do have some smelting, right. So for them, they do have the expertise in both of that and actually what it means.

So, so, but they are also really against involvement of in some cases, a lot of it against involvement of particularly some, some, some communities when it comes to, to, to permitting systems, for example, whatever, right. So they have a different kind of mining code and so on. So it really depends who does that, that would be the first part.

So the, the benchmarking and to translate it, because again, as I said, it's a vision, right? So you need to translate it in law and translate that in law is, is way more complex, right? So what does it mean for a company if they're not in line with legislation, the European level, do they get sanctioned?

And the question is who is responsible for that? Normally the critical raw materials, like I'd say is, is in, is in the ministry for economics, right? But that can differ as well from the countries and they have a different mindset, right?

So obviously the environmental ministry would have a different point of view when it comes to permitting system than the economy, economy ministry would have, right? So that's the first question on that whole national translation into that. The second part is coherency with other European Union legislation, again, battery regulation, the benchmarking when it comes to, to recycling rates and so on and so forth, right?

So the coherency and I screened about 30 legislation, which, which are part of that, right? It could be the waste directive. It's about the critical, sorry, the, the conflict minerals regulation, then that's, you know, there's so many things which you have to align within that. So that's going to be complicated. Then the third part, we, or there are a lot of parts, but another part, which will be difficult will be the strategic partnerships. Okay.

Because they just announced one with Rwanda, if I remember right. And we talked with the commission on that. So it's not really clear how those strategic partnerships will end up, right?

So it's, what do we, what do we do to give what we have to offer basically, so all the parts on that will be a big question. So we will get those commodities, you want to get those commodities? How do we get them from Rwanda, from Namibia, and from Mongolia and whoever, right? So it's going to be, it's going to be a complex story. And this is not, this is not solved at all. So the strategic partnerships is really something in the loose. And I think there will be a problem, which is always a problem in the European Union, that you do have a European strategy, right? So the European Union will have a partnership with Rwanda, for example, right? On raw materials. Nevertheless, Germany already has a partnership with Chile. France has a partnership with, you know, I don't know, Mozambique, right? So the member states themselves, they obviously do that bilaterally, right?

And there's some advantages in doing that in the European level. But as you know, the Europe is not really, it's not really united when it comes to trade, and when it comes to those kinds of conversations. So strong countries, again, like Germany, like France, like the northern countries, will have a huge influence on that. And that won't be pleased by countries in the eastern part of Europe and the southern part of Europe, for example, like Portugal, but also like Romania, and like, even like Poland, because they do not have this kind of power to have bilateral contracts with Chile or Argentina about lithium, right? So they obviously looking to the European one to actually get access via the European trade. And that's going to be difficult.

I think that's, that's something which is always the case against the big Germans, and then, and then stuff like that, which is totally a valid point, right? Yes. So I think there will be a big problem between the European member states.

Yeah, I think that's, that's the main part. And then a lot of other parts in terms of investment and stuff like that. But I think, how to attract private investors and stuff like that.

And then the like, from our point of view, the biggest problem really is to hear it like the biggest problem will be, and there's a lot of conversation. And I had this conversation, I think, last week with Ms. Bentele on, Bentele was one of the, is the rapporteur for the Conservative Party within the European Union. And one problem will be the legislature, like the Habitat Directive and the Water Framework Directive, right, in terms of the, they have to be aligned.

So that means if you have a permitting system, right, so if you do want to have a mine, which most likely will be then, to be honest, in a Natura 2000 site, right?

So now to a 2000 site is Habitat Directive, it's protected area, you can actually do mining there, there's a lot of mistakes by a lot of NGOs, but also a lot of companies and even mining companies, from a from a law point of view, you can actually do have mining in the Natura 2000 sites, right, but there's a whole process and the complex, rightfully so, but there's a complex, there's a complex story, but you can do mining in a Natura 2000. It's not forbidden. But you have to be aligned with an environmental impact assessment and stuff like that.

Now you have a project, which, which will be decided on even European or member states level to say, well, this is a strategic project, right? Let's say, there's a copper mine in Spain. And let's say Spain is really in favor of that Spain will say, we this is a strategic project, we want to do that in 24 months.

Right? So we want to have the system you want to start in 24 months, that's going to rush a lot of other things, right? In 24 months, even though the environmental impact assessment is excluded, so that can take longer.

But the social part has to be done in 24 months, for example, that's got to be a big problem, right? So the socialized to operate all the conversation with communities, that's not going to be dealt with in 24 months. Never even not only that, but also how the impacts of those mines will have a longer impact on the habitat is just not something you do in 24 months, it's totally realistic, but it was decided to say, well, in the end, we need those.

This is a high priority, no matter what, right. So there will be a lot of, and there will be in my point of view, and I said that publicly as well, there will be a lot of lawsuits against that, because it's really clear in terms of the law. And what's going to what's going to happen, you know, when, when it's not aligned with the habitat or the water framework directive, but it's actually aligned with the strategic partnership in the Critical Raw Materials Act permitting systems, it's going to be difficult to decide on and I think they will have a process.

And I think the process will be the same as in Natura 2000. And then I think that that's going to be fine. But that still will be a lot of complexity in because obviously, countries like Sweden, or even like Portugal, but this is a huge GDP boost, right?

They, they want to have those mines and I can't see a process where this will be easily happening than it's done before, right? So yeah, that's kind of a big problem on the horizon.

[Speaker 2]

So it's really interesting. I mean, in your answer, you talked about or so like partnerships and also strategic project. And I think I will ask you one or two questions quickly about it.

So about strategic projects, if I understood well, like even if like they try to shorten, I would say the procedure. And as you mentioned, or so like for the assessment impact, it will be outside the 24 month. But if I understood well, like it doesn't include, I would say the social part must be included in the 24 month. And do you see other issues related maybe with a strategic project? And also maybe the definition of this project?

[Speaker 1]

Yeah, I mean, it's not really defined, right? So I mean, a lot of problems in that kind of sense. So the strategic part like this, there's the strategic projects. So basically, if you have the country can decide whether it's a strategic project, right? So Spain can say, this is a strategic project, we need those copper mines, and it's important for Spain, for many reasons. So then they can decide on that.

And then they say, is this a strategic project, so they can get the permitting systems up to 24 months easier than they've done with other projects, right? Once they do that, there's a process how to do it in 24 months. And the environmental impact assessments of water issues, for example, they can go up to 48 months forever, right?

Still, the question will be what's going to happen after in five years, they find out, oh, actually, we can't do that. And then it's already built, or they already started to build this site. I, you know, the questions like that, it's not really answered at the moment, right? And then also, the questions on on cultural sites or whatever, right? So it's not really clear how that will be part of it, right? And the trend that the process of that is actually aligned within the Natura 2000 sites process, I think.

But that's, again, I do have a lot of doubts on that I do have a lot of answers on that, right? So I can't get really into detail, because we don't, we all don't know really, how they will look like, there will be a problem, because some of the strategic projects are within Natura 2000 sites, for example, as I did understand it, hopefully, right. But the problem is, in some Natura 2000 sites, we have a Natura 2000 sites, let's say, in Belgium. And then you have one, which actually it goes from Germany to Poland, right? So it's a transnational habitat, which habitats make sense, they don't really care about borders, right? So so then it's

actually not, it's not only Germany and Poland to decide on that, but it's also the Commission, because the Commission can have a seat have a seat on the decision making process, which makes sense.

But, you know, let's say you will have 50, which I don't let's say it's a number I pick up, but let's say 50 50 50 concessions about mining, and the European Union will be in some parts involved in that it's going to be it's like who decides on what right, it's going to be a bit complex, because obviously, member states don't want to the opinion to site on their kind of territory, right. And as well as Germany and Poland will have conversations on that, and most likely really bad ones as well, because the environmental legislation in Poland is weaker than the ones in Germany, for example, that's creates a lot of problems in between. And then you have the Commission, and basically pushing Poland, for example, on some parts on the permitting system in Poland will won't be happy, right?

Then that again, the strong Germans and the strong European Union in Brussels will tell them what to do right? So so that's kind of I think will be will be a challenge and the whole process how to decide on that. And I think the first part is easy that the country will say this is a strategic project, and then it will get into the European Union's database to say we have 25 strategic part euh strategic projects, they have to figure out why are they strategic?

Are they strategic in the sense of the commodities we need, which will be a yes, mainly that all of the commodities will be the part of it, which are critical at the moment in Europe, most of them, so I don't think that's a problem. But then it's a question to decide on the permitting system and who's in favor in some countries also big problem actually is which they haven't. That's why there was a lot of problems in between the Parliament and the Commission.

So some countries do not have a lot of capacity within the ministries, right? They because it's regional, it's federal. So in those regions, they might have never had a mine, right? And so they have nobody working on environmental impact assessment, or working on on permitting systems for mine, right? They've never done it. So it comes not from, let's say, Catalonia, but it comes from Madrid, right? So but they, they have to do it federally. So it has to be somebody in Catalonia, who does that, right? So it's, there will be a lot of capacity problems within the countries itself.

And then having Brussels or Berlin, whatever saying you need to do it like that is complicated for Poland, for example, in my kind of theory, if you do not have capacity in Poland to do that, right? So you just have to have the expertise. And there will be a lot of problems like that. And we've seen that with a lot of other

legislation. So they have to build up capacity. And that's why that's why also the parliament was really against it.

The parliament was in favor, but actually, the member states were against it in the sense that when it came to when it came to environmental impact assessments, and stuff like that, because basically, the parliament can say that, but in the end, the member states, they have to implement it, and they have to get capacity behind it. And they have to pay for that. And now within the country, obviously have different departments or whatever it's called in country and states. And they have a whole total different power balance. And it's not as easy, right. And so that's makes really complex. And that will be a huge discussion to have that in the future when it comes to strategic projects, the regional, the capital, basically, and stuff like that, there will be a lot of issues and capacity.

[Speaker 2]

That's super interesting. And maybe also related to it, like about the certification scheme, could you maybe discuss about any specific challenges, opportunities or risks related to that, I would say, to certification scheme to, let's say, launch also strategic project?

[Speaker 1]

Okay, so certification is standards are kind of seen as kind of the answer to the diligence process. So basically, if a company or country basically is in line with certification schemes, their environmental and social due diligence is done, which is not the case, right. So as we in all civil society organizations say, that's one part of it, but it's actually, it goes beyond certification, right.

And then it really depends on how good the certification and standard scheme is. We endorse IRMA, for example, which is now in our point of view, the best mining standard, and then you have all the others, right. And I've been involved in most of them.

So the aluminum stewardship initiative, The Copper Mark, Responsible Steel. And then you have the Mining Association in Canada with their TSM, and so on, so forth, a lot of other standards. And then you have ICMM, which is not a standard, but an initiative by the mining industry globally.

And so there are a lot of this kind of different benchmarks that most of them and this is kind of where we where we got in the end, likely, we got something in the is about multi stakeholder governance. So all certification schemes have



to be multi stakeholder governance, right. So and there were a lot of countries, especially Sweden was not in favor of that.

But if you have an industry standard, okay, so that's an easy win, right. So you have an industry standard from the mining industry. So like TSM, I'm not saying it's really bad, but I'm not saying it's really good as well.

And within that, to decide on them to say, well, actually, they did a due diligence, because of their industry driven standard, it's just doesn't make sense, right? That's not how it goes. You have to have a multi stakeholder, you have to have communities involved in civil society organization being involved, and then researchers and scientists, and they can't be all from industry, that doesn't make sense, right?

The other way around wouldn't be pleased as well, if we would decide for the industry from a civil society point of view, talking with them about the growth, right, that doesn't make sense. So, so this is kind of a multi stakeholder point is really important. Then you have different kinds of benchmarks. There are some ones, some certifications which society thinks better of, and some which are bad. And then there's a lot of policy behind that.

Yeah, I mean, there's a lot of policy behind that. There were a lot of influence by the Canadian government, and then there were influence by, but so CERA was involved. And so it's really, it's really, it's, yeah, it's a lot of involvement by different stakeholders.

[Speaker 2]

It's very interesting because when I read, I would say, the act multiple times, I had the feeling that, oh, it was written also that the certification scheme would solve a lot of issues, at least with the environmental side, when I read it. So it's good to have also that perspective. And you also talked about, let's say, partnership early on.

And so how do the strategic partnership in the CRM Act ensure mutual benefits for the EU and also third-party countries, especially maybe in terms of social and environmental sustainability, in your opinion, because also it's a point, if I understood well, like the strategic partnership are more for the implementation side and commission and also countries than parliament that wrote it.

[Speaker 1]

Yeah, but I mean, again, I can't really say a lot about that, because I think in the end, what they will have to offer is something which is not clear. I mean, they're

saying basically that they do understand that we need to offer more than we did in the past to those countries where we need the commodities from. It's the same with hydrogen in Namibia, right?

I mean, in the end, it's really about infrastructure and developing infrastructure in those countries. Well, it depends, to be honest. But I do think that, obviously, there might be some advantages in terms of an environmental legislation point of view.

And the social point of view might be the case. But in the end, those are sovereign states, right? So I don't see a big influence, and I haven't seen in the last 10 years by the European Union when it comes to human rights abuses in countries where we do need commodities from. That's not really the case. So I don't think that's going to be an issue when Indonesia offers us something. But, you know, stuff like that.

It's going to be complex. I don't think that's going to be the case. And so they try to get strategic partnerships also with countries who are more aligned with the European Union.

But a lot of them are not, right? So that's going to be difficult. And then you have, like, with South Africa, you have problems as well as with Brazil at the moment, in terms of the geopolitical issues related to Israel, Palestine, but also Russia and Ukraine, right? So there's a lot of layers on top of that. So, you know, South Africa is not really addressing Russia as an aggressor. So that's a problem for the European Union. And the same goes to Brazil when it comes to Palestine. So a lot of problems related on that. So if you do have those partnerships, you need to be aware of what they stand for in foreign policy in general.

And that might be a problem, right? For smaller countries, not so much. But South Africa and Brazil, those are big players also on the global market for metals, but also in general.

You know, I mean, Brazil is a big partner with Mercosur and all that. So it's going to be a really important country. And commodity is not the highest one, right?

So if agriculture and timber and stuff like that is way more important, for now, at least. And then, yeah, and then the other countries like Namibia and Rwanda, I think there will be a trade, right? But again, the US and China is also putting a lot of money actually on the table to those countries, and especially in the DRC and others.

So I don't know what they have to offer at the moment. And to offer strategic partnerships to get those commodities, something I don't think those countries will do. I mean, there needs to be investment, and there needs to be development, and there needs to be a lot of things related to that.

It could be also investing in actually capacity building for smelters in Rwanda, for example, right? Or to, and I think one part which could be, which could make sense, would be, but we're not a leader anymore, but we were in terms of energy and green energy systems, right, to develop more energy. Because we see in Indonesia, the biggest problems in terms of environmental issues is not so much the mining sites itself. I mean, this is really bad, but it's not the biggest problem. Biggest problem is that for the smelting of nickel, you need a lot of energy, obviously, and those energy are all coal plants. So they're building coal plants, and they deforested those areas to get the coal out of the ground, right?

And that's a problem. And that's going to be the same in Rwanda. It's going to be the same in Namibia. Namibia, perhaps not so much, but in other countries in Africa, also the DRC, that the energy systems to create those energy systems is the most and the biggest problem in terms of development of a country, basically, right? I mean, energy is the biggest, it's the first part. And if you do not have energy system and cheap energy, you can't develop economies.

So that's something we need to figure out how we can actually get renewable energy within that, and then it would make sense. And then it will be kind of the win-win. But if it's not the case, then I doubt that, yeah.

[Speaker 2]

It's really interesting. And also maybe, are there any section within the CRM Act that would, in your opinion, benefit from more detailed definitions or clarity to improve, let's say, implementation and also effectiveness?

[Speaker 1]

Yeah, I mean, the investment part in general, but also about the strategic partnership. So like, I mean, there will be links, and I'm not the biggest expert here, right? But there will be links to the gateway part and how to invest on foreign soil.

But all the things we've seen and all the money I know of which would be put on the table is not as much as we would need it, right? So the question of, will the European Bank for Reconstruction and Development be part of that, right? Will be the development banks within the countries like KfW in Germany, the

UK, it's different, I don't know the French one, I forgot the name, but stuff like that, right?

So the national development banks, will they actually invest in that as well? Who will invest that? Or will it be the European way?

And what do they want to invest in, right? So I think, in the end, what we understood from the commission, basically, is they have also only these three pages, right? So they have three pages basically saying, this is what is really important, but I can do that with just GPT, right?

That's not complicated, right? Something always nice, right? There's not really something concrete in, perhaps besides some commodities, but that's not really super complex, right?

But the question will be about the trades, about the trade they will create with that. And that's most likely behind the doors, right? And yeah, I mean, the person in charge of the European Commission really didn't tell us anything last two months, how they would look like, because I think, honestly, I'm not sure how they will finance it, and what they will focus on and what they have to offer.

And different countries want to get different things, right? So they want to, I think, sell more energy systems. But in some parts, it's weird that we get hydrogen for the European continent to decarbonize our steel, but in the end, Namibia, you know, what they're going to do with it, like, why not doing it there and stuff like that. There will be a lot of conversation. But again, I'm not the biggest expert when it comes to strategic partnerships in general, how they set up.

[Speaker 2]

No, it's, it's really great insight, and it will help me or so. And I will say like, in your opinion, what are the main environmental challenges or gap in the CRM Act current framework? And how do these affect its environmental sustainability goal, in your opinion?

[Speaker 1]

Yeah. So the gap is just the question between the habitat water framework and permitting concession. I think that's the biggest gap, how they're gonna, like how it's gonna be aligned. I think that's the biggest problem. And in general, it's the same with energy systems in Europe. So it will be trade offs. And we have to decide on those trade offs as a society and figure out which is what's more important, right?

Do we want to have? Do we want to get more resilience? Do we need diversity in terms of supply chains, mobility, energy, change, and stuff like that, all of that needs to be decided, then we have trade offs. And those trade offs need to be discussed on a democratic point of view. And that will mean that there will be impacts along the way. And also the mining will have a lot of impacts.

But I think it will be done more responsibly than probably in other countries, that might be the case. Nevertheless, that will also be as we've seen in Portugal, there will be corruption cases, there will be issues when it comes to union rights, when this is going to happen in the mining industry, no matter what rights, because it's a multi billion issue. And always where there's a lot of billions involved, there is always an issue when it comes to the rights of workers and labors in general, most mostly not always, obviously, but quite often.

And then also, we do have some countries in the European Union where actually, law enforcement is really weak, right? So Bulgaria, Romania, you know, that's not it's different than in other countries. And so there's a high potential of corruption in those countries. So I think this will come in place as well when it comes to environmental impact assessments. For example, I know a lot of environmental impact assessments, which have been done wrongly, which were corrupted in the first place and stuff like that will be an issue. Definitely, there's no question about that.

And then, and then yeah, will be trade offs. And so we have to decide what to find a way how we going to deal with those trade offs. So to the sides on the strategic project, for example, it's nice to decide on that.

But you need to figure out how we can actually have the social license to operate as it's called, or at least to have communities to decide on that. And if they don't want to have that, and we have to find a way to accept that. And from a legislative point of view, and that's going to be the trade offs, the same trade off with energy lines at the moment from the north to the south, it's the same with renewables, right?

So it's something we as a society have to decide, and it's going to be the same problem with mining, probably more because mining obviously is seen way worse than, than energy lines, but we do need mines. And, and that's something we have to figure out.

[Speaker 2]

And from your perspective, like, how effectively does the CRM initiative CRM act support the implementation and promotion of circularity principle in, in general?

[Speaker 1]

In general, not really, like, generally, not really well, because the problem is they see in within a circular economy approach, recycling is one of the nine R's, right? So you use, you know, and stuff like that. And that's not really in the heart.

So we discussed in the beginning that actually, that should be the flagship, the flagship should be circularity, because then you increase, obviously, your commodities, you increase your resilience, that's what companies do at the moment, right? I mean, it just makes sense, right? That the point of view from the commission is that there's another legislation on circularity.

And that's why it wasn't put in because, but I think that's the biggest gap. They shouldn't have done that. Because then it's really about primary commodities, and we really want to have secondary commodities involved. And therefore you need the product design and legislation at the moment, stuff like that, right? Circular economy action plan, they need to be put in together, and they didn't do that. They only did recycling, which didn't make sense for me in the beginning.

So the circular economy approach as a, as a, like, in general, is really weak, it's not really put there, it's really like they put it there in terms of naming, but it's actually only talking about recycling. And recycling is a good part of that. And it's important. And I don't think there's anything negative to say about that, besides that it's going to be difficult to get those recycling commodities. I mean, on the global market at the moment, probably the, it's the most commodity which is really difficult to get is, is, is circular, like a secondary aluminium, secondary steel, because everybody wants to have that because you have to pay less CO2 emission credits, right? So that's the point, right?

It's not like nobody, like everybody understands that recycling is important, right? But we do not understand why circular economy is important, right? So the recycling is a business case makes sense. But the product design of it's right. So why do we have things to throw away still and stuff like that is way, way, way, way bigger, we're losing a lot of commodities, because of our consumption. And we need to have less consumption in the end.

So we have to figure out a way how we can have less consumption, increased circular economy approaches. And then we create more resilience, right? And that's something we knew, I think, are way more advanced, which we can do compared to the US, right?

In the US, those conversations will be really difficult, right? Because consumption is different, it's different, it's different tiger in the US than it's here. But in Europe, they should do that and have done that better than they did at the moment.

[Speaker 2]

I have also seen that they were developing other legislation that were acting like complementary to it, like eco design, for example, that were supporting it. And but if I understood it, like in your opinion, like they will, they should have put more emphasis on other R I will say in within the nine R like, rethink or refuse to improve that circularity part in the CRM.

[Speaker 1]

I'm not so sure. So I thought that so I think that will be part of other legislation, right? I think it's not the it's not the heart of the circle of the of the CMA.

So it's rather about primary consumption and really about smelting. And so so exactly. So it's the circularity has to be has to be part of that. And they have to find a way future how to combat that. But there was not the focus for this for this act.

[Speaker 2]

Okay, so develop, let's say other legislation, aside of it, like the eco design, for example, but that will support as a CRM act on this aspect.

[Speaker 1]

Yeah, but they need to align other parts. So they need to coherent, like the coherency has to be bigger on that. But in general, the the critical raw materials in the future needs to change to a circular economy approach. So that needs to be the heart. So the the mining and stuff like at the moment might be important for the next 20, 30 years, we won't talk about mining that much as we do now, right? In 30 40 years, we will talk about circular economy, and how we can get those commodities back.

And that's what the companies invest in at the moment. And that's where the where they have a blind eye on the commission sometimes doesn't understand, in my point of view, where the where the companies are, what the companies

do, and they, for example, environmental and social risk is something they've done for a long time, even though the the the the, what's called the critical raw materials list doesn't have have environmental and social risks involved, which doesn't make sense. So the risk, like the risk, mitigation process, really, really weak, because they don't understand how companies work. A company can't look at social what separates it's I think, it's economic importance and supply risk, right?

So if you have economic importance and supply risk, and you would have rare earth there, but in the end, rare earth is a bad example. But let's say bauxite, bauxite is for aluminum, right? You have kind of a supply risk there, it's really important for for economic, but the problem is the risk related to bauxite is huge, right?

You have a lot of impact, because a lot of this comes from Guinea. So companies at the moment, we just try to get it from different countries than from Guinea, in some case, or try at least to get more circular, like secondary commodities. So again, the European Union needs to be aware what the what companies do and companies invest highly in circular economy approaches, and into secondary cars and stuff like that, even BMW, Volkswagen, they're putting billions and billions in that. And the commission not even putting that in there, in their act is it's not really smart. And yeah, it's a lost chance.

[Speaker 2]

Thank you very much for that insight. It's super interesting. And if we switch maybe more on the social part, like, in your opinion, what are the critical gaps you perceive in this CRMA approach towards social responsibility? And so what would you suggest to improve it?

[Speaker 1]

I would suggest to have a conversation with some some other civil society organization who are more more detailed on that. I mean, I'm aware of, of Fpic and I'm involved in Fpic for some parts. My main cause, cause or main point basically, is that from the from the human rights United Nations, that, you know, every, you know, human rights go ahead and head with environmental rights, right?

So you have to have clean, you have access to clean water and clean air. And so we can't, you can't separate environmental and social diligence as well as impacts, right? There are a lot of times we link together.



Nevertheless, there are a lot of specific parts when it comes to labor rights, union rights, when it comes to social acceptance, and stuff like that, as well as corruption. And so that civil society organization, specifically in Europe, and you can talk with Robin Roels, from from the raw materials coalition, I would suggest to have a conversation with them, because they know who to talk to. And there's, for example, the Natural Governance Resource Institute to really working on corruption and really, really understand what's there, what's happening there. So I think that's not really my cup of tea to be in detail on that.

[Speaker 2]

Okay. Really, really interesting inside, also I had the last question more in terms of governance. So what are your thoughts on the CRM Act governance framework, particularly the role of the European critical raw material boards in guiding the act objective? Are there areas within the government structure that needs, in your opinion, to be strengthened or adjust?

[Speaker 1]

That's a good question. Yeah. So the main problem with the critical raw materials act is that it was written really fast and it was done really fast. So we do not know how this will actually be implemented and what kind of problems that might create, right? So it's really hard for me to say at the moment, it's just been basically signed on to say what that will look like. Because I think from what I know from the government, at least where I'm based in, they don't really know how they're going to do that, right?

So they have to find a way. Also then they have to find lawmakers how to define that within Germany, for example, but also France, because you have different kind of mining codes, right? So the problem is also, which I was also surprised in, that from a legislation point of view, we do not have a common mining code, which makes sense, right?

But also creates problems because the different mining code and different permitting system within the countries, or even is the federal ministry, is Madrid accepting or not accepting, but giving kind of the green light for concessions, or it's actually the regions on that is different in each country. And that's a problem because then you have different kind of structures. That means also the boards will be then on a regional level or will be on the federal level.

And that can create also a lot of problems in terms of who's part of those boards, right? If that's a ministry, that's a different topic than you would have a

local regional agency, right? Because the oversight in the end needs to be kind of somehow federal, right?

Because you need to have an overview on what's strategic and where can we actually have those trade-off conversations. If you consider this at a regional level, it becomes complex because certain regions obviously have a vested interest in either having mining operations within their area or not having them at all. But it's not really looked into what other departments and other states have in line, right? And this is a bit complex. So they have to be involved, but I don't know how they're going to do that in terms of the mining code in Germany. I'm not really clear.

And also there will be some, at the moment they will change some of the mining codes in Europe because they understood that, I mean, I think our mining code is 80, 90 years old, right? And same in France and not as old, but also older and the other in Spain and Portugal. And like they also need to address now their mining codes to make them up to speed for the 21st century, right?

And they haven't done that yet. So I think there will be also conversations on that, which will reflect on the boards and who will be part of the boards, but I'm, I don't know, I really can't say, I really don't know anything about that, how they will create that. And then it's really about also the natural and the protected areas, because in that kind of Natura 2000 parts, you will have different kinds of boards, because again, the commission needs to be part of that. And I'm not sure how they're going to deal with that.

[Speaker 2]

So, so it's really interesting also to see that there are a lot of mystery about the implementation related to this act. And it's really difficult to, I would say, pre move what will happen. And thank you very much for your insight.

Is there maybe anything else you would like to add that we haven't covered yet?

[Speaker 1]

No, no, I'm fine. Let me know if you have any more questions in the future and happy to get in touch with you.

[Speaker 2]

Perfect. And maybe who else would you recommend I speak with to gain further perspective on this topic?

[Speaker 1]

I would, I would reach out to the raw materials coalition. There is a coordinator, Robin Roels, he's Belgian and just have a conversation with him. It depends on the topic you want to have, but you can perhaps have a question with him or have a conversation, or at least a coffee.

If you also close to Brussels to him, you can have a conversation with him to, to get more specific questions you would like to get answered. And then please talk to companies, obviously, as well. That would be great. And also, obviously other, it would be interesting to have your minds and the extractive industry involved, because they might have a different view.

[Speaker 2]

Yeah, perfect. Thank you very much, P7, for your time and also your great insight. It will really help me to progress with my research paper. And thank you very much for everything for this interview.

[Speaker 1]

No worries. Thank you so much and good luck with the thesis, right?

[Speaker 2]

Thank you very much and good luck with your next project. See you, P7, and have a nice day. Take care.

Bye-bye.

## Interview with P8

[Speaker 2]=Gauthier

[Speaker 1]=P8

[Speaker 2]

Perfect. So thank you P8 for your time and also to be willing to contribute to my research. So just before asking you to present yourself, I will tell you like what the interview is about and also why I'm doing it.

So I am a master's student in Belgium, in Louvain, and for my final year and also my master's thesis, I decided to focus on the European strategy for critical raw materials, more specifically as defined in the CRMA. And we focus more on the, let's say, environmental and also social sides. That's why I'm really trying to

interview a lot of different stakeholders to understand like different perspectives.

And also I would like to ensure you that this interview will be anonymous and also confidential, even if I know that it's maybe not necessary, but I prefer to mention it. And also can I maybe record just the voice like that I can re listen it later and just focus on you to take notes.

[Speaker 1]

Sure, no problem.

[Speaker 2]

Perfect. So could you briefly introduce yourself and explain me like your involvement with the CRMA?

[Speaker 1]

OK, sure. So I'm P8. I'm a research fellow on geoeconomics at an Independent think tank in Brussels.

So critical raw materials are not my single focus of expertise, I would say. I would not consider myself to be an expert in critical raw materials. There are other people more well placed on that.

But for a project on the overarching geoeconomic challenges of the Green New Deal, I have written a paper on the Critical Raw Materials Act. It was already defined before the Critical Raw Materials Act was published. And that is maybe my starting point, I would say. But apart from that, I'm also looking into the wider geoeconomic implications of the Green New Deal, of the green transition and so on, where critical raw materials always end up quite at the forefront.

[Speaker 2]

Thank you very much for that introduction. I also read your report and it was very interesting. And that's also how I reached to you. So I have a few questions for you. So first, to what extent do the actual outcomes of the CRM Act align with its intended strategic goals, would you say? And can you maybe comment a little bit about the objectives?

[Speaker 1]

So sorry, so like the eventual act and whether it lives up to its expectations, is that what you're asking for more?

[Speaker 2]

Yes, yes.

[Speaker 1]

Okay. I mean, yes and no, I would say. So it's the first of its kind, the Critical Raw Materials Act.

So in that way, it was a little bit for the Commission, as I understand, like building the plane while flying. At first, in the initial proposal from the European Commission, there was like 10% annual consumption for extraction and then 40% for annual consumption of processing and so on. But when it came through the trial logs, it seemed like not only the Parliament, but also the Council was more eager to put in more, let's say, by European clause than it.

So scale up the percentages. And this was, for example, the case for recycling, as I believe it was scaled up to 25% by 2030. But my main issue with it is, whereas the benchmarks are quite clear, the resources that come with it, especially the financial resources are not really apt.

You see that there is a lot of mention also about strategic projects. But it's very unclear as to how much these strategic projects will eventually contribute to this, to reaching these benchmarks that the European Commission says by itself. I'm also seeing to a certain extent, I would say in the same regard, a little bit of a mismatch between the DG Trade, which has set these benchmarks, and DG Grow, which aims to implement, especially on the local expansion of mining capacities and processing capacities.

So because it's and this was also clear in that the communication was actually drafted by DG Trade, whereas the regulation was eventually drafted by DG Grow. And I found that quite interesting, because it's not one DG really overseeing the file. It's really that they try to give this a like a whole of government approach or a whole of commission approach.

But in doing that, it's becoming very vague as to how it will be applied eventually. So, I mean, as it's always the case, I mean, the proof in the pudding is in the eating, because the act on itself, just like the Net Zero Industry Act, this is quite, I would say it sets benchmarks and it's quite prescriptive in that way, but it's not really prescriptive in how it will achieve these benchmarks itself. So that's a little bit what I believe is a little bit missing.

[Speaker 2]

So it's more like a vision instead of a strategy in that sense.

[Speaker 1]

That would be one way to put it or it's. Yeah, that's yeah.

[Speaker 2]

OK, it's really interesting. And in your opinion or in your opinion related to this CRMA, what are the principal geoeconomic challenges or trends associated with the EU CRM strategy?

[Speaker 1]

I mean, the challenges were also a little bit what I laid out in my paper. I mean, first one is the fact that the critical raw materials, that certain critical raw materials suffer from a high geographic concentration. So they can be found somewhere, but not equally all around the globe.

And in that regard, the European Union is relatively is not the most richest and as one would argue, in a way, quite poor on natural resources, especially compared to, for example, Africa or Latin America and certain and also Asia to a certain extent. So it tries to deal with this lack of own extraction capacities. What else?

There is also like because the fact that there is a high geographic concentration of critical raw materials, this gives quite a lot of leverage over the country that is actually holding these resources. Like for example, the main case and point of that, of course, is Indonesia using their export control mechanisms on raw nickel ore. We see a similar tendency, though, in a different application happening in Latin America with Chile, with its lithium strategy, which is not necessarily based on export controls, but the fact that they hold these vast lithium extraction capacities.

They managed, for example, to bargain like a dual pricing system with the European Union on lithium. So, I mean, it's kind of implicitly entrenched in this bilateral trading relationship that the European Union has via these mineral exporting countries. Another main thing is, of course, that these minerals often are inside the rocks that are part of either very conflictuous regions, like, for example, the east of Congo, of course, with the conflict with M23 happening over there. Also, there are many, I mean, for example, when it comes to neodymium, the second largest exporter after China is Myanmar, which is currently involved in a civil war itself. That's one point. So you have the issue of ongoing conflict.

And on the other hand, it's also these minerals are often found or to be found in regions that are populated by indigenous peoples who also are not too eager to give up their lands and their resources just for capital gains, so to say.

Oftentimes, it's also with a certain of animism and spiritism to the lands and the mountains. And if you blow these up, that has certain ritual consequences, so to say, or implications according to their belief system.

So that's also the main thing playing with it. That's not really, I would say, a geoeconomic challenge in itself, but it's creating certain problems not only with the European Union and its trade relationship with foreign countries, but also within the EU, because, for example, where the highest concentration of rare earth elements in the European Union is in the Sami land in the north of Scandinavia. That's another main point.

Another, maybe a third one, is that oftentimes what we now consider to be critical or strategic minerals were oftentimes byproducts of mining, meaning that there are certain resources where, like for example, the remains of an old copper mine can then be used as a lithium extracting capacity. But at the same time, this also means that when we want to explore new mines, they're not really infrastructurally linked with, for example, ports or trading hubs, creating their own issues in terms of logistics. So this is also in a way, at least rhetorically, what the Global Gateway, of course, proposes, that they want to link the Copper Belt in Africa through the Lobito Corridor with this port city in Angola.

But this is only one of many mines or untapped reserves that need to be looked into. And it's not only that, but also just the sheer scale that needs to be taken into account where, for certain strategic raw minerals, they need to be upscaled by a factor 50 by a few decades. So it's not going to be an easy task either way.

And then maybe to conclude, of course, there's China, which not only holds vast extraction capacities for rare earth elements, but actually is the main processing country of our critical raw material processing country of the entire world, holding, I'm not sure whether it's the majority, but it's at least the single biggest processing power in the world. It initially focused on this just because it was seeing processing as kind of low hanging fruit for its development in the 80s. But nowadays, of course, with the green transition and the likes, these critical raw materials have become more expensive.

And then Chinese markets responded to it accordingly by doubling down on these processing capacities and expansion of these processing capacities. And another thing within the China question, of course, is also that China is trying to not only leverage its export power on it, but also wants to leverage its pricing power on it through these trading hubs. There are certain not only mines where

the majority of graphite of the entire world or rare earth elements are being extracted, but also with certain Chinese trading hubs where the majority of these are being priced and sold on global markets, with China having very strong trading and price setting power.

In these regards, which it tries to leverage as well, not only as a way of reacting to certain geopolitical issues, like for our geoeconomic questions, like, for example, the ASML ban, which triggered the gallium and germanium exports, but also in a way, and this was not included in my paper yet, but also in a way of bypassing the Western led financial system through their own pricing and not only pricing, but pricing these minerals in RMB or in other local currencies.

So that this way, this the financial infrastructure surrounding the extraction and processing and trading can be of the United States or US led dollar, the US dollar dominance over this realm can be bypassed through a Chinese commodity based financial alternative. So this is also something that I was starting to look into quite recently. So it's all quite new terrain for me as well.

So maybe you already know more about this, but it's definitely an interesting space to look into. So that's a little bit. I'm not sure. I probably missed a few things. It's a little bit what I what I'm seeing.

[Speaker 2]

It was a really interesting overview. And you mentioned also like Indonesia, like China and other like country with, I would say, rich country in terms of resources. And in the other sense, I was wondering, like, how the European strategy could impact those countries?

[Speaker 1]

And well, I mean, another important thing is the majority of critical raw materials that are entering the European market are not entering as raw materials. They're entering inside these products that are already being made. So what the main thing here is, is, of course, that the production that the that is being done with these process critical raw materials is already happening outside of Europe.

So creating a very strong market power, mainly for China as well. Which has as a much bigger stake in all of this in prices of critical of commodities and raw materials all over the world. And it's quite conscious of this as well.

So, I mean, I was just talking with a with with with an expert from Chile on this and they're saying, yeah, we look forward to seeing what the offer of the



Europeans might be when it comes to lithium and copper and the likes. But we know for a fact that, well, whatever the Europeans might come up with, the Chinese will just counter that with a higher price or with even more investments or a bigger package deal. So it's not only the US is not only fighting China for market share in critical raw materials, but also on the production, on the consumption side of these critical raw materials, but also the production side as well.

So this is creating a massive, let's say, scope. I wouldn't necessarily say scope for friction because it's it's just being acknowledging that the EU is not the main player in this market. It's China, it's first China, second China, third China.

And then also there is this push from the United States, which I missed in your in your previous question, of course, with with the Inflation Reduction Act, the United States becoming to the front of this issue as well, basically putting in subsidies for green manufacturing inside of the United States, as well as countries that the United States has as a trade agreement with, or at least a critical raw materials trade agreement with, essentially phasing China as well as Russia and North Korea out of the supply chains in the long run. So, I mean, in this area, this is really something where the EU is finding itself in between a rock and a hard place with on the one side, it wants to reduce its dependency on China, but on the other side, the United States doesn't necessarily want to reduce its dependency on China. It wants to eliminate the dependence on China.

So which is which is kind of a different intention that is being proposed over there across the pond. And this is creating, on the one hand, a certain scope for collaboration with the United States on critical raw materials, but also the United States is setting the agenda for the EU if they want to, if the European companies want to go in or want to want to join this U.S. led effort to to to scale down the proportion of of of China in this effort, thereby by creating even more friction with China for creating or setting the scene for a tit for tat situation.

[Speaker 2]

It's really interesting. And also like here we talked about like the European Union in general. But if we look at country more specific inside the European Union, like what role would you say do individual like EU member states play with within like the CRMA and or maybe is their national strategy could like impact the global EU strategy, in your opinion, because we are a lot talking about like geopolitics with other players, but less with Europe inside.

[Speaker 1]

Yeah. And to be honest, that's also when it comes to like this micro level, that's a less my field of expertise. But from what I gather from from talking to two people who are who know way more than I do on this topic, it's it's clear that the member states can play a more facilitating role when it comes to permitting within their borders, permitting for mines and for processing capacities.

So that's one thing that, of course, trade being a competence of the EU that lies perfectly within the hands of the EU itself, that the member states can play a role in it, facilitating it. But they don't set the tone or they don't set the agenda over there within this competency. So I would say it's mostly when it comes to permitting, permitting of new mining capacities.

I think I believe I heard that if the EU wants to reach its benchmarks by 2030, it would need to set up at least 10 to 12 new mines. Whereas in the in the last decades or so, they didn't even start 10 new mines. So it's really going to be an uphill task, not only for the for the for the Commission or the EU, but also for the member states to actually go along with it, because it's not like setting up a mine creates certain like electoral backlash as well already in these electoral precarious times that we're in.

So that's. That's also one reason why why member states are quite wary to come along with it, although they agree on the general outlines on it. And also when it comes to processing, these are not like the nicest jobs in the world as well, either.

If you want to set up such a processing factory, because it's usually also quite energy intensive and you're also battling certain foreign harsh foreign competition who are actually not really playing along the rules of the the more sustainable path. So, like, for example, in Indonesia, it's like most of the processing is happening with with coal energy being quite abundant and cheap in Indonesia, but quite and but just completely unthinkable within European countries. So that I would say also member states, not only in terms of permitting and facilitating, could also play a role in maybe co-financing these kind of projects to to scale up the processing and extraction capacities. But they bring along many issues with them as well, as I just said.

[Speaker 2]

No, that's a really great insight and also perspective and maybe more in terms of potential structure and collaboration. I had like, yeah, I had a few questions

about that and I think that you talked about it or so in your article. So the first one was about like more like green OPEC for CRM.

And I was considering I was wondering, like, considering the CRMA, do you believe it could, let's say, prompt the establishment of a green OPEC for CRM and what could be the impact of it on the European strategy?

[Speaker 1]

Yeah, so I mean, this this idea of a green OPEC is mostly being led by the the extracting countries who see this as a kind of bargaining chip. But at the same time, if we've been really honest about it, it's like it's it's completely different than it is with with fossil fuels or especially with petroleum oil. There is a there is a like all of these critical raw materials, all are markets on themselves with their own pricing capacities and with and for certain countries, like, for example, if you are a lithium exporting country, but you don't hold nickel, you actually and you want to climb the supply chain or move up the supply chain, you actually are it's in your interest to also have a low price for nickel if you are exporting and lithium. So in a way that that creates all sort of systemic or architectural frictions that I think would prevent any new green OPEC kind of scenario in the future, even though it carries very strong rhetorical or narrative heft to talk about in these terms on these minerals.

Then there's also, of course, I wouldn't necessarily call it counterweight, but just like this idea of a critical raw materials club that is being suggested by the European Commission, as well as by the US. This was also, to me, quite vague in the beginning, because at first it was more talking about it as a kind of buyers club where they can get like cheaper contracts and negotiating as a critical raw materials club via the exporting countries. But then it evolved more and also after when I published the paper into the idea that this critical raw materials club would embed not only the critical raw materials produce and consuming countries, but also the producing countries.

So it would be like one big house bringing all the countries together. But as of right now, this hasn't materialized yet. There is already this US initiative, like the Mineral Security Partnership, if I'm not mistaken.

But this is also quite intentional. It doesn't really have its own powers. As I understand it, and I'm reading between the lines, it really seems that the EU wants to have a more multilateral kind of, or at least a plurilateral kind of setting for this.

So it becomes a really like a global club, whereas the US sees this all being part of a great power competition and then building an opposing containing block regarding China, basically. So there's, I think this is where the majority of the friction lies, because if you look at all of these intentions and white papers and memoranda of understanding that are currently on their way, they really carry so little real power. It's quite descriptive and saying, oh, we want to work together and it's like, we want to work together on critical materials.

Yeah, but what do you want to do? I mean, same can be said about this memorandum of understanding that has been signed between the EU and Chile. It's, I mean, and now I'm quoting this Chilean expert that I was in talks with last week.

It's nice writing, but it doesn't really carry any financial or legal or, how do you say, any legal or any enforceable heft. So that this is creating certain, not only, I wouldn't necessarily call it friction, but also, I mean, a certain lack of results that I have a feeling that everyone is waiting on. Not only the raw materials importing countries, but also the exporting countries are also being left quite in limbo on this and not being very, very beneficial for either party in it.

[Speaker 2]

And so here, we were talking about Chile and also the EU partnership and considering the existing structure and outcome of partnership within the framework of the CRMA, do you maybe identify specific gaps in a way like it's written in the CRMA Act or something that can, that will be an additional value for those kind of partnership?

[Speaker 1]

I mean, what I see lacking is just putting the EU putting its money where its mouth is. And this is the case in the Chile MOU, but this would be even more the case for the partnerships that it's signing or negotiating with African countries who are really in dire need of investments, but not only investments, but also there is a massive gap when it comes to tech transfer and IP, which is an area where the EU is much stronger in, but it also doesn't want to give up this comparative advantage.

So I think this is a gap that needs to be kept in mind and also addressed in the future, this tech transfer gap, because it's, I mean, looking at mining nowadays, it's quite a technology intensive sector. And if you just don't have the technology, you're not really doing it well. You really end up in this artisanal

mining project, which bring all of these other sustainability and problems along with it.

[Speaker 2]

And so another kind of, I mean, I call it structural collaboration, but maybe it's not the exact like word, but I was wondering, like with BRICS nations in general. So we talked about, like China, we quickly talked about Indonesia. I think that's Indonesia is BRICS plus, not sure at 100%, but I think.

So what role do you think that this specific, I don't know what to call it, like structure, like yeah, BRICS union, like this specific union will play like a role and can impact like the strategy of the EU about that, but in a global way, like not country specific, like really the BRICS in general.

[Speaker 1]

I mean, I'm not really, how should I put it? I don't necessarily think that this BRICS grouping is institutionally capable of coming up with something of an alternative to whatever the EU is offering, but China is. And when you look at the intentions of these BRICS countries, and when it comes to critical raw materials, it's really China leading the way and not only China leading the way, but also carrying the most heft in these discussions when it comes to critical raw materials.

As I, I mean, it wasn't me who found this out, but there is this great quote by Enver Hoxha from this dictator from Albania, who was good friends with Mao, and he was standing on stage with Mao. You know the quote where he said, look at us Albanians and Chinese representing a quarter of the population. I mean, it's the same with the BRICS country, where it's, when you look at the GDP of these countries, it's for three quarters coming from China.

Also, when it comes to processing capacities for critical raw materials, same deal, same thing. When it comes to extraction, not always the case, but especially it is the case for rare earth elements and the likes. So what I do think that China can do within the BRICS groupings when it comes to critical raw materials is mainly with this processing capacity, this trading capacity, and facilitating trades in local currencies.

So I'm just out of the top of my head, like for example, trading Indonesian nickel with China, not necessarily through international markets, through dollars, but by exchanging Chinese RMB with Indonesian rupiah. So in that way, having a more bilateral financial monetary agreement. And I do see there is a certain scope for this as well, because these BRICS countries are actually, they're not

necessarily on board on everything that China is proposing, but offering a way outside of this strong Western net financial, so to say, matrix is quite appealing for many countries that are currently within BRICS.

Not saying that this will be successful, but this is something that will be continuously explored over the coming years.

[Speaker 2]

Thank you for that really good insight. Yes, I was really curious about BRICS because like six months ago, for example, there was a lot of news about it. And also like from like a geoeconomic standpoint, like what would you say are the importance of the specific list of CRMA for like global supply chain dynamics and also trade negotiation and European strategy? Like what's the importance of the specific list?

[Speaker 1]

You mean the European list?

[Speaker 2]

Yes.

[Speaker 1]

Yeah. I mean, it's, well, I mean, like for example, up until now, the European Commission only came up with this critical raw material list or like a notion of critical raw materials. And now the European Commission came up with this strategic raw materials notion, which I believe is quite a positive change because this, sorry, what was I, I just received an email and I lost my train of thought.

Oh yeah, the lists. And this is offering, like I would say, a starting point for further policies in this realm. Like for example, these benchmarks that are being set out specifically for strategic raw materials, which give it a more focused approach for specific materials linked to the degree and digital transition.

So, that's good. Whether it will have like a strong global impact, to be honest, I'm not really seeing that right now, but I might be mistaken on it. It's not really what you say is strategic.

It's about what you do with these lists and with these minerals that you highlight. I mean, it's a little bit when you're studying for an exam, it's good sometimes to mark some of the important bits, but then you still need to memorize it. It's a little bit the same with these strategic raw minerals.

I mean, it's good to highlight them, but it all depends on what you're actually going to do with it. And right now, they took the approach of embedding them in this benchmark approach and just putting more emphasis on extraction and processing of these. But as of right now, I don't really believe or I'm not seeing, I might be mistaken in it, and it's having very strong impacts on supply chains or of governments. It's just that governments are more aware of the strategic impact of these.

[Speaker 2]

So, yes, I was like curious about that specific impact. And another point I was curious about is like the strategic stocks implementation. So to know like maybe like what challenges, opportunities and risks do you foresee with those kind of implementation of stocks? I don't know if it can really have specific impact related with CRM.

[Speaker 1]

Well, one of the things with many critical raw materials is that they're actually quite cheap. So if you import a whole lot of it, it doesn't necessarily reflect any big impact on your export figures. It's not going to be financially devastating to start a stockpile or start stockpiling certain critical raw materials, especially when prices are lower, which might sometimes be the case.

Like, for example, the United States is doing with its petroleum strategic stock. So I think that might be a good idea. The only thing that are major risks that you might see in here is that if one country starts stockpiling mineral, other countries are going to do the same thing because they fear.

And it creates a kind of tit for tat or let's say more of a prisoner's dilemma where everyone is trying to take their share. So making the global supply, like creating certain artificial bottlenecks in the global supply by doing so. So that I would see might be a risk.

And it's also, it creates a zero-sum game in global supply and might eventually have the impact of stronger weaponization of these. So it might create a certain geopolitical backlash by doing so. Strategic stockpiles are easy to implement, I would say, or easy to go along with.

If you're creating a strategic stockpile for, in anticipation of a natural disaster or something like that. But what we're talking about here is really about the risk of weaponization by countries. And in a way, what you're doing by stockpiling minerals, you're actually giving even more leverage by the time, at least at the time of stockpiling to the extracting and exporting countries to weaponize their

supply. So that's a hypothetical situation or scenario that needs to be taken into account as well.

[Speaker 2]

That's really interesting. And like, I was maybe wondering or so like, so you are talking about like weaponizing as a supply, like, or like can country address those kind of specific, like by weaponizing, I understood like export restriction, for example, or other incentives like that. So how can like a country or like the European Union in general, like avoid that?

Because with their actual strategy, with the CRMA, they show that they want to, they don't want big dependence with China. So can you manage that?

[Speaker 1]

I mean, I think what the largest emphasis is being put on diversification and diversification of supply. But when the major problem that I would see with this diversification of supply is that China is in any other country that you would like to go aside from China, China is already having large sway in these extraction and processing capacities in these countries as well. So in these countries as well.

So you might be diversifying, so to say, by the numbers from China, but you're not really in quality diversifying from China. So you get what I mean? So you're diversifying in terms of quantity from China, and you're importing less than 65% of annual consumption for said mineral from China.

But at the same time, you're maybe increasing imports from countries where most of the mines are being held by Chinese companies.

[Speaker 2]

Yeah, I get it. It's like, for example, if China is a strong presence in Bolivia, let's say, and that we want to have with them. So it's like, we just change the name of the country, but at the end, that's the same result.

[Speaker 1]

Yeah. And that's the same thing we're seeing with this whole Frenchuring agenda, and especially with Chinese companies selling a plant inside Vietnam and Mexico, and thereby bypassing the tariffs and being put in place on Chinese export or imports.

[Speaker 2]



That's super interesting. And I was also wondering, so here we talked a lot about CRM in general, but what do you think would be the impact of the EU strategy for more conflict materials, and also maybe other materials that are not like CRM, but that still exist, I would say. What could be the impact of this CRM on those kinds of materials, in your opinion?

[Speaker 1]

What do you mean by other materials that are not CRMs?

[Speaker 2]

Let's say gold. Gold is not a CRM, but what could be the impact on it? Because we are really right now focusing on this CRM.

[Speaker 1]

Well, how should I put it? As of right now, the biggest atrocities when it comes to mining, these still happen in mines that are not mining CRMs, but they're mainly in gold mines, gold and diamond mines, especially in Africa. So maybe one hypothetical would be that there would be more investments in CRM mines, thereby creating stronger standards or at least more awareness on mining and on environmental and sustainability standards when it comes to mining, and thereby also having an influence on other kinds of mines.

Another thing is that actually most of the critical raw materials, or let's say most of the strategic raw materials, which have certain applications for the agreement or digital transition, do not end up being used for these technologies. And for example, this is the case for cobalt, where the single biggest application of cobalt is not in electric vehicle batteries, but it's just in cell phone batteries or in the computer batteries, which hold the bigger market share. So in that way, the materials that are being used, also when it comes to steel production, which oftentimes have green applications as well, we might need to think about a certain substitution for these materials.

So we can direct the strategic raw materials more towards the green transition and less towards the steel industry. So I mean, this greening of steel and other industries kind of needs to be taken into account from one single perspective, as well as for the strategic raw materials, because we cannot just look at strategic raw materials as if they are only used in green energy applications. They're used in a variety of applications, which all have their impact on the general outline of our economy.

[Speaker 2]

That's really, really insightful. And I had like two quick last question. First one was about like drawing from CRM strategies of other key players. So we talked about USA, we talked about China. What lesson or like what elements, I would say, the EU could look at to enhance their own strategy?

[Speaker 1]

I think that it's, most of it is about strategic integration. Because what we looked at in the Critical Raw Materials Act, it was, oh, look at this problem that we have with critical raw materials. And then a different group was asking themselves, oh, look at this issue we have with the import dependence on green technologies.

And this ended up in the Net Zero Industry Act. But in a way, the Net Zero Industry Act, as well as the Critical Raw Materials Act, should be fully integrated into one strategy or one vision at least. And this is really something that we really find in China, where they really have this value chain approach to critical raw materials and not necessarily, there was never a Critical Raw Materials Act in China.

It was just the idea of more mining and the idea of more processing and the idea of integrating all of this in one overarching value chain. So it's mostly about value chain integration, I would say, that leads to the most of success. Because if you don't necessarily want to mine all of the resources that you own, you really want to have a secure supply and a secure manufacturing basis so you can actually do something with these. So this is really something that needs to be taken into mind when looking at the other strategies.

[Speaker 2]

And related to that, because you mentioned that you knew or saw about a green deal and other kind of strategy related to CRMA, I was wondering, in your opinion, how CRMA was really matching with other strategy, in your opinion, if it's combined well with other like Net Zero Act, for example, or other kind of legislation?

[Speaker 1]

I mean, there is a bit of mention to each other, but it's really, I mean, the benchmarks are just assembled by different sets of people. So I would say that there is just a lack of cohesion in this. Yeah, mainly that there's a little bit of lack of cohesion there. There's, of course, cross-referencing, but it doesn't necessarily go beyond the cross-referencing and embedding this all into one strategic approach.

[Speaker 2]

I understand. And so you would say that it's also like maybe a point to look at, like to improve those specific collaboration, like a little bit like China did, not with a CRM Act, but by touching with the value chain of it.

[Speaker 1]

Sorry, could you repeat the question?

[Speaker 2]

Oh, yeah, yeah, no worry. So my question was, based on what you sent me just earlier on, you would say that they will maybe need to have a better cross-referencing and collaboration between all the legislation to make it really like, to have that value from it.

[Speaker 1]

Yeah, that's right, absolutely.

[Speaker 2]

Perfect. So here, I was wondering if maybe there is anything else you would like to add that we haven't covered and that you think that will be useful for my thesis in general?

[Speaker 1]

Um, no, I think we covered it most. I would be very interested to read your thesis if it's ready.

[Speaker 2]

Yes, for sure, no worries. Like once I finish it, I will send it to you and like that you could also see about it. And I was also wondering if maybe you would recommend me to speak with someone in particular to gain a further insight or perspective on this specific topic?

[Speaker 1]

Um, I mean, there is this Chilean guy that I met last week, and I can just like give you his contact details. And then also maybe this, there was, did you already discuss this with Tobias from the ECFR?

[Speaker 2]

I talked to Tobias, but for us from the WWF.

[Speaker 1]

Oh no, that's another one. He mostly works on quite similar things. So there will be quite a lot of repetition when, if you could speak to him.

These are the first two that come to mind. And also there's TNE. I'm not sure whether you know transport and environment.

[Speaker 2]

I heard about that.

[Speaker 1]

They, um, maybe not necessarily to speak to them, but they have quite interesting reports when it comes to the CRMA and its impact on the transport industry. So you can have a look at that.

[Speaker 2]

That would be amazing. Like for the Chilean guy and also Tobias and the just NGO that you mentioned, I think it was transportation, something, but yeah.

[Speaker 1]

Perfect.

[Speaker 2]

It will be amazing. And they're so like, thank you P8 for your time. And there's so all those really interesting insight and perspective.

I will need to re listen it to really grasp everything, but thank you very much. And once my work will be finished for sure, I will, uh, I will send it to you. So thank you very much, P8 about, uh, about it and for your time.

[Speaker 1]

No worries. What are you studying exactly? Because I, as I understand, you're not studying international relations. It's mostly on economics, right?

[Speaker 2]

Yes. So I'm doing a double master degree in business engineering and they're so like international management, but I was really interested about like the energy topic in general and also like the critical raw materials. And I'm really curious about a lot of different things like geopolitics and different fields. So that's why I wanted to cover. So that's perspective within the thesis, because I think like geopolitics, geoeconomics play a big roles related to those kinds of strategy. I would say.

[Speaker 1]

That's very interesting. And anyways, best of luck with, uh, with the rest of your degree.

[Speaker 2]

Thank you very much, P8 and have a nice day. And also thank you for the recommendation.

[Speaker 1]

That's good. If you would just like send one more email so I can flag it and link it to the further contact details.

[Speaker 2]

For sure. I am doing it now. So thank you very much and have a nice day.

Ciao, P8.

[Speaker 1]

Have a nice day. Bye.

[Speaker 2]

Thanks.

## Interview with P9

[Speaker 2]= Gauthier

[Speaker 1]= P9

[Speaker 2]

Yeah, it's a very French name, but thank you very much P9 for your time and also to be willing to contribute to my research. Before asking you to present yourself, I will first, let's say, put the context around this specific interview. So my name is Gauthier, I am 22 years old and I am a final year master's student in Louvain, in Belgium.

And so I am doing my thesis about the, let's say, analysing of the EU strategy for CRM, critical raw materials, and more specifically as defined in the CRM Act. And with a focus on the environmental and social aspect of it. So I'm really trying to interview a lot of different stakeholders who have various perspectives.

And that's why I'm also interviewing you today with your expertise. And I can also ensure you that everything that will be said during this interview will be anonymous and confidential. And also, like, can I maybe record your voice for me just to focus on the conversation and release it later on?

[Speaker 1]

Absolutely. I have no confidentiality, it wouldn't be a problem because everything I had to say, I said to Peter Handley and Nicola Beer's office. I had plenty to say, especially about the process and about exploration. How did you settle on asking me, can I ask?

[Speaker 2]

Sorry?

[Speaker 1]

Why did you ask me to contribute, can I ask?

[Speaker 2]

Yes, yes. So because I was looking for, like, an expert more in the exploration phase. And so I looked at different companies, at different sources, and that's where I found your name. And I was also impressed after that by looking more at your LinkedIn with your, like, all your experiences. And it was quite impressive. So I felt that it would be a good fit to really contribute on the more exploration opinion, because I've already asked more to, for example, director of a Company that promotes the metals and minerals mining industry or a political advisor for a EU institution, or I will have an interview with an another EU institution, for example. But in terms of exploration, I felt that you could be a good expert on it, with your broad experience and on this specific topic.

[Speaker 1]

Okay, that's fine. No worries. Happy to chat.

[Speaker 2]

Sorry?

[Speaker 1]

I'm happy to chat. No, no, no, no, no problem.

[Speaker 2]

Perfect. So maybe could you, like, briefly introduce yourself and also, like, explain me your involvement with critical raw materials and towards also the CRMA?

[Speaker 1]

Yeah, so I am, I've been an exploration geologist since graduating from university. I graduated Glasgow University, and I worked in mineral exploration my entire working life. So I started in 1991, as a full time employee, and I worked part time during holidays for a mineral exploration company while I was studying.

Initially, most of my work has been in the EU, UK, Ireland and Africa, across the continent in Africa, focused on base metals and gold, primarily. In the last 10 years, I've done a lot more in copper. And since around 2016, quite a vast amount in copper, cobalt, nickel, lithium and rare earths.

But my main focus is in generating projects. So I generate exploration projects to transact with major mining companies or junior explorers or financial groups. So you could say that I attract inward investment in mineral exploration.

That's my speciality. And I also run a founder and founding director, owner of Exploration Company, which provides exploration services for the main exploration marketplace, which would be in Canada and Australia, to a much lesser extent in London. But the majority of exploration funding and the majority of exploration junior companies, stock market companies, financial groups, resource focus groups, and the major mining companies are all based in those jurisdictions, really, Canada and Australia.

So we've always operated for those kind of guys in a plus three, minus three time zone around Dublin, London time, managing projects for them. But a major part of our business now is project generation. We pass the project on and then we work on it.

We also do government tenders for the national exploration programs or national surveys, really only in Ireland, done very little anywhere else. Done some in Morocco, and done some tenders for a few things in Guinea and various other places, but not been very successful because they're dominated by very large, almost semi-national providers like BRGM in France. And I forget the one in Finland now, but those groups are very big, very organised, and they were probably involved in a lot of the discussions around the part of the CRMA, which was putting the onus on governments and government surveys to provide exploration data to, in inverted commas, encourage exploration and encourage exploration companies to come.

And therein lay the greatest flaw that I saw in the Act, which was it won't encourage anybody. It won't encourage Australian and Canadian companies to

deploy their exploration dollars, because what they want is an exploration licence, and it is virtually impossible to get an exploration licence in the time frames required by these companies, these countries in Europe, in the 27, I think it is now, minus the UK, and 27 countries, there only are four that produce, that have a decent system, you know.

So the Nordic countries, Sweden, Finland, Ireland, and believe it or not, the Czech Republic are probably the best that we have come across. To a lesser extent, Spain is very good once you actually get your licence, but you could wait a year, 18 months, three years, four years, five years to get the exploration licence. Bulgaria, you have a flood of companies leaving, looking for projects elsewhere in Europe because they have a four-year delay.

It's because there's no incentive on them to produce the exploration licence, and this was the core of my discussion with Peter Handley and Nicola Beer's office, that you don't have that in there. You have these two years and one year, you know, 12 months, 24 months for extractive industries and processing to get the permitting in place, move environmental to the site, we'll come back to that, but to get the planning and the permitting and the stuff all done, 24 months is great, you know, it's really what it needs. But there's only a very limited number of projects in Europe that are going to qualify as strategic projects to make use of that part of the CRMA.

To have a true pipeline of exploration projects, only one in 10,000 will make it to a mine. Only one in a thousand will, you know, result in a really good discovery. So you need to have a lot of exploration to create strategic projects.

And I can tell you from better experience, working with Canadians and Australians, they get their licence by going online. They go online, they put in the coordinates, they put in their credit card details, and if that area is open, they have that licence just like that.

[Speaker 2]

Directly?

[Speaker 1]

Yeah.

[Speaker 2]

Without any assessment or anything, just by putting geolocalisation details and no impact test or anything?

[Speaker 1]

No, they will then have to adhere to the expenditure commitments and pay your



fees on a regular basis. If you don't, we'll take the licence off you. But that's how it's done.

In Ireland, we make an application, we usually get the offer within three months, which is very good. It's the same in the Czech Republic, you get it within three months. If you then meet the demands of the offer letter, which is to pay a certain amount of fees and provide your work plan and so on, it then goes to public advertisement for input from the public.

And based on the feedback there, the government issues a licence. So you may look at six months to get it. So instead of swiping your card and having your licence overnight, six months in Ireland, it's much the same, a little quicker in Finland and Sweden.

They are very, very busy because the land is very tight because their systems work. Ireland is quite tight because the systems work. Beyond that, I have applications still running in Spain that would have been submitted in 2019.

I can't bring finance into exploration unless I have security of tenure. It's the first thing they look for. Do you have the licence?

Canadians and Australians will not entertain that nonsense. They want to see the licence. They want to see an ability to perform exploration work.

That's the next stage. It is workable in amongst the Natura 2000 system, which is extremely overbearing on mineral exploration because mineral exploration is essentially non-invasive. It's walking on the ground, two or three people walking on the ground, taking small bags of soil, mapping, looking at rocks, maybe deploying a geophysical system, which is temporary, surface-based, seen and gone.

Even the drilling. The drilling is 5-8cm diameter core taken down to various depths with a tractor-mounted rig. You're looking at something never any bigger than a small fuel tanker going onto the land and then coming off.

The hoops that we have to jump through now, we have to have in Ireland, we have to have the water that we take from the stream needs to be filtered, it needs to be treated to UV or by UV and put down the whole sterile. Meanwhile, you're working in fields that are full of cow shit, sheep shit, slurry, fertiliser that has been rained on and taken down into the very same water table through fractures and cracks in the rock. Our drill hole, we have to add another \$10-20 per metre to the client to sterilise the hole.

We have noise levels that have to be managed, whereas the farmers driving the tractors and the combine harvesters don't have to meet those. We feel very picked upon. It makes our exploration slow, it makes it expensive, it makes it in some cases entirely unmanageable.

When you're on a Natura 2000, an NHA isn't too bad. You can work away, but once you're on an SAC, you can virtually forget it in Ireland anyway, they just prevent you doing anything. As you may know or may not know, a lot of the SACs are in very scenic areas, mountainous areas, and those are the very geological formations that are attractive from a mineral exploration point of view.

That's right across Europe. In Ireland, 40%, and the land is under Natura 2000, 40%. The west coast is dominantly NHAs, SACs, SPAs, which slow exploration.

A lot of the gold exploration, a lot of the rare earths and lithium and stuff would be in those areas. It doesn't make us a very attractive jurisdiction. Between the jigs and the rails, it's just really difficult to do that, and that's standard across Europe. It's a functional thing that you can do.

[Speaker 2]

That's really interesting. You touched a few points, and I have a few questions later on about it, notably on Natura 2000. Before that, I was also wondering, in your opinion, to what extent does the actual outcome of the CRMA align with its intended strategic goals?

Are you satisfied with it? Can you maybe comment on its feasibility of its objective?

[Speaker 1]

It depends on what they intended to do. They didn't approach this from a let's encourage mineral exploration point of view, because they didn't talk to any mineral exploration companies.

[Speaker 2]

No, they didn't talk with exploration?

[Speaker 1]

We weren't consulted in Ireland. The first we heard of it was in March 2023, when it was published. We said, why weren't we asking?

Your government was told. Our minister is a Green minister, so he had no intention of telling us to make submissions. Otherwise, we would have made all these submissions.

It fails entirely on the exploration side by saying you guys in government have to provide an exploration license or a refusal for the exploration license within a three-month or a six-month period, all 27 countries. I can't imagine for a moment that France wants that. France is impossible.

I know some Australian guys that bought a project in the central massif, and it's been an absolute nightmare for them. I don't think there's any intention Gauthier. I really don't.

I don't think there's any intention to encourage mineral exploration and mining. I think the intention is to look like they've done something.

[Speaker 2]

I've talked with some mining companies and they were telling me that exploration is really crucial for them. As you have mentioned, you have a few projects out of thousands that are successful. So yeah, I thought that they would have consulted you. It's very good to know that.

[Speaker 1]

Nothing. They've done nothing. I just don't believe. I don't. I think it's a very disingenuous act, but that's politics. I think the intent is to acquire their mineral resources from former colonies, which is, frankly, disgusting. To say that the European Union, which consumes 95% of its...95% comes from foreign jurisdictions, I don't think that'll change much, because nobody in Europe is going to say, let's have a mine next to us. There'll be protests. That permitting procedure is great for 24 months, but it doesn't apply to the environmental site, so you can't get around that Natura 2000.

I live in Galway in the west of Ireland. We have a bridge proposed down the road to relieve traffic congestion. It's been objected to and remains unbuilt after 22 years based on environmental objections.

The same with a road, a main road that runs out here, goes through Natura 2000, and the brain boxes it designed and planned in Natura 2000 brought the permits or brought the polygons right up to the road margin, so now you can't straighten the road. That road kills one person every month, so you have 12 dead people every year. It hasn't been straightened for the last 20 years.

That's 280 people that are dead because the NHAs and the SPAs can't be tampered with, so I can't see how any exploration project will ever... Very few exploration projects will make it into the pipeline because the exploration permitting doesn't exist. Very few strategic projects will make it to mining because the environmental objections and political objections, which work on a

three to five year time frame for politicians to stay in power and keep their mitts on levers of power and whatever else it is that they get from that.

You start to gather I'm very cynical about politicians. I think it just won't happen. You won't see mines opening, except in those jurisdictions I mentioned, Sweden, Finland, Ireland, Spain, and that environmental and political risk is huge for majors.

The situation in Serbia with Rio Tinto Zinc and the Jadar deposit was a disaster for the continent of Europe from my point of view. Yeah, let's go and spend \$8 billion exploring, putting a resource together, getting the processing right so we can bring this world-class deposit into production, and at the last minute the government under pressure removes the permit. \$8 billion gone, reputation tarnished for Serbia.

Everybody looks at Serbia and says, oh, it's Europe. It's the same situation. You go to Spain and you see the Savannas lithium project, lithium quarry in the north of the country there.

Almost exactly the same situation, 20 years of exploration, 20 years of expenditure, corporate expenditure, public outreach, and no, you're not doing it. Now, I think they spent \$800 million on that, you know, but it's still a lot of money. It's a lot of money.

Unless you're printing it like America, Britain, and Europe, it's a lot of money. And that kind of stuff sticks, it sticks, and it makes Europe unattractive. I don't think there's any way of changing that because there's no will, I don't think.

[Speaker 2]

Okay, it's really interesting. So, if I understood well, so like, in terms of explorations, there are differences between each national countries also, like in terms of willingness, like you mentioned Sweden, I think that they have a lot of possibility in terms of mining and they were pushing on it.

[Speaker 1]

Absolutely.

[Speaker 2]

And that's why it's maybe more attractive that a country like, I don't know, Belgium, I don't know if they have anything in Belgium, but...

[Speaker 1]

Belgium's too small. I mean, it's your population density, man, it has the same

prospectivity for zinc that Ireland has. I mean, the prospective horizon in Ireland is called Waulsortian limestone from Waulsortian and in Belgium.

So you have lead and zinc mines there, historical lead and zinc mines, but from a permitting point of view, you're just not going to get a mine open there. I can't, you know, the public are not accepting of mines. They're not even accepting of exploration. So, I would not bring an investor. I would not bring an investor to anywhere other than those four countries. And those four countries have a very limited, limited free ground for exploration. The big countries that have a lot of prospectivity, France, France has mighty geology. Can you imagine trying to do exploration and mining in France?

[Speaker 2]

I mean, I saw that they had some mining projects.

[Speaker 1]

You should look up Apollo, Apollo Minerals from Australia and the nonsense that they have gone through down in the southwest of the country there. I know the investors from Dubai that put money into that and they're extremely angry. It's just dead in the water. And it'll never fix itself because you need a system that functions. There's no system worse than that. The CRMA does not put any onus on the companies, on the authorities. And they can simply fall back on the environmental stuff. And the protesters and the objectors can fall back on the environmental. And that's it, tied up for 20 years. I advised them just to cut your losses and leave. That's what I said. I said, you're only going to spend more money. And that's what they're going to do. I said, take your money and go and explore in Pakistan. Go and explore in Argentina. Go and explore somewhere where you're welcome and where your money is welcome. Because this is a business investment. They're not doing it for anything other than eventually making money.

[Speaker 2]

And what do you think about their new requirements? I mean, I've seen in the CRMA that as a member state, I have the requirement to develop a national exploration program for minerals. And maybe what could be the impact of it or challenge or opportunities related to that?

[Speaker 1]

I call that fantasy football exploration because it's not going to encourage investors.

[Speaker 2]

Really?

[Speaker 1]

National governments are not going to spend money exploring. They can do up a nice database and they can see we have prospectivity for rare earth elements here. We have lithium here, like in Ireland. You have lithium, you have gold, you have rare earths, you have zinc, you have copper. That's all well known. And there's a great database there.

There's the "TELUS". The "TELUS" is airborne magnetics, EM, radiometrics, stream of sediments, soil, rock, botanical samples. It's brilliant. But it's no use if you can't ultimately develop your mine. But Ireland is different because you can get your exploration permit and you can move it forward. When it comes to actually opening the mine, that's where the difficulty is going to be.

The last mine that was permitted and opened was in 1991, a zinc mine. And the benefits of zinc to the economy were well known. And that was pre-Celtic Tiger. Now what you have is a population of entitled Europeans who don't want mines anywhere near them. They say, away and get the stuff for my mobile phone and my computers. Go and get it in Africa.

Whilst at the same time saying, oh, we don't support artisanal miners and we don't support the raping and pillaging of countries for the resources. So you guys need to behave in a certain way when you're down there. Meanwhile, China and Russia are running around giving suitcases of money, bulldozing forests away, poisoning rivers, doing whatever they want to extract the resources and sending them back to their countries.

So you're hamstrung on that side. From my point of view, I just don't have any faith that the Critical Minerals Act is anything other than political window dressing to say we've done our bit here. We've tried to encourage each member state to have a database and a prospectivity map that shows companies where to come.

But it misses the point that the companies have to have certain conditions. They have to have an ability to get an expiration permit in a way to ensure that their expiration will not be hampered by all kinds of silly things that make no sense in the real world.

Some licences in County Limerick and Ireland, you have to have planning permission. A discharge to groundwater permit, which is for permanent structures, not for drill rigs, but it's been adopted. And we spent two years

bringing them to sites to show them until eventually they relented and changed the policies for us, for one of our clients.

And then from the point of view of actually when it comes to time to opening a mine, how long is that going to take, lads? Me, I'm saying expiration 10 years, permitting and getting it open, minimum 15 years. You're looking at a 25 year process.

25 years. Most people are in positions, decision makers in the C-suite of these companies are in their forties. So they're going to be retired by the time the mine comes into production or has any impact on their share price.

[Speaker 2]

That's really interesting because that's a great perspective that I didn't have when I read it as an external of these specific sectors. And what would you say are the biggest risks for the step of exploration? So if I understood well, the permitting point is really crucial. Then there is maybe the financing of projects for exploration that can be crucial.

[Speaker 1]

The financing is absolutely critical. You can't explore without money. That's a fundamental.

So you have to lay the conditions that encourage exploration financing. So that's not going to happen if you can't get a permit in a reasonable timeframe. Let's call it between three and six months.

That's reasonable. You then have to be assured that you will be able to explore without interference. I'm not talking about reasonable interference. There has to be regulation, which is over the top. But if you can't even get on the land to do your exploration, what's the point? Or if your costs to jump through all the hoops make it twice the price of exploring somewhere else, why would you go?

But the ultimate kicker is how long is it going to take once we have, if we discover something, if it's a one in a thousand chance, and then we need to prove up the resource, which is orders of magnitude greater expenditure. You're running into the tens, 50 million, to prove the resource up. Is it worth spending that money?

Because you're then going to have to go through the permitting and planning process, which can be stymied by not including the environmental aspects of permitting. Me, I just tell clients to go somewhere else.

[Speaker 2]

Somewhere like outside Europe, right?

[Speaker 1]

Yeah, go to South America, go to Asia, go to Africa. I think that's the way things are moving. The Indian Ocean, the circumference of the Indian Ocean, East Central Africa, through Pakistan, India, out into China, down into East Asia, to Australia.

That arc is where the majority of exploration is going to be done, because it's proximal to the main productions, global production centers in China, India, Pakistan, Bangladesh, and the money is there as well. The actual cash sits in the Middle East. All the rest of it is just printed money that doesn't exist.

I think that's the arc that I'm taking investors to now. I work very closely with some guys in Dubai and Pakistan at the moment. I'm excited to do that because I may actually get to see something discovered in production before I retire.

I'm 58, so I'll be looking to retire in the next seven years. I think the timeframes in those countries are five to 10 years exploration, discovery, permitting, production, which is the way it should be. Because there's no point. People need the lithium now, they need the cobalt, they need the copper, they need the gold. It needs now. I think Europe is over-regulated. It's really not interested.

[Speaker 2]

That's a really interesting perspective. Do you see other gaps within that regulation for extraction industry? For now, it's really permitting. If I understood, it's a big gap that there is no mining with maybe limited processor procedure or national unification to reduce it. Maybe financing afterwards, but do you see other gaps that could help the sector to accomplish the strategy of the EU in terms of critical raw materials?

[Speaker 1]

Yeah, I think on the mining end, all that environmental Natura 2000 permitting needs to be done in the same 24-month period that the actual planning and permitting is done. It has to be the same. If you want things to go into production in a timely manner, that needs to be included.

Because it's strikingly obvious when you look at the CRMA. It's specific. I looked at it with Dundee Precious Metals from Bulgaria who were also on a lot of calls with the EU guys saying, this is just a joke.

What's the point? People can just object to it and object to it and object to it. Then you end up with this 20 years. I go back to Savannah and RTZ. 20 years and between a billion and eight billion spent on projects that never come to fruition. How are you going to meet the goals that they have set out in the



CRMA? 20 years, 25 years, you're already bust. You're a way out in 2060. But no mine's open. No mine's open. No. I don't think a single mine will open in Europe as a result of this because people are going to use the environmental side to block it.

And there only are a handful of things sitting around there that could possibly make it as a strategic project. There's no noticeable increase in exploration because there's no process to encourage exploration. They can talk about the government stuff, but that's just fantasy stuff. As I said, it's just providing free data. That's fine. Someday we'll be paid for that. BRGM and the guys in Finland and Sweden and maybe my own might make a bit of money out of that. But I'm not going to an investor. Because I have to maintain my own credibility. I only introduce companies and investors to projects that I think have legs. And it can have as many geological legs as it wants in Europe, but it's never going to make it to a mine.

[Speaker 2]

It's really interesting. And so let's say we are talking about Natura 2000. So are you not afraid that if, let's say, we reduce time for permitting or we make it easier for exploration and also through mining for those specific zones, that could have a big impact in terms of environment?

[Speaker 1]

No, because the footprints of these mines are tiny.

[Speaker 2]

What?

[Speaker 1]

The footprint. The area of the mine is tiny. And the mines can be screened off using trees and woods and so on. And the processing, it can all be done. It's done in Sweden. It's done in Finland. It's done in Canada. These are not filthy, environmentally destroyed countries. They're top-notch countries with top-notch environments.

But they choose to use their keyhole surgery to extract the resources that they need. But that requires the public to be aware and governments to be willing to stand up and say, no, the whole of the Western Ireland is an SAC or it's Natura 2000. But if you find something in it, your exploration is not going to damage the environment.

Exploration doesn't damage the environment. Thousands of people walk the place, tourists, farmers, sheep. The natural environment are damaging and

degrading that environment.

A geologist and his crew of one or two people are not causing any problems. A drill hole does not cause any problems. You need to do that work to identify a mineable economic resource.

Once you're there, then it's the job of pragmatic planners and regulators to make sure that that is done to industry standard that they do in Canada, that they do in Finland, that they do in Sweden. But what you get is you get people saying, oh, there's going to be cyanide pouring down the hill and the whole area is going to be mined. Connemara National Park is going to be mined. Yorkshire Dales is going to be mined. Nonsense. I mean, the UK shows a very pragmatic, you know, the last two mines that have been planned in the UK are both in national parks. So a gold mine in Loch Lomond and Trossachs National Park and a polyhalite mine in the Yorkshire National Park and in the Devon area in the Dartmoor National Park, there's lithium exploration ongoing.

[Speaker 2]

Okay, and so you would say that public perception, public awareness, it's sort of like a gap or an issue even for exploration phase, right?

[Speaker 1]

Oh, it's massive. It's been tapped into by environmentalists, you know, who are just anti-mining and anti-oil and anti-corporation and anti-everything, basically the old loony left that used to be predominant in the 80s, you know, the far left-wingers who hate everything and do nothing. They are generally now environmentalists because the environmental card is a great way to stop corporations doing anything, you know.

So they've changed their clothing, you know. They're no longer Marxists or no longer, you know, left-wingers. They are environmental parties, you know, and we can't do this because it will damage the environment.

And they just trumpet this stuff and they walk into the areas where people are doing exploration and show them pictures of opencast massive mines in Africa and say this is what they're going to do, which is paid nonsense because nobody in Europe gets permission for an opencast mine. They're all high-grade, low-tonnage, underground mines, which can be, you know, there's several of them come and go in Ireland over the generations that show exactly how it can be done. You know, they showcase environmental pieces.

The largest zinc mine in Europe is Navan in Ireland, which sits right in between two of the premier salmon fishing rivers, which has never been affected and

has been open since 1977. The mine actually sits on the edge of the town now. It's part of the town and the mine goes under the town, you know, and it's provided between 1,500 and 600 jobs for over one working generation.

You know, it's a perfect example of how these things can work in harmony, but nobody wants to see it. Nobody wants to hear about it because it's just no we're not having a mine here. So Europe will have to get its natural resources from other countries, really.

[Speaker 2]

And when you are, let's say, doing an exploration project, do you try to get the opinion of, for example, if it's outside Europe, like autochthons or local community during your process?

[Speaker 1]

Absolutely. It's the first thing we do. You know, the first people we go to are the landowners and then we will often have a community outreach. We'll talk to the local councillors, talk to the local TDs, MPs, whatever it is. And sometimes there's an obligation, like in the Czech Republic, there's actually an obligation to hold a public meeting with the community, not with the entire country. So those are all done.

And in general, exploration companies, quality exploration companies, do their job very well. And the people get on with their business and they understand. Ireland's very good at that because they understand, you know, the landowners for zinc go, you know, here come these lads again, you know, drilling holes and saying they're going to find something, but they never do.

But you often don't get a chance, Gauthier. You often don't even get a chance, because when your application is published, what goes on now is you have these groups that stimulate objection letters, you know, numbering anything between 5,000 and 10,000, and they clog up the system. So your license is waiting, you know, going through this process for a year or two years. So they actually prevent the exploration.

[Speaker 2]

And once you get your permit, like the job is done, or it can also be like blocked and by external...

[Speaker 1]

It can be blocked, yeah. When the license comes to be renewed, I mean, I had a group, a Canadian group that spent \$1.5 million on exploration. And what we ended up with, after six years, the license had to be renewed.

And when it was published for renewal, we had 7,500 objections and the minister refused to attend to it. That was five years ago. That license is still not renewed.

[Speaker 2]

Okay, okay.

[Speaker 1]

And the company has gone. The company has long gone and said they will never set foot in Ireland or Europe again.

[Speaker 2]

Wow.

[Speaker 1]

And that message is all over Vancouver.

[Speaker 2]

Which like, yeah, like it doesn't promote investment. Yeah.

[Speaker 1]

No, that's where two thirds of global investment for mineral exploration comes from. So Vancouver thinks Ireland is a basket case and thinks Europe is just exactly the same.

[Speaker 2]

And I was also wondering, so maybe if it doesn't work in Europe, like they try to settle like collaboration initiative, like a strategic partnership or like a club within, like critical raw materials. Do you think that those initiatives, like strategic partnership can be positive for the exploration industry?

[Speaker 1]

A strategic partnership with who Gauthier?

[Speaker 2]

Like, is it right to have a more strategic partnership with, for example, Chile, with other countries, like to be less dependent of China? And so I was wondering if like those partnership can be positive for the kind of company you are working for and also the exploration industry?

[Speaker 1]

Absolutely. I think strategic partnerships with resource based economies is extremely, is extremely important. But these are not just critical minerals, critical raw materials.

These, a lot of these are strategic. Well, the likes of rare earth elements, for example, these are critical elements, strategic needs for defence. There's half a tonne, half a tonne, 500 kilograms of rare earth go into each fighter jet. 300,000 kilograms, that's three tonnes into a frigate and 6,000 kilograms into a nuclear submarine. Where are you going to get, Europe doesn't produce any rare earths.

[Speaker 2]

No.

[Speaker 1]

None, not a single one. And that's great if you, yeah, let's do a deal with Canada. Let's do a deal with Australia, friendly guys.

There are hundreds of thousands and there are tens of thousands of kilometres away. That's not a strategic resource. A strategic resource is somewhere in France, somewhere in Germany, somewhere in the UK, where you can actually get your rare earths and put them into the European NATO defence systems.

You know, you're not going to get them, Vladimir Putin had loads of them. China has had them always, 79% or 80% of the rare earths, all the processes. I have two projects in the UK that, you know, I could attract people into and I'm focusing on the UK because I can actually do a deal with a landowner and the different Ministry of Defence is actually interested because they're short circuiting all that, all that environmental stuff.

As long as you're a reputable company and you do it the way the council, because the council's very good at these things. The council and the EPA know exactly what they want to do and how it should be done not to damage the environment. And I'm a UK citizen, I'm a Scotsman, I don't want to destroy the environment either.

But I want to see a mine opened up that's shielded by trees and is contributing to the strategic needs of my country. You know, but Europe doesn't have that. The European politicians don't have that attitude. They don't have that. They'll sign meaningless stuff in Canada, for example, or Australia and then try to ship those things. Now when Russia attacks us in two years' time, because they will, they will attack us. When that's attacked, all that shipping is just going to, just look at 1941 to 1945 and the convoys going back and forward. That's what you're looking at, a repeat of that stuff. You don't have your resources in place. And the timeframes are so far out. It's just, it's just mental. It's just, it's absolutely insane. But that's politicians for you. And I don't care anymore. I

used to care. I really did used to care. I just work for companies now that want to make money. And if I end up doing a deal or they end up doing a deal with a project with China, then that's fair game. That's the free market. That's the free market, you know?

[Speaker 2]

Yeah. So I understand also that there is like a disconnection between like politicians and or like what's written and also like the real world application.

[Speaker 1]

Real world stuff. But their real world is about getting reelected on a five year timeframe. That's what they want to do. And so they know that the public won't tolerate a mine. So all of that, but at the same time, they don't want to be blamed for not getting the strategic and critical raw materials in place for Europe and be unprepared when the world order disintegrates, which is what is happening. We're in that process now of a disintegration of world order.

And Europe's going to be on its own very soon, you know? Where are the materials coming from? Where are those materials?

[Speaker 2]

Okay.

[Speaker 1]

Maybe that's their thinking. Maybe their thinking is that the national governments will do a great job and say that there's rare earths here and there's lithium there so that when war does break out, they can just say, well, tough. I don't care what you say, public. We're taking it out. But that's not very well prepared. To me, that work should be getting done now and you should be getting other companies to fund it. It's not how politics works. I'm not a politician, as you can hear. I have no time for politics anymore. I used to love it, but I just have zero time for it now.

[Speaker 2]

No, no, no. I understand it. But it's also very interesting because I didn't realize that when I read the act, because I thought that they were really not pro mining, but that they were pushing it. That's what I thought when I read it. So it's very interesting to see the real world application of it.

[Speaker 1]

It doesn't work for mineral exploration companies and mining companies.

[Speaker 2]

Okay. That's really great to know. And I was also wondering, last question will

be about the CRM list. I was wondering if the fact when you add elements on it, like what could be the impact in fact of CRM list on exploration company or if there is any?

[Speaker 1]

I think everything that is relatively critical is on it. I mean, I wouldn't, I mean, as long as I mean, copper, nickel, zinc, zinc's not on it, I don't think.

[Speaker 2]

I don't remember it. So I don't think so.

[Speaker 1]

No, no. Copper's on it and nickel's on it. You know, rare earths are there, lithium is there.

[Speaker 2]

Aluminium, manganese.

[Speaker 1]

I think, yeah, but I mean, that list is just a list. It's how do you get them out in the shortest period of time by encouraging inward investment and you're not attractive.

[Speaker 2]

Okay. Very, very interesting. And maybe is there anything else you would like to add and that we haven't covered and that you think that could be useful for my work?

[Speaker 1]

No, I think I've said everything there. As an explorationist, that's my, I am a mineral exploration company who is, you know, networked and engaged with the global mineral exploration community and marketplace. And that is my feedback, you know, and I do not bring them to Europe at the moment, other than those four countries.

I will bring them there because I can see a pathway, but I tell them, I tell them, look at RTZ, look at Savannah. I can advise you on exploration and I can get exploration done in these countries, but I cannot tell you what's going to happen if you find something. Whereas I have this project down in Tanzania, I have this project down in Sierra Leone.

You'll get it done down there. I'm not inviting you down there to rape and pillage the country and get involved in bribery and all that kind of stuff. You do your

job, same as we do our job down there, with respect, you know, and with a view of providing a resource for those countries.

You'll get your exploration done down there and you've got a chance of finding something. And once you've actually got a resource, you may get it into production. But those places, we'll take the license off you unless you give us, you know, 100 million, you know, that kind of stuff.

It's all there. You saw it in Pakistan with Reco Dick. It took them 20 years to get that deal that Barrick has now. But now that that deal is done and there's a way of dealing with big discoveries, because these are massive discoveries. These are, you know, water, you know, what is it, 250 billion, 275 billion dollar value for Reco Dick, a copper gold deposit. There's probably another four or five of those in Pakistan. But the government and the local state wants part of it. Damn right as well. Damn right they want part of it, you know.

So people are rushing there just now. All the big major mining companies that have been involved in a project generation, target generation for the government and introduced them to all the major mining companies and they all want to go. They all want to go.

And at the back of that will come the juniors looking for the smaller scraps, you know, because they're not going to get a big massive copper porphyry thing. But that's what's going on in Pakistan. That's what's going on in places in Africa. That is not going on in Europe.

[Speaker 2]

So even in the country where they push, like Sweden, for example, like the risk is still higher than in countries like Tanzania or Pakistan. And even with public perception, right, because you don't have, you have less issues with that in developing countries like Tanzania or like that.

[Speaker 1]

No, I wouldn't say that about Sweden, Finland. Sweden and Finland are resource economies. They understand the benefits of mining to their community, to their country and to their community.

So the public are very supportive of it. And it's done very well because it's managed, it's permitted, it's regulated really well. So if Europe's looking for an example of how to do it, Sweden and Finland are the places to go and look at, you know.

But I cannot, for the life of me, see Germany and France, who basically run Europe, saying, yeah, let's do that in France, because in France they would



have tractors and slurry and burning tires all around the country to prevent it. Because the public don't want it. The public just want the metals to come from somewhere they can't see.

[Speaker 2]

Yeah, that's super interesting. Thank you, P9, for your time, for your insight. It will really help me for my thesis.

And I was wondering also if you would like recommend someone I could speak with it to get further insight, if you have someone in mind.

[Speaker 1]

In which sector?

[Speaker 2]

Like exploration or mining or like someone that you think that could be useful for my thesis?

[Speaker 1]

Let me have a think about that. I'll drop you a line. If you don't hear from me in a few days, just remind me. Yes. I'll have a think about that.

[Speaker 2]

Okay. For sure. And thank you very much for those good insight. It will really help me and also for your time. Thank you very much.

[Speaker 1]

You're very welcome. I hope your MSc goes well and it provides you with some kind of insight as to the metal exploration.

[Speaker 2]

Perfect. And I hope your future projects will go well and that you will still find a lot of things between those seven years.

[Speaker 1]

Yeah, that's great. Okay. Thanks very much.

[Speaker 2]

See you. Have a nice day.

[Speaker 1]

Bye-bye.

## Interview with P10

[Speaker 2]= Gauthier

[Speaker 1]= P10

[Speaker 2]

Oh, great, great. So maybe before asking you to present yourself, I will give you a little bit of context about this interview. So my name is Gauthier, I'm 22 years old and I'm from Belgium.

So for my master's thesis, I decided to focus on the analysis of the European Union's strategy on critical raw materials, more specifically as defined on the CRMA. And we focus more on the social and environmental side. So in fact, I'm really trying to interview a lot of different stakeholders to have a lot of different perspectives for me to analyze it.

I can also ensure you that everything that will be said during this meeting will be anonymous and confidential. It's really for my information. And maybe can I also record just the voice of the interview like that I can really send it later on?

[Speaker 1]

No problem, no problem.

[Speaker 2]

Perfect. Thank you very much. So maybe could you briefly introduce yourself and explain me like your involvement with critical raw materials and also maybe your link with the CRMA?

[Speaker 1]

Sure. Do you want to start recording or?

[Speaker 2]

Oh, yes, yes. I'm good, I'm good.

[Speaker 1]

Okay, so my name is P10. I'm working at an investment company, that's a European industrial group. We have one of our pillars sector is mining and metallurgy.

So we are running the x largest ferroalloy smelter, which is located in Poland. But we are also running mining projects and metallurgical project in East Africa, namely in x, where we are developing tin metal and tantalum bearing alloys. So I've been in the mining sector for the last almost 20 years now and working mostly in Europe, mostly in Europe, in Central Europe, in Poland, in Czech

Republic, but also in Balkans, in Bosnia and Herzegovina, in Serbia, in Kosovo and Macedonia.

I've been working on different projects, exploration projects, mining projects. I've been involved with distribution of the mining equipment for the underground mines and open pit mines. So I have quite a broad experience.

But currently at this investment company, I'm in charge also of the policy analysis and cooperation with the Brussels institutions, with the US institutions and UK institutions in terms of the support for the critical development of the critical minerals projects. So that's my experience, I would say for the last three years, working very closely with different institutions in Europe, but also, for example, in Africa, with European Union delegation, with US delegations and with others who are developing this sector. I have to say that this focus on the stable development and sustainable development of the critical raw materials somehow was put into the light and has had a bigger attention during COVID times, when we can observe the obstructions of the supply chains and the lack of deliveries to European Union.

So this is, I would say, I think the only positive consequence of COVID pandemic that we actually realized that we need to start working on this topic a little bit more intense than it used to be in the past.

[Speaker 2]

That's really interesting and you seem a lot to have a very insightful experience about that specific topic. And maybe, so could you tell me to what extent does the actual outcome of the CRMA align with its intended, I would say, strategic goals and also maybe like a sustainable goal? And are you satisfied with it? Or like, can you comment also on the feasibility of its goal?

[Speaker 1]

So first of all, I think the Critical Raw Materials Act is definitely a good thing, yes. It's the first this type of legislation which is trying to address the challenges related to the development of the critical raw materials sector, yes. And it was kind of an answer of the US Inflation Reduction Act.

But still, it's a good step. It's definitely a good step that we started working on it and I'm very happy that the European Parliament finally adopted it. But it's a very initial framework, yes.

So many people who are actually from the industry are now wondering how practically it's going to work like. And because now we have European

elections, so I assume only at the end of this year, European Parliament and European Commission will start implementing those regulations. For example, developing the Critical Raw Materials Board will be then able to evaluate the projects.

So there are a couple of questions. First of all, Critical Raw Materials Act is not talking directly about the financing of the projects, about the incentives for financing of the projects. That's the biggest mistake.

Because developing any kind of mining project or metallurgical project in Europe is many times more expensive than doing it in Asia or in any other countries because of the regulations, because of the cost of the labor, because especially because of the energy, which is a critical factor, yes. So Critical Raw Materials Act is saying that some of the projects will get this label of being strategic and then they will receive a support from European Investment Bank or from any other institutions. But it's not clearly presenting how it's going to look like, yes, and what kind of support will be given, what kind of financing will be available.

And that's critical in terms of if you are talking about the industrial project, especially exploration or mining or processing, you need to know exactly how your financing is going to look because the mining projects are developed for a certain period of time. Every mine has such so-called life of the mine cycle, yes, so we know that this deposit will last, whatever, for 10 years, 15 years, 5 years, and you need to project your financing already at the very initial stage, yes. And based on the Act, we don't know how it's going to be.

There are no very direct guidelines, so it's very difficult to assess how it's going to support the sector. Additionally, what's being questioned by some of my colleagues, because we as this investment company, we are not running any mining project in Europe, yes, we have metallurgical facilities, that's a little bit different. But my colleagues have mining projects in Spain, in Austria, in Germany, and they very much welcome the adoption of the Act, because the Act is also saying that there will be support for faster procedure for permitting.

We're talking environmental permits, any other permits, but practically the permitting is the responsibility of the state, yes, so every EU member state has a different procedure for those permits and different timeline for those permits, different payments for those permits, and there is no practical link between this legislation and the local national legislations, yes, so this is also very unclear.

How can Act talk that, for example, issuing of the environmental permit can't have to be done in, whatever, three months' time or six months' time when some of the companies are waiting in some of the countries for three or four years, yeah, so this is very unclear, and I think those gaps, they need to be addressed, and based on my discussion with different DGs in European Commission, with DG Grow, DG Trade, and other people, they are aware of it, but they wanted to create this Act as a kind of a framework, which will be later developed and to which the further details will be added at the later stages, so that was the goal, but these gaps are existing there, yes, so it's fantastic to have this Act as a start, but it's definitely not enough, not enough.

[Speaker 2]

So, if I understand well, for now it's more like a vision instead of a strategy, or like there are still some gaps when we translate the theory into the practice with like, for example, finance or like some more detail about strategic project or countries?

[Speaker 1]

Also, yes, and also what's very important is the, well, we personally have a look at the list of the commodities and minerals which were labeled as critical and strategic, yes, so again, we think that there is a place for improvement, for example, some of the metals which are definitely critical and which were recognized already as critical by US, by Canada, by Australia, by Japan, by UK, they are not on the EU list, yes, which is surprising, and when we ask why, we couldn't find any right solution or explanation, because the methodology of calculation for the first list was very unclear for us, yes, so, for example, aluminum made up into the list in the last moment based on the amendment, but tin, tin metal, which is critical everywhere in the world, is not critical in EU, yes, so we do not know why, because somehow the methodology of assuming what is critical, what is not, was not taking into consideration any future geopolitical impacts and geographic questions, yes, so this is also missing, this is also missing, I guess it will be improved, because the Act has this option to update this list either every two years on the true ad hoc procedure, but still, the gaps are there, yes.

[Speaker 2]

Yes, that's really interesting, and also I think that tin is a conflict materials, right, so it was quite surprising also at that point, and maybe, do you see other potential challenges that might arise during the CRM implementation?

[Speaker 1]

No, I think the most is the clash between this Act and the national regulations, that's the first and most important thing, and the second thing is we are hoping that when the Critical Raw Materials Board will be established, they will develop whatever protocols or operation manuals for the way to establish the financing of these projects, financing of the project, yes, because that's very important.

[Speaker 2]

So, here we are also talking about financing and maybe also investment, like what are the criterias that your investment company will think is looking when they are doing that kind of investment or when they invest in a project, and what kind of, let's say, support from the EU would they like to have, I would say, for a more like project related with CRM?

[Speaker 1]

Well, for the investment company, for example, at my investment company we have two strategies, one is called Green "Festi", second is called Green Tin, we are within the Green Tin strategy, we are developing tin assets in Europe and in Africa, and we do hope that our part of our strategy, part of our investment projects will be labeled as strategic, so then we can apply for preferential financing for those projects. Now, because we do not know today what kind of financing will be available, that's very difficult to assess, so we are talking to everybody, we are talking to the potential US partners, UK funds, Japanese funds, because there is definitely an interest and an investment appetite to finance those projects, so the question is how EU will position itself on this scale, because if we are talking about the critical minerals, for example, some of them are not available in Europe, some of them are available, for example, in Africa, so there is a need to use the opportunities which the CRM is giving also for the projects outside of Europe, but under the assumption that the offtake and the delivery will be to Europe, yes, because if you are, you have this link, so I think the act is very fresh, and these are all the questions that needs to be developed in details and present to the business sector, yes, because the act was somehow a joint effort of different political groups, different associations, but now it's dedicated not to the governments of countries, it's dedicated to the business sector, yes, and it's dedicated in order to keep the business sector in Europe, because of what happened for the last years, especially the very, very high energy prices and the gas prices, European industry is really broken, I have to say, and I can talk about the metallurgical sector, you have, maybe you know that many, many furnaces, many metallurgical units in France, in Spain, in

Central Europe, they all shut down operations within the last three years because of energy and because of lack of support, yes, so it's not only the question to provide the conditions for the minerals to be developed, but also to provide other conditions for those already existing companies, so not only for the new investment, but those who are already invested in Europe and which cannot basically survive in nowadays economy, because of the competition from China, because of the competition from India, China and outside, yes, that's very important and this thing is not very addressed in the act, yes, so that's also the kind of a questionable challenge.

[Speaker 2]

And do you think that this act makes investments in Europe, within Europe, interesting for a company like your investment company or does it change anything?

[Speaker 1]

Well, it's showing the willingness of the European Union institutions to support the investment, so definitely, yes, definitely, yes, not only for the investment company, but for any other family office or investment fund, so that's definitely a green light, because previously, the potential investor, if they were considering investment in the EU or for example, let's say Canada, yes, they would always choose Canada, although because the work on the cost of the labor is higher than in Europe, still the investment conditions are much easier than in Europe, so in Europe, having this act, that's a very, very good stimulation for the future investments, but again, depending how this act will be developed, what kind of details will be available for the investors, yes, it's a little bit too early to say, yeah.

[Speaker 2]

Okay, I see, I see, and do you perceive like maybe the factor of public awareness or public also perception, how does it enter into accounts for the CRM act to make it work and also maybe for your sector?

[Speaker 1]

I think the act needs to be introduced to the public, yes, because most of the people are not aware of it, it wasn't very much presented, I mean, it was presented in Brussels, it was presented to those who are very following very much what's going on in Brussels, but I talked to some of the mining companies, especially mining companies in smaller countries in Europe, still in Europe, and they were not aware, how can they use it, yes, what does it mean,

and it's, I think it's much, it's definitely needed to bring it to the public attention and also to implement this educational element, because don't get me wrong, but the citizens of many countries in the EU, they don't want to see mining operations in their country, they prefer to shut down all of the mines, so everybody wants to have parks, everybody wants to have a nice environmental green scenery, yes, but still you can do, nowadays you can do mines in a sustainable and eco-friendly way, but developing such mines is more expensive, again, than using, doing the classic mining, so this is, I would say, the closed circle, yes, you can have the industry, which is sustainable, which is some zero waste, which is green, but it costs, yes, and when you compare the cost of, that's a very important thing, which the Act is not addressing, the other EU regulations are trying to address that, when you compare the cost of the development, for example, of the metal in Europe, which should be green, which should be sustainable, which should fulfill all of the regulations, and then this price for this metal is benchmarked against London Metal Exchange, yes, so, for example, it's fixed, and then you have the same metal coming from other jurisdictions, either from China, or from Malaysia, or from Indonesia, or from China, and it's definitely not green, and it was much cheaper to produce, and still the price is the same, then the European industry has no chance to survive, yes, because, and we are trying to address the questions, there is a CBAM regulation, which is definitely, which was the attempt to address it, and it's not doing that, so this is a part of the bigger picture, yes, because it's not enough to create the conditions for, in Europe, to have this industry, based on the Act, but this industry needs to be competitive, and needs to be sustainable, and if you have a competition from countries, where production of the same stuff is much cheaper, and you have no ESG premium for producing a green metal, or green minerals, then it simply doesn't make any sense.

[Speaker 2]

No, that's really interesting, so you would say that the cost, or the price factor, is really, like, important for companies that buy those kind of materials, and so that's the point where the EU, or, like, regulation needs to work on, to make those kind of big regulation, like CRM Act, for example, or even, like, industry in Europe working, right, in a sustainable way.

[Speaker 1]

Yeah, totally.

[Speaker 2]



That's really interesting, and maybe more in terms of strategic partnership, what do you think about it, like, do you maybe see any gaps about that, because I think that there was a kind of partnership with an African country and the EU, and you are also in this African country, so it would be really interesting to know your opinion about that.

[Speaker 1]

No, that's very, very good that Europe is trying to sign those strategic partnerships. As far as I know, European Commission has signed with many countries already, with Namibia, with DRC, with Rwanda, with Colombia, many countries around the world, and it's very, very important, because that's the only way to provide any kind of a business connection between Europe and those countries, and at least try to provide the conditions for the offtake of the metals originating from those countries, yes. Those countries, they are very open for the knowledge transfer, for the experience transfer, and we've been doing that, for example, in Rwanda, we have established a smelting facility, and we did it, we started in 2018, we acquired the old metallurgical asset, which was completely destroyed, and when we first came to Rwanda, there were no metallurgists, yes, there were no furnace operators, there was no one who could work in that facility, so we have to train everybody, literally everybody, and today we have more than 120 Rwandans operating this asset, and all of the head of departments, production, maintenance, laboratory, these are all Rwandans running it right now, so there's a brilliant example of the knowledge transfer, yes, but in order for that knowledge transfer and for this business connection to be alive, Europe has to sign this agreement, and European Union has to provide different kind of supports, educational supports, educational programs, financial instruments that private investors can use that financial instruments in those countries, so that's all connected, yes, because you don't have many companies like our investment company, who will just go on their own and try to invest and try to do the business, the other companies, they prefer to at least have a part of their CAPEX finance through some kind of a grant or support coming from EU or from US, so that's typical, yes, and we are definitely late, because US and China has been doing that for many, many years before European Union, so I'm not sure if European Union will be lucky, I'm glad that they are trying and they are signing those agreements, and I think there is a brilliant team working at the DG INPA international partnerships, so these people are very, very in Brussels, very dedicated, very hardworking, and you should definitely talk to them as well, so they can give you an insight what's the view of European Commission about those external partnerships,

but for us, from the business perspective, this is very important and very critical, yes.

[Speaker 2]

And so you were telling me that your investment company entered, if I understood well, in Rwanda in 2018, so what does it change, what will it change right now that, for example, the EU signed a new deal with Rwanda, if you were already there before, what would change for you?

[Speaker 1]

Well, we do not know yet, I think it's too fresh, I cannot tell you right now, we are all expecting to see what kind of practical impact it will have.

[Speaker 1]

We'll have, yes, what kind of practical support, but I think it's a little bit too early. I know you can look at the example of Namibia. Namibia, the agreement with Namibia was signed, I believe, last year, winter, maybe February, March, something like that.

And as a consequence of this agreement, there is already infrastructure projects going on in Namibia for processing of lithium and some other minerals. I think the German investors are working on it. So it's a very nice example of how the business was following the signing of the agreement. Yes. Now, the agreement with DRC was signed as well. It was signed before Rwanda, a couple of months before Rwanda.

I don't know exactly when, I don't remember. You can check it. But again, I believe many French and Belgian companies and some of the Germans are now looking how to leverage on the fact that this cooperation between DRC and Brussels was signed. Yes. But I don't know the details. You can maybe check.

I think some of the French companies especially were interested, yes, because DRC, again, is a huge country. So you have a lot of US investments, Canada investments, European investments and especially China investment. So China is definitely dominant there.

So maybe this agreement between DRC and EU, maybe it will support a bigger presence of European companies there. But it's challenging to say today.

[Speaker 2]

No, it's really a good perspective. And it's true that it has been signed few, like one month ago, a few months ago with Rwanda. So I understand.

And you also talked to me like at the beginning of our meeting about like strategic project and its definition. So maybe how do you evaluate the current definition and procedure for strategic project within the Eastern Act? Are there specific areas you would like to improve or you think needs to be improved?

[Speaker 1]

Well, for us, one thing that we do not understand is, how to say, is that because the process of applying for the status of strategic is clear. It's well written. It's fine.

We are not sure what kind of criteria will be used when the Critical Raw Materials Board will be evaluating those applications. This is a little bit not clear for us. But I think, again, until the board is established, until they will set up the criteria and the modus operandi, so it's still quite fresh to discuss it. Yes. Hopefully, at the end of this year, we will know more. Yes. And then I could comment on that.

[Speaker 2]

1. No, it's good to know. And yes, it's also dependent on the country that will define or so what will be strategic or not. And maybe like about the certification scheme, what do you think about the system that is put in place? And so like, do you think that there is some risk or some challenge linked with it?

[Speaker 1]

But which certification scheme?

[Speaker 2]

Certification scheme to ensure that, for example, a project as much with the environmental and social standards.

[Speaker 1]

You mean CSRD directives and ESG reporting or this scheme?

[Speaker 2]

It's like, for example, like for a strategic project. So it's 24 months and there is also a part for the environmental impact assessments. And there is also like some certification. So for those projects that they need to be able to certify that they are like, yeah, that they match with the current norm.

[Speaker 1]

This is exactly what I was telling at the beginning, because this is what's in most of the EU countries, the competency of the national country competency. So it's the question of how it's going to be solved. Definitely all of those, regardless, exploration, mining or processing projects, they need to have this certification. They need to have environmental impact assessment. They need to have a closure report. That's the standard.

The problem is that in some of the countries in Europe, if even if you are preparing the application to get that certificate and to get, we call it a permit, actually, not a certificate, a permit. The process is very long and the process, because the process is so long, it can kill the projects. As I told you, some of the companies, if they did full application, they prepare everything and then they are waiting for three years, for example, because in some of the countries there are obligations for, how we call it in English, for social consultancies.

These social consultancies, they can last up to two years. So again, the project is being prolonged, prolonged, prolonged, prolonged, and eventually because of the market conditions or because of any other conditions, it might lose its economical sense. So that's quite risky.

This was the challenge that the Critical Raw Materials Act was trying to address, just to make sure that this period has to be within these 24 months. But we don't know yet how practically it's going to work like, because again, that's the competency of the national governments. So somehow the national legislation will need to be adjusted to the Act, or I don't know how countries are going to do that.

There are countries in which environmental impact assessment, the whole process can be finalized within 15 months, 12 months, and it's fine. But again, you have the countries in Europe when it's lasting definitely longer. So depending where your project is located, this is how you have to deal with it.

[Speaker 2]

Yes. So I guess maybe a country like Sweden will be more performant and a country, smaller countries that are not used to deal with this kind of activity. And yes, like, yeah, about that, I was really wondering like, if it makes the investments in some countries in the EU really attractive or not, even with all those new regulations, because for instance, if I don't mistake, for the 24 months of a strategic project, there is a part that will be like, that you can exclude for the environmental impact assessments. But the social part that you said that were so very important for the public acceptance is has to be done in

the 24 months, if I understood well. So I was wondering if it will not be so complicated about it.

[Speaker 1]

No, I don't think so. I mean, the decision of the investment, if you are considering investments, especially mining, the first thing is, which you're looking at is the jurisdictions of the country, there you want to put your projects in, because you have to take into consideration what kind of regulations are in that country, what kind of taxation system is in that country, what kind of energy prices are in this country, what kind of the labor costs are in this country, etc, etc. Yes, so the act is there, yes, but act is only one regulation, so it will not directly impact your decision-making process. Your decision-making process is regulated by the commodity.

Is there any good mineral deposit that you would like to develop? What is the cutoff grade and does it make economical sense to develop this deposit? Yes, act is kind of a supporting regulation only, but it will not, let's say, I don't think it will channel more investments into Europe, unfortunately.

Yes, you need to have many more conditions than the act. You need to have right energy price, you need to have a proper taxation, you need to have a grant support, financing support, etc, etc. So maybe the act in the future will generate a kind of a space for all those things to exist. But again, it's very early, an early stage and very too early to say, and to evolve it.

[Speaker 2]

That's really interesting. And you were also talking about, for example, the European Critical Raw Materials Board, and I was wondering what you think about, I know that it has not been yet put in place, but with what you have read about it and also you have heard about it, what do you think about the effectiveness of that governance framework? Do you think that some things could be improved or that they have too many responsibilities or that could be a problem for some of the projects in your industry?

[Speaker 1]

No, I think practically speaking, from the governance point of view, it's fine. It's okay. The structure, the proposed structure is fine. I'm pretty sure this board will nominate or develop some kind of advisory committees on environment or financing on other aspects, in order to be able to operate in a smooth way. So no, I think it's a good proposal.

[Speaker 2]

Okay, perfect. And also, what do you think are the main environmental challenges or gaps that could be related with that current proposition?

[Speaker 1]

Well, there are no environmental gaps to the proposition. The environmental gaps could be related to the proposed projects. Yes. So I think it's very important that every project that will try to apply to the board for the strategic status, that they will be very closely evaluated looking at their environmental impact. Yes, that's very important. But for an act, as an act, it's, again, it cannot have any much power over the environmental aspects because those are regulated by the national legislations, yes, not by the whole EU legislation. So, yeah.

[Speaker 2]

And so, do you think that, like, the fact that the national countries have, like, so here, in fact, if I understood well, like, the regulation has been put in place in terms of the European level, but now in terms of implementation, it will be, of course, like the commissions or the government board. But, like, if I understood well, like, the national countries, the national laws will have, like, a big impact on it, will be really important for the implementation and the success of those first steps. So, if I understand.

[Speaker 1]

There might be contradiction to this act. That's the problem, yeah. Because the act is talking about the environmental permits and environmental permits are regulated not by the EU framework, but by the national framework.

Yeah. So, this is why we don't know how it's going practically to work because the act is talking about it. But the question is how the national governments and national bodies will implement it. But no one knows. No one knows at this stage.

[Speaker 2]

And the fact that there is a lot of unknown about those new regulations, is it like a big risk for a company like yours?

[Speaker 1]

No, because the act is helpful. Yes, the act is proposing better solutions that are in the national legislations, faster and more efficient. So, for any kind of

investor, the act is definitely a good thing, not a risk. So, we do hope that the act will be respected and implemented at national level.

[Speaker 2]

Okay. So, it's a good first step anyway compared to what there is before. It's just like the unknown about like what is the scale of the positive impact it will bring. Really interesting. And maybe in terms of social aspects, would you see like any possible gaps with it?

[Speaker 1]

Well, not really. What could be improved is the part about building the awareness, about the need for sustainable mining in Europe and to keep the industry because this is somehow, I know we have this building this awareness and education are put, for example, into the UN Sustainable Development Goals, yes. But in the EU, you have many institutions or projects which are trying to work on it.

You have, for example, EIT raw materials and they have their educational part, yes. So, they are conducting many educational projects on mining, on exploration, trying to spread the knowledge in the EU countries, yes, but it's still at quite low level. So, but through this act, act is written well, yes.

So, you cannot, this is just the act, it's not going to be, the actual actions have to follow the act, yes. And again, that's the more competency of the national government. So, the question is how much EU money will be streamed into those educational projects, how much EU money will be streamed to build this social awareness and other things, yes.

And how much because, for example, we are now facing in Europe with the situation that we are shutting down our coal mines, yes, because we want to switch to the green energy sources and you still have this very, very important social aspect of shutting down those mines because you have many people employed in those coal mines, yes. So, now, you need to transfer those people either to the new mines, which will be developing green metals, for example, copper mines, lithium mines, tin mines, or you need to develop something new for them. So, but this is the, I would say, this is the, for the other legislations, for the legislations which are targeting the just transition projects, yes.

So, you have just transition fund in Europe. So, this legislation is trying to address those social aspects. Yes, the Critical Raw Materials Act is purely developed for, to create a platform for the right sustainable investment in the EU, in the mineral sector, yes.

[Speaker 2]

Yes, yes, I see. And I was also wondering about like, how this regulation has been, for example, like, welcomed in like, third party countries that are rich in resource, like, what's the impact that this European strategy could have on them?

[Speaker 1]

Well, the foreign investors, they are observing Europe, yes. So, I think I can tell you the example of Central and East Europe. There has been many investors coming from, for example, from Australia, or from Canada, and they were trying to develop mining projects here.

And very often they stopped because somehow the legislation complexity was stopping them to proceed. Yes, it was easier to do projects somewhere else. So, maybe the Act will create some kind of a better environment to encourage for investor, the outside EU investors to do more in Europe.

It might have, yes. But I think you should evaluate that maybe after four years of the Act implementations, see how many new foreign investments into the mining came into the EU. What were the directions from those investments?

Because Europe still has a lot of potential, mineralogical potential. But again, Europe is very expensive, yes, to do this project. So, that's questionable. But still, maybe there will be more new projects looking at what's going on, on the geopolitical scene. And we've been sourcing many metals, many commodities from Russia. Now, these are all under sanctions.

So, Russia is no longer a source of that. So, it means that we should try to develop our own, either in Europe or in the countries which signed the cooperation memorandum with us, such as Namibia, DRC, Brazil or Rwanda, yes. So, that would be the solution.

[Speaker 2]

And from your perspective, because here we talked a lot about, like, I would say more like mining aspect and industrial aspect. But what do you think about, like, how effectively does the CRM Act, like, let's say, support the implementation and promotion of a more like circularity principle? So, for example, reusing, refusing and also recycling?

[Speaker 1]

Well, it's written there. So, it's definitely a good thing. Yes, it's promoting those things.



And I do hope that if there will be financial instruments for the development of this metallurgical and processing projects, which can reprocess the materials, recycle the materials in order to extract those valuable elements, that will be great. So, definitely, Critical Raw Materials Act is trying to provide the conditions for that. It's not such a direct as the US Inflation Reduction Act.

I think Inflation Reduction Act is a little bit more sophisticated and is providing really the financial frameworks for the companies to operate. Our European Act, I'm not a legal expert, but maybe you can talk to somebody who compared those two regulations. But I think it's a little bit different.

[Speaker 2]

Okay. And so, if we are looking about strategy for other countries, like, for example, the US, like, what are maybe one or two elements that you will take from it and you try to implement in Europe? Is it like more the financial part that has more emphasis in the inflammation in the act in the US?

[Speaker 1]

Yeah, definitely the financial part. Definitely the clear financial part and clear investment incentives. Yes. So, how the investment will be protected, what kind of incentives the investor can count on in US is much more direct and clear than in Europe.

[Speaker 2]

Okay, I see. So, like, if I remember, like, if it was an important point, I really like investments, like also strategic projects, strategic partnership. That's a lot of unknown that we will see in the next few years to see if really the act will make the, like, the difference, I would say, for the Europe and for the companies like yours that are in Europe and also developing abroad as a project. And also, if I understood well, like, the awareness about the possibility that the new technologies related to mining would also allow to really, like, do it in a more sustainable and societal respectful ways. Yeah, that's correct.

[Speaker 1]

That's correct.

[Speaker 2]

Perfect. And is there maybe anything else you would like to add and that we haven't covered and that you think that could be really insightful for me and my work?

[Speaker 1]

I think it would be very good for you to talk to the people at the EIT Raw Materials, because they are following the implementation of the act. They will organize a Raw Materials Summit in Brussels. It's on 15th and 16th of May.

[Speaker 2]

Yeah.

[Speaker 1]

And you as a student, you can participate there for free, I think. And you can ask them to put you also in touch with many, many people there. And you will meet many people there who can give you a very, very valuable input. So definitely try to sign in. Yes. So that's 15th, 16th of May, AIT Raw Materials Summit, Brussels.

[Speaker 2]

I think you are doing a conference there because I signed up for it. And I think that there I also saw your name, right?

[Speaker 1]

Okay. I have to check. I was supposed to, but I haven't.

[Speaker 2]

At least last time I saw it, you were doing a conference there.

[Speaker 1]

But you will have many people there, many people there. Try to get a contact, set up an interview and especially talk to the head of the European Aluminium Association. For them, they were very much fighting that aluminium will make to the list.

And if you ask EIT people to put you in touch with the European Aluminium Association, I think they will. But plus, there will be people at that summit from this association. So that's very good for you to discuss. Yes. There is a nice association in Brussels. It's called EuroAliage.

This is association of the European Ferroalloys producers. So they can also give you a very, very valuable and they are very open to talk to the students and to those who are very interested in the topic. So you can reach out to them. Yeah. Perfect.

[Speaker 2]

Perfect. Perfect. It was really also interesting to talk with you because you have more of that industry and that's real world expertise.

So it was very interesting for me to have your opinion about that. So thank you very much for your time and also for your help and to have been willing to do that interview. And I wish you a lot of success for your projects. And yes.

[Speaker 1]

Thank you. Let's keep in touch. Let me know how the process, how your master thesis is going. Thank you very much.

[Speaker 2]

See you and have a nice day, P10.

## Interview with P11

[Speaker 2]= P11

[Speaker 1]= Gauthier

[Speaker 2]

Ah, don't, don't worry, don't worry. So maybe before like asking you to present yourself, I will explain you a little bit of context of this interview. And yes, so my name is Gautier, I'm 22 years old from like a student from Belgium, UCL Louvain.

And so for my master's thesis, I am really trying to analyze the strategy of the EU for critical raw material, more as defined in the CRMA. And I am focused on the environmental and more social aspects related to it. So I'm really trying to interview a lot of different stakeholders to have their perspective as our experts in their field like you.

And so, or so I can show you that everything that will be said during this meeting will be anonymous, confidential. I know it's not really necessary sometimes, but I prefer to mention it. And yeah.

And so can I maybe record the voice of this interview like that I can release on it later on and I can focus on you, I don't need to take notes. Perfect. Perfect.

Perfect. So maybe can you like briefly introduce yourself and explain to me like your involvement with critical raw materials, CRMA?

[Speaker 1]

Yeah. So, yeah, so I'm P11, I'm working at an Environmental NGO. I am leading the work there on raw materials and resource justice.

So we're looking at it from more systems perspective rather than just isolated on due diligence or recycling, blah, blah. And, and yeah, I've been working on this topic now for about three years. Before then I did my master's on international development and I started, I did my thesis actually on mining impacts or, yeah, mining, one mining impacts on indigenous communities in northern Peru, but also related to the fact that is the mining sector contributing to, to Peru's development.

And in this sense, I, you know, from then on, I started working now at the Environmental NGO in 2020 as an intern first on circular economy, and then later on built up this expertise more in the extractive sector and then raw materials in general, but also what is called resource justice. So we're seeking the consumption and production of material demand in the EU, particularly because it's a heavy consuming region of the world and, and yeah, and seeing how we can reduce consumption and production, the EU level to reduce micro impacts on communities, environments and yeah. So it's more holistic.

[Speaker 2]

Yeah. That's really interesting. And that sort of fits really well with the team of, the global theme of my research. So I was like, really like wondering first, like in terms of actual outcome, yeah. To what extent does the actual outcome of the CRMA align with its intended, like strategic goals, particularly like securing CRM, supply and also, and sustainable practice. Are you satisfied with it? And can you maybe comment on its feasibility of objectives?

[Speaker 1]

Yeah, sure. So it's a good question and kind of loaded. So I'll try to unpack it because as you already know, there's four main targets, right?

The main sourcing, domestic sourcing of 10%, the processing of 40%, the recycle of 25% and then the 65% diversification target, which is a minor target out of the three, but still really important. Well, the EU, of course, wants to have all of these. These are targets.

It's not measured by hard law. So it's soft law in that sense by that, well, kind of soft law. The targets are not binding, let's say, but they are indicative of where the EU wants to go.

And I think your question was more like, is this feasible, how realistic? In terms of domestic sourcing, I don't think it's realistic and I don't think we'll be able to achieve the 10%, mainly because it's really important to take in the first 10%. It's really important to highlight how the consumption of the EU is related to the rest of the world.

So the EU around, I haven't unpacked this number yet, but it's an indication, but 20 to 25% of the world's raw material demand is coming from, sorry, critical raw material demand is coming from the EU. Meaning that we make 6% of the world's population and we consume 20 to 25%. This is a geological survey of Sweden's numbers, not my numbers.

Meaning that the rest of the world has around 80 to 75% of consumption. Just to give you another idea, the United States makes 4% and they actually consume even more. I don't know how much, but it's much more than the EU.

China makes around 20% of the world's population and that leaves very little for the rest of the majority world, right? The global South countries that also need these materials for their own development. So we're talking about a disproportionate amount of consumption.

Then you put this number into actually what it means. It means that 10% of that already inflated consumption coming from the EU must come from inside the EU now. And that's massive.

We in the EU mainly, well, our mining industry here is limited, but the main mining industry is iron and a good amount of copper as well. And that's coming mainly from Spain, Cyprus, Sweden, Finland. But now the issue is that to increase that 10% is quite massive.

10% of 25% of the world's consumption is a lot. And they're not going to be able to achieve this because there's too much resistance on the ground. The process moves really slowly in the EU. And by 2030 we have six years, I mean, good luck. So they're not going to do it, but it's still, it's an indication. So what's going to happen is we're going to have a lot of speculation, a lot of projects that are going to be seeking to open up because there's not at the moment enough focus on how the EU can reduce this demand.

So that means also potentially political, well, we don't know what it's going to look like. Quite frankly, we don't know, but we can only suppose. We're already seeing how environmental movements are aligning themselves on this topic. We're seeing the situation in Serbia, which was really dramatic in December 2022. We don't know what's going to happen in the future. You combine this

also with geopolitical conflicts, the cost of living crisis, climate change impacts. And you're talking about a really thin social fabric of the EU and you impose these projects on them without enough consultation or consent from the commuters, enough communication, no transparency. You're talking about really, really big pressures on the working class. So in that sense, very concerned about how that's going to go down.

On the processing side, I'm less concerned, though that's an overarching target. So different materials will have different processing capabilities. But I haven't followed the processing sector too much, so I don't know how we're doing there. But that's not too much of a focus of mine at the moment. But I think we might be able to do that 40 percent. I think, I'm not sure. Companies like Umicore will be expected or Transfigura or others will be expected to do a lot more to pull their weight. But also the EU right now has the issue with the processing is that we have really high energy costs compared to other countries, particularly the United States or China. So and we are unable to mobilize funds like these countries can in the EU level.

So with a high energy cost in a low financial space, fiscal space, I really find it difficult that the EU is going to be able to attract these heavy industries, because these are heavy industries. So you're going to have to attract these processing facilities, which you're trying to make sure that these happen and without fossil fuels, and that's even more costly because then you need green hydrogen. And that but you need a lot of materials for that. So it's tough. I don't think the EU is going to meet that 40 percent processing. On the recycling front is also tough because 25 percent from what I've heard from the recycling industries, the 25 percent is really, really ambitious. But then again, these are recycling companies that also need well, the issue is that you need a lot of input, so you need a lot of collection of these materials. And we don't have that just yet in batteries. We do. So that's going to be good in the sense that we're going to be able to recycle a lot of these batteries. You know, there's a there's a floating indication that lithium batteries are only sorry that lithium is only recycled at a one percent. That's technically not true because that number is using numbers from like 2011.

So that's really, really long time ago where recycling at least collecting, I think, 95 percent of the batteries at the moment in recycling, at least in China, they're recycling about 15 to 20 percent of the lithium in Europe. We'll be able to meet. I can't remember the numbers I would have to check on this, but we'll be able to meet quite a decent gap by the 20 by 2030.

And this is thanks to the battery regulation, not just the Critical Raw Materials Act, thanks to the battery regulation. But in terms of meeting that 25 percent on the aggregate, yeah, that's going to be also extremely difficult. I just don't think the EU is going to be able to do it in the next six years.

So to really boil down your question to its basics, the EU is not going to be able to complete its goals because at the moment its sole purpose is to increase dramatically the material demand where it doesn't need to. By that I mean it does need to increase and it will because you do need to build that renewable energy capacity, et cetera, et cetera. At the same time, when people say we need mining for the renewable energy, sorry, for the green energy transition, that's only partially true. Most of the demand is not coming from the digital transition, sorry, for the energy transition. Most of the demand is coming from the economy as a whole. I always like to highlight this. You don't eat food just to nourish your arms or your legs. You eat food to nourish your body. So when people say we need mining for the energy transition, I'm like, no, you don't. That's only partially true. You need it because the economy as a whole, the way it functions, needs it. So in this sense, the EU can reduce those sectors that are hugely, hugely energy intensive or materially intensive. And it can do so through policies that seek to actually transform the economy in a way that is less consummate, consumptive and in a way you're making it easier to meet your targets. You know, if, for example, just to give you an idea, the mobility sector. Is the most critically demanding sector, 60 percent of the critical raw materials demand is coming from the mobility sector. Most of that is coming from the private vehicle use. They're not really looking, as far as I know in the models, they're not really considering massive public transportation uptake. They're really looking into private vehicle use.

If you create cities like Paris right now, which is trying to actually shift mobility consumption systems where people are biking more, there's more walking lanes, there's less private vehicle use. You're already going to have a positive impact on your demands. The same thing I could say about, for example, like Germany having their train of nine euros in which a lot of people, well, one, it saved a lot of emissions like CO2 emissions from people just not driving, but actually taking the train. If you did that more on and that's just one indication is only for three months. But if you did that across the economy, you would immediately reduce your massive massively your the amount of materials that your economy needs. Right.

And then you make the as you need less materials, the insourcing in the EU, which is 10 percent, can already be met faster because now you're reducing that. Same with the recycling and same with the processing. So in a sense, focusing on demand makes it easier to meet these targets because at the moment everything's increasing. No questions asked. Every sector needs these materials, blah, blah, blah. Make it happen. Mine recycle as much as you can. And it's like, why would you do that? You're not thinking strategically.

So so this is why it's so important to think about it, because we also won't meet these targets because by 2030, we don't know what the world's going to look like. By that, I mean, we couldn't predict in 2019, early 2019 at least. That covid was going to happen in one year. It shifted our supply chains, completely changed the way we look at supply chains around the world. Following 2021, early 2021, no one knew that Russia was going to attack Ukraine again, another geopolitical conflict. Now we're talking about Gaza is also the Houthis in Yemen and in the in Gaza right now. It has a link in that a political conflict might war actually might actually break off in the Middle East very soon. So this is what I'm saying. We couldn't predict that. Again, we can't predict what's going to happen in Taiwan and China and the United States. None of the other things that I mentioned just now can even compare to a war within the United States and China. None, because most countries in the world depend on China as a number one trade partner or number two trade partner. And the United States is at the moment one of the has one of the highest GDPs in the world. China is up there with them. So you have the two of the world's biggest countries fighting your whole supply chain just collapses. So that would be not only human life, but costs, but generally economic costs that are incomprehensible. So this is what I'm saying. The EU puts in a situation in which it assumes that supply chains will function in a similar way as they have in twenty nineteen. And it's not resilient enough in all it wants to do is to diversify and they call that resiliency. But it doesn't look at it doesn't. But the thing is, it doesn't matter because countries are geopolitical and you can never really like ascertain if you will definitely have the same government because there is government changes every four years. And just just as an example of of Indonesia, which wanted to shut down its trade of nickel. We have also Argentina that is now not no longer joining the BRICS. We had Brazil now that turns from Bolsonaro to Lula. I mean, that's a drastic change. So Argentina is also a drastic change, but the opposite way. So you can't rely on other countries stability. You can rely on your own stability. So this is why resource use reduction is such an important aspect of this, because this is the way that you can actually tangibly not depend on other



countries, because now it's no longer an environmental argument, which before it was because obviously you focus on the man, you reduce your environmental and social pressures, of course, because you need less mining, let's say. But now is more of a geopolitical issue. Now it's more like we don't know what's going to happen in the next few years. Create an economy that reduces its material demands so that you're less dependent upon other countries. And yeah, that's kind of a long winded answer.

[Speaker 2]

No, but that's a really interesting answer. So if I understand well in the hypothesis that they did, they thought that resilience in a certain way and it would have been great or so like really to put its effort in terms of better allocated as a resource in the economy, because that would have helped, I would say, to meet those new goals and really to tackle the problem from the ground, I would say.

[Speaker 1]

Yes 100%, exactly.

[Speaker 2]

Ok, it's very interesting. And maybe do you see, I mean, you already talked a little bit about that, but do you see another other potential challenges that could arise during the implementation of this act?

[Speaker 1]

Well, yeah, a lot. I mean, depending on which sector you want to speak about, I'm more familiar with the mining sector because that's the one that we have looked at the most, because frankly, it's the most contentious out of the other processing or recycling. Recycling, you know, everyone pretty much agrees. Yes, we need to recycle a lot more. So there's not that much of a like issues there. But the first one is, I mean, on the mining side, at least it's more like. The biggest thing is at the moment is that we don't have the what is called due diligence tools at the moment to actually allow mining companies not even allow, but to force, I would say force, because mining companies are notoriously bad at their due diligence process. Honestly, they're some of the worst in the in the industrial sector. And and with that, with that means that we don't have the legislation. The EU is not legislatively or whatever ready, ready for this. With that, I mean, the CSDDD, which we probably have heard of, the Corporate Sustainability Due Diligence Directive is massively watered down, meaning that you have very few companies eligible within this. And which

means mining is also not a high risk sector anymore. So there is less expectations of what that looks like. And then, yeah, so there's a lot of going to be a lot of free reins for mining companies because there's no hard law mandating them to behave a certain way. So what happens then is they're going to do try to do whatever they can, try to get away with whatever they can.

And then communities on the ground are going to mobilize and they're going to stop the projects. So that's what I'm saying. It's like I just had a conversation with a consultant and she said, yes, but, you know, we care a lot about the mining project and the environmental and human rights due diligence angle is really important because it does come at the cost of our profits and stuff like that. And I'm like, I don't really believe that, because if that was the case, then every single mining company would be doing such a good job when it comes to due diligence. But they're not. And they're not because there's no laws requiring them to actually do that. And anyway, so in that sense, the fact that CSDDD was so watered down and the fact that the Critical raw Materials Act depended a lot on what the CSDDD said because they didn't want to do any new legislation on due diligence. They said, no, everything's all already on the batteries regulation and is also on the CSDDD. We don't need anything else. But now the batteries regulation is good, but it only focuses on, I think, four materials. And then the other one is now the CSDDD is watered down.

So now you have a lot of other materials that are not included in the battery regulation and you have a lot of companies not included in the CSDDD, they have a perfect mix of non-regulation when it comes to the fact that now you need a lot of these materials. So what they're going to do is they're going to put a lot of pressure on the ground for communities. Communities are much more organized than they were 20 years ago when China was growing their economy and they needed a lot of these materials, which caused what's called the commodity boom in the late 2000s. But now, now it's not like that anymore. There's a lot more knowledge about the mining impacts. There's a lot more communication, et cetera, et cetera. And now you also have the issues of climate change becoming worse. So now the issues of water are much more relevant now to a lot of people on the ground. They were 20 years ago, even in Europe, water is an issue. So in mining needs a lot of water. You know, you have agricultural land as well that is really, really in short supply at the moment because of the issue of water as well or just space needed. And then you have the other issue of, what was I going to say, of indigenous land

acknowledgement, of course. So that's a big impact. So, yeah, I mean, in this sense, it's like we create, I keep saying this, like we create our own problems.

We literally create our own problems. And we try to look into the solutions within the same framework of how we created those problems in the first place. So then we have no imagination about how we can reduce this material and this material impacts on a holistic level. So this is, well, at least it's not part of necessarily directly linked. I mean, it is directly. This is why we're working towards a raw materials reduction target. At the EU level, which is basically it would have a binding target similar to what we have for climate law, you know, reduction of carbon emissions, but it would seek to reduce material use as well in the economy. And anyway, luckily we're gaining traction there and there's interest.

[Speaker 2]

But yeah, that's very interesting. So you would have said or so that maybe it would have been helpful to to add some some details or some some part of legislation inside the CRMA for that specific problem instead of relying 100 percent on other legislation around it to to make it match with the CRMA basically.

[Speaker 1]

Yeah, exactly. So that's what that's exactly what it was. The Green Deal is set up in a way that is what is called green growth, that everything is expected to increase without really the only sector that is actually expected to decrease is fossil fuels. Yeah, but but that's that doesn't really do much. I mean, if you just reduce fossil fuels, you'll have which is what I always say. You have clean air and dirty water or dirty soil. Like, what's the point? You want to do both. So so this is why.

And then with the Critical Raw Materials Act, it looked at the climate targets and it looked like what we want to do with the digitization and said, OK, well, let us get the materials for that for those goals. And I get it, I get that. I mean, the Critical Raw Materials Act was. Limited in that sense of what it actually could do, because it still had to rely on these other policies, right, and it couldn't change those other policies, it can only be like it's only mandated to answer to those policies. But that's generally true. But there is one tiny thing that I think is truly important. And this is something that the Environmental NGO fought very hard for. It was us civil society organizations and really the Greens on the left at the parliament that managed to get this in, which was really impressive, is

where they say a moderation of demand is in there. So if you look up in the Critical Raw Materials Act in the final text, moderation of demand, it's in there. And now what's going to happen is it opens up the avenue of actually challenging how much we're consuming and producing. And one thing that is going to do is is going to mandate the joint resource center, which is basically the research body within the commission to it is the body that does the strategic foresight every three years on how much materials the EU needs. But you've probably seen that document already.

Well, they only have two scenarios. They have a low demand scenario and high demand scenario, and both of them only look at the ambition of EU goals and technological uptake. That's what they're focused on. But now I don't know how they're going to do it. We'll be involved in that. We'll see. But I think they might have a third scenario, which is looking to what is called sufficiency. So reducing of demand from demand side solutions, not just supply side solutions. So looking potentially at behavioral change, resource efficiency substitution, but mainly looking at behavioral change, which is crucial. Right. By behavioral change, I mean, like I mentioned, my Paris example of actually getting people out of their vehicles and into their bikes or into walking and how this can reduce material demand. So anyway, so that's huge, because what that does is then it informs the EU like, hey, look, it's not just us talking about like raw material demand reduction. It's actually this can be achieved by by this policy and it can reduce X amount of materials, blah, blah, blah. So we just need the research, really. So I'm glad that they're going to be looking into it. And this is this is now the Critical Raw Materials Act, which wasn't before.

[Speaker 2]

That's super interesting. And also, I was wondering about the certification scheme. So.

[Speaker 1]

Ah, yeah, sure.

[Speaker 2]

What do you think about the system put in place to ensure that a strategic project, for example, has limited social and environmental impact, through certification scheme?

[Speaker 1]

Yeah, so in terms of certification schemes, yeah, so as a... I don't know if you've been following our work, but certification schemes are extremely concerning because certification schemes really rely on... So basically, you have... Imagine this, you have a mining project... I don't know how familiar you are with certification schemes or...

[Speaker 2]

I mean, I know some of the certification scheme, I try to understand it. To be honest, at first when I read the CRMA, I thought that certification scheme would change the world, but now I am more dubitative about that, but I am...

Technically, I'm not that...to be honest.

[Speaker 1]

Fair, fair. So it won't change the world. By that, I mean, it's a good data point.

Basically, if you're a mining company or let's say downstream, you know, you're a car manufacturing, it's difficult to know how good the... where you're sourcing these materials are being done because you have your PR image that you want to keep uphold, blah, blah, blah. So in this sense, you want to make sure that you are able to source your materials and feel good about it.

On the downstream... Sorry, on the upstream, where you are the mining company, you don't have that pressure that the OEMs do because no one really knows mining companies. They don't really know, oh, Glencore, they're a shitty mining company or Rio Tinto. People don't know. People do know BMW, people do know Mercedes-Benz, et cetera, et cetera. So they have a different societal pressure, investor pressure, let's say.

The certification schemes don't really come for the BMWs or Mercedes. They come for the mining companies. In this sense, now, like I said, you already have reduced the pressure of how society demands these materials and now you're putting the certification schemes on the producer, which is the mining company, where the social pressure is not really there as it is for the OEMs. And why is this important? Well, there is investors, of course. Yes, they care. But investors are also wanting...they do have the pressure, to some extent, of wanting to make sure they invest in projects. Well, some, not all, by the way. All others don't care. They're just like, if it's going to make me money, great. Other investors are more ethically concerned. So the certification schemes, what they are is basically a way to assess how a mining company is doing with its due diligence. So that's very briefly.

Now, you have a million certifications, many of them, and many of them have different levels of ambition. Some look more into wider impacts, others don't. Others include free prior informed consent, others don't, blah, blah, blah. So a lot of different things. But a mining company is able to choose.

They can choose whomever they try to get the certification from, right? And then if it's one certification that they look and they're like, okay, I think that's going to be an easier one, I'm going to go for it. And they go for it. And then that certification, what happens then is you have an auditor that comes in and audits this project. But the auditor is only there, they're not there for the whole year. They're there only for a certain period of time and they assess a certain period of time. So it gives you a tiny window of the operation itself. So let's say that you're going into a room, the door is closed, you peek open the door and then you close it. And then I ask you, okay, what was in the room?

You're only going to be able to tell me a tiny portion of what you saw, but not everything. Does it mean it doesn't exist? Well, of course it exists. You just didn't see it. So in this sense, it means that it's a data assessment, how the mining operation is doing at a certain point in time, how it can improve, blah, blah, blah. So in that sense, it's useful to see the behavior of a company. But in a sense, from a human rights and environmental perspective, it is limited because it doesn't account for serious environmental social harms that are currently happening when the auditor is not there. And second, what happens if there's a lot of wrongdoing? What happens if the auditor, even within that sliver of space in the room that it was able to see, says, oh wow, this is really bad.

Well, a couple of things can happen. One, because the auditor, again, is hired by the company most of the time, there is a relationship between the company and the auditor because the auditor depends on the income from the mining company. So already, you have a conflict of interest there. So in some cases, the auditor can tell the company, look, I saw it, and this is what you should do. We won't be public, blah, blah. Or the auditor can also neglect it.

I mean, under the most egregious cases, right? Act like it didn't really happen or just frame it in a way that it doesn't sound that bad. So that's really wrong. And then what is the wrongdoing? How is the company going to be held liable? Well, it's not because there's no legislation making them liable.

All it's going to do is just give them a slap on the wrist and say, do better next time. I'm sorry, but when the human rights and environmental due diligence do better next time is not good enough. We need people to actively go to jail. If there's human rights and ecocide going on, let's say dumping of materials on a

river and it's killing a lot of animals and polluting communities downstream, people need to go to jail. And we don't have any mechanisms for that, unfortunately. So in a sense, it's like we don't have legislation that is going to put people fully responsible for these or they pay a fine, they pay a fine that is like 1% of their turnover.

That's nothing. So we don't have the system ready to uphold these companies liable. And yeah, so this is why the story behind schemes are very limited. And then we write this in the limiting of our mental damage, human rights abuse, indigenous people's rights, blah, blah, blah. There's the guidance from Raw materials coalition that we provided. You can have a look in their specific section on on certifications. And it gives details as to kind of what the issue is with them, looking into the critical materials act and saying how they could be actually done in a more useful way.

[Speaker 2]

Thank you very much for the explanation. And there also like the insight and the resource, it will be super useful. And I was also wondering, like in terms of more on social aspect, like with the CRMA, can you think maybe it's some gaps in terms of social that can, because of the CRMA, have some impact in terms of social aspect of it or things that you would have loved to see improved in this in terms of social for that act?

[Speaker 1]

Yeah. So in the beginning, there was, for example, in the, so, so I don't know how you understand EU law, but you know how the commission first proposes, right? It's a proposal and then it gets debatable. So in their initial proposal of the critical materials act, the mention was of facilitating public acceptance as a means of increasing social support for a mining project. It said that member states should facilitate public acceptance or the mining company. I can't remember what the exact wording was, but that was hugely concerning.

I mean, imagine facilitating public acceptance basically can be translated to coerce public acceptance. How do you facilitate public acceptance? Well, that's very, you know, I don't know. That could be either you facilitate by coercing or you facilitate by having a democratic process, but you can facilitate under both scenarios. So it's not clear from a legal perspective. Now that language has improved massively.

Now it is a meaningful consultation or meaningful participation. I think as thing is the language and meaningful participation as stated by the OECD guidelines

on multinational companies. So that's good because now it sets a precedent of an OECD instrument or OECD document that is meant to be used by companies seeking strategic project status, no longer about facilitating public acceptance because you can send the police or the military force to facilitate the acceptance from the communities by, you know, in case of a protest, you can facilitate public acceptance by beating down the protesters. So this is, I mean, in a sense you could. So for us, that was really concerning. So luckily now there is the mention of United Nations rights of the Declaration of Rights of Indigenous Peoples mentioned in there. So that's really big. That wasn't there before. Big improvement there. It's soft law, but it's still good because it does create, there's a document as well within the United Nations of, yeah, free prior consent and what that means, blah, blah, blah. So it is massively improved on that front.

Now I should say this is what is on the document. When it actually looks like an implementation, that's something else, which is why this document that is shared to you is also really important. Because one thing is having wording in a legal document and another thing is actually how that translates to on the ground. And humans are complex. There's a lot of profit seeking in this way. And if these things are actually respected, it's really to be determined.

I don't think they will because we know how they operate, the mining companies operate. But at least there's a legal case for it now. You can take action, let's say on the courtroom, you know, and say, hey, this is actually what the law says and this is actually what you did. So, yeah. But it has improved.

[Speaker 2]

That's really interesting. It's true that the wording, when I read it, was also something concerning. For example, I think I saw something about like public interest sometimes or like about like value creation when you do a partnership.

And it's true that it came up to my mind when I read the value of the proposition. And that's also why I choose first that subject, because it can be concerning. But so I understand that for that social part on the paper, it looked quite good. But in terms of implementation, that's there that we need to see how it's really happened and how it's translated in real life, I would say.

[Speaker 1]

Yeah, 100 percent. Exactly.

[Speaker 2]



Maybe in terms of environmental part, except what you already talked to me about, like certification scheme and also like the other points that you mentioned. Do you see any other gaps that are still remaining and that could be impactful for the environment because of the CRMA?

[Speaker 1]

I think besides the demand, besides the certifications, maybe the other one would be overriding public interest, which is also interesting. Maybe not necessarily a gap, but also a bit of a win on our end. What is called the environmental impact assessment, which every mining project generally needs. There was a discussion of fast tracking. So the concern was that the environmental impact assessment initially in the proposal would be included within the fast tracking process. Luckily, now we learned that it won't. And that's massive, because that means that environmental impact assessments won't be rushed. And that's also an issue because this is where the public as well can see what is the impact of this mining operation and how do we understand it. So that won't be rushed, thank God.

But there will be the issue of overriding public interest, which every strategic project is going to seek. Well, it's going to have. And that will mean potentially mining in nature sensitive areas. And in the EU, we're really, our natural ecosystems are really struggling at the moment. And this would be another pressure for them. And I see issues with a nature restoration law in the Critical Raw Materials Act. And I can see some clashes between them too, because the nature restoration law tries to restore about, I think, 15% or I can't remember, 20% of the EU land to a certain grade by 2040, 2030, 2050. They have different targets. But this might come into conflict with the Critical Raw Materials Act, which seeks to extract more materials in the EU, even from biodiverse regions, so what is called Natura 2000.

So the nature protection conservation issue will be really, really tense in the coming years within the Critical Raw Materials Act. And yeah, so I see that gap of policy gap of what the EU is trying to do with its biodiversity and soil versus what it's doing with its climate goals. So there's the gap of biodiversity protection and climate goals and how they come clashing at each other. They shouldn't. They shouldn't. But unfortunately, in the law, they do. They will.

[Speaker 2]

So yeah, that's true. I think a lot of mining sites are in Natura 2000 sites. And so they will have to go for it to meet the objective. So it was quite concerning

about it. And also for the fast tracking, I have seen that. So as you have mentioned that the environmental assessment is outside of the 24 month, but the social part is inside the 24 month.

[Speaker 1]

So yeah, yeah, exactly. So the people will have, I think it's, I can't remember, 120 days max, if I'm not mistaken, I can't remember how much, but they will have some time to, yeah, to, to give their opinion on the, on the projects themselves.

[Speaker 2]

Okay.

[Speaker 1]

Yeah, that's great.

[Speaker 2]

And also, what do you think about the impact of the EU strategy for third party countries in terms of social or environmental impact through like strategic partnership or like what will be in your opinion, the impact of the EU strategy about CRM for other countries?

[Speaker 1]

Yeah, so good question. So the EU is going to try to get access to these countries and they're calling it a win-win partnership. And when everybody, whenever somebody says win-win, I usually ask, somebody's losing and they're not telling me who.

So basically that means that the EU is going to try to get access to these materials. We have some documentation about free parliament from consent here in the EU as, or sorry, what that looks like on the social level, but we have jurisdiction and we can know how our laws are operating in the EU. We can't really put that on global South countries because we're, we just, we don't have direct jurisdiction.

We do have the right of calling it a strategic project or not. So we do have leverage there, but in terms of fast-tracking, if a project does receive strategic project status, we don't know what the fast-tracking process would look like in that country. Will, will they have a public opinion feedback timeframe, time zone? I don't know. Will their environmental impact assessment be included within the fast-tracking process? I don't know.

So that's things that are not answered at the moment. That's one. The other thing is about a lot of these countries are heavily indebted and in which case they're really want to get these projects going through as fast as possible. So will there be enough community consultation? Will the project be stopped eventually because there wasn't enough community consultation and then now people are rising against this project? Again, that's still to be determined.

And will it actually create a win-win partnership in the sense that it will help those countries move up the value chain? I don't think so because I don't really think that the EU is going to want Chile to compete with European industry on processing of, of lithium, let's say, once we build that, because a lot of people are not seeing that like the EU. See, here's the thing.

China can do this because China has economies of scale, meaning no country is able to compete with them because they can just build more of it and cut their costs and the state can subsidize it. And they're just doing well. They're extremely efficient and their technology is improving every day. They're not so threatened by creating a processing facility in, let's say, in Namibia or Zimbabwe or whatever, because they know Namibia and Zimbabwe will never compete on a global scale against them. The EU doesn't have that ability. So we can actually be concerned about Chile increasing its processing capabilities and being just better at it than we are.

And I just don't think the EU is going to want that. So when people say win-win partnerships, I'm thinking, oh, that's, that's not true. I mean, if future behavior is any indication, past behavior is the biggest indication of what the future behavior is going to look like. And the EU is extremely colonial still, unfortunately, extremely colonial. So I get what they're trying to do is they're trying to do a political, a political message to the rest of the world saying, hey, we know that China's doing the Belt and Road Initiative and they're getting a lot of support from the global south. Maybe you want to get a little bit piece of that pie too.

So here's our proposal, blah, blah. But African countries, Latin American countries, they're like, I mean, if you can't offer us anything better than the Chinese, then what, why, why should we do business with you? So that's the thing. That's the thing. And the thing that the EU has an opportunity in a sense to, to say, okay, we're going to swallow our pride. We're going to actually try to improve the social and environmental conditions of these projects and actually exchange, you know, technology in joint joint ventures, let's say something like that, which could be done, which is exactly how China became a much more

technologically advanced country through joint ventures voluntarily by Western companies that wanted to invest there. They had to do joint ventures with Chinese companies. The same could be done in global south countries. But yeah, that's still to be determined.

And that is a way that which you can have win-win partnerships if you do actually join ventures, but that would require technological exchange. That would require actually these countries owning part of that company in some way which is what the Chinese state did. Aside from that, somebody's losing in this, and they're not telling me who, especially the indigenous populations. That's another thing. If there is no social consent, people will rise up. And that's, I don't think something that Europeans are ready to work.

[Speaker 2]

It's super interesting perspective about it. And so also about the indigenous people.

[Speaker 1]

I will say this, Gauthier, it's a more realist perspective than what the industry or the politicians are going to tell you, because the industry is only interested in their own specific niche. And they're going to tell you wonderful things. You're going hear great things, almost as if you're an investor and interested investor in their company. They only tell you good things. And then if they tell you bad things, it's usually the other competitors or they blame the Chinese. The politicians are the same way.

We in civil society, we have nothing to lose. We look at the situation on the ground. We look at the geopolitical situation. Then we look at the policies and we make connections. Are they actually meeting what they're trying to do? And we don't have to sell you shit.

[Speaker 2]

No no no, that's super interesting. And I like that exchange. For example, I have a call this afternoon with someone from an EU institution, and I guess it will be a little bit different in terms of information, but it's really good for me to hear that. And I had maybe a last quick question. It was about the governance. So what are your thoughts very quickly about their system, like critical raw material boards and their system of governance?

[Speaker 1]

That's a good question. And at the moment, it's a bit early, at least from us to know, it would be a good question if you ask the Commission, by the way, on this point, because they're figuring it out right now. What it's going to look like, how many meetings they'll have, I mean, at the moment, they're still figuring it out. So we haven't really received details. There is actually a point, at least we'll be invited, supposedly, within some of the ad hoc meetings that they'll have on including civil society and industry perspectives. So we will be invited. So luckily, we were able to manage to have this space of actually having the civil society organizations there. So that's really good. But yeah, so it's still to be determined what that's going to look like.

[Speaker 2]

So, yeah, that's, yeah, the implementation phase will be really important and also how it will concatenate everything. And so maybe is there anything else you would like to add that we haven't covered and that could maybe help me in terms of point I should look at or information that are important for you and that we didn't talk during this interview?

[Speaker 1]

Yeah, just that board. And we really want to know more about the European CRMs Board and the club, because the club is the one with the third countries and the board is the one that's going to be administering what the strategic projects looks like, where should the strategic projects be approved, should they not, blah, blah, blah. So yeah, these two bodies are extremely important for us.

[Speaker 2]

Perfect. So thank you very much for your time and for your help. Maybe what else would you recommend I speak with to gain further perspective on the topic or if you know someone that could be interesting or yeah.

[Speaker 1]

Well, what is the thesis?

[Speaker 2]

It's like analyzing the strategy of the EU for critical raw materials as defined in the CRMA and we focus more on the social and environmental aspect of it.

[Speaker 1]

Ah, OK, OK. Oh, let's see if you want to know more about, let's say, indigenous rights. I have a contact for that. That would be just me. Ah, see, since you're looking at the social, are you looking at a specific region or just more like in general?

[Speaker 2]

In general. So I'm just looking at the whole like analysis. That's why you're so like looking at the impact on other countries. What's really interesting. And that's how you really like your perspective about it. So, yeah.

[Speaker 1]

OK, so that even P22 from cultural survival is good. And then are you do you want somebody more grassroots or somewhat more grassroots?

[Speaker 2]

What do you mean by that?

[Speaker 1]

Someone that's grassroots is like is somebody that is focusing, like working on the ground.

[Speaker 2]

Oh, yeah. It will be it will be great. So if you have those kind of person, I think it could be useful.

[Speaker 1]

Yeah. OK, so I do have she's working more in Serbia.

[Speaker 2]

OK, perfect.

[Speaker 1]

That's her email now. So P22 is more indigenous rights and Nina is working on the topic on the project in Serbia. So she would be able to tell you more about that specific project.

[Speaker 2]

That's that will be amazing. Thank you very much for your help and insight, P11. And so I have to tell you that you are very good to explain things. It was it was. Yeah, no, no. I have to say it was really easy to understand and very nice. So congrats about that. And thank you very much. I hope that you will have a nice

day and a very good weekend. Thank you for your help. Super useful P11. See you.

[Speaker 1]

Bye. Take care.

[Speaker 2]

Bye.

## Interview with P12

[Speaker 1]= P12

[Speaker 2]= Gauthier

[Speaker 2]

I'm fine too. Thanks. So maybe before asking you to present yourself, I will tell you a little bit more about the context of this interview.

So my name is Gauthier, I'm 22 years old and I'm in my final year of master in UCLouvain in Belgium. So for my thesis, I wanted to focus on the analysis of the European strategy on critical raw materials, and more specifically as defined in the CMA, and with a focus on more social and also maybe environmental aspect of the thing. And so that's why I'm really trying to interview a lot of different stakeholders.

And I did, for example, an interview with someone from an European institution that really advised me to contact also your EU institution as you are more focused on the implementation part. I can also ensure you that everything that will be said will be like anonymous and confidential, even if sometimes it doesn't need it, but I prefer to ensure it to you. And also, maybe can I just record the voice like that? I can really focus on you right now, and re listen it later on.

[Speaker 1]

Yes, fine to record. But as you say, you cannot use it to code me because we are not allowed. You can use it for your background information and for understanding better the issues, but not really to code me or to use my name because we need a special permission for that from our communication and spokesperson service. Okay, that's fine.

[Speaker 2]

Don't worry, everything will be anonymous and there will be no code about that. No worries about it. So maybe can you like briefly introduce yourself and explain me like your involvement with the CRM in general and the CRMA?

[Speaker 1]

Okay, so we are from a DG. It's the DG on x. And I'm the deputy head of the unit dealing with x. So basically, our unit is the one leading the raw materials policy in this EU institution. And we were the ones that x the Critical Raw Materials Act. And we are in charge of following its x. So the CRMA Act, which is a regulation, as you very well know. So basically, our unit has two main teams, one working on the critical raw materials and one on the x. Of course, there are synergies between them. And yeah, that's who we are. We also deal with the external aspects of the raw materials policy. So it's raw materials diplomacy.

We are the ones that are developing strategic partnerships on raw materials value chain. We are doing that. Sometimes we are leading, sometimes other DGs like DG x or DG x, they took the leadership in developing some of the partnerships. But most of them, you know, we have 11 signs so far. Actually, today, we have the 12th one. So that's what to do with that.

The one with Uzbekistan was actually driven by DG x. The one with Zambia, for example, was by DG x. But the rest from 2021, when we started having the first one with Canada and Ukraine, it's been us. So we are driving the preparation of these partnerships and then follow up with the implementation of the roadmaps. As you see, our work is internal, domestic, in the EU, how to create the domestic capacities and the international pillar.

[Speaker 2]

Perfect. Thank you very much for the introduction. And also, congrats for all the partnerships that you are successfully signing, because recently I've seen a lot of partnerships that have been signed. So congrats about that.

[Speaker 1]

Thank you.

[Speaker 2]

You're welcome. So I was wondering, in your opinion, to what extent does the actual outcome of the CRMA align with its, let's say, intended strategic goals, particularly like securing the supply chain and so like, and things like



sustainable practice? Are you satisfied with it? And can you tell me more about the feasibility of its objectives?

[Speaker 1]

Yeah, absolutely. We are very happy with the outcome of the negotiations and the outcome of the of the act, which is it's very close to what the commission proposed. Actually, we had an excellent cooperation with the two co-legislators that supported us in this process.

And also with the external stakeholders that were also very happy with the outcome. So I think it's a very important EU institution initiative that comes at the right moment, because the situation was such that we needed to come up with an act that helps you develop its own capacities in this area, which is extremely sensitive and which affects the autonomy, the strategic autonomy of the EU. So the act always aimed to basically boost and develop the capacities along the value chain and also to reduce the dependencies on third countries.

We've seen with the different crises that we are very vulnerable to depend on single suppliers. So then we needed to do something. The war in Ukraine showed also the same on gas. But if you want to move to the green and digital transition, you need critical raw materials to have your clean technologies. And that's simple as that. So, you know, that's the benchmark that we proposed. They were kept by the co-legislators with the exception of the recycling benchmark that was increased. The ambitious was increased. It's very good.

We need to be ambitious. It's going to be very difficult to reach it. But of course, if you are not ambitious, then you don't make it. The thing with the recycling target is not that we didn't want to have more. It's just that from our analysis for many of these strategic raw materials, we have a recycle capacity of zero currently in the EU. So to reach 25 percent in, you know, six years time is very difficult.

That's also the fact that, you know, most of these critical raw materials are part of products that are only now deployed on the market. So basically, you don't have enough waste streams. So these products are not waste yet that you can, you know, recover and recycle from that. So that's one of the, I mean, only now you have electrical vehicles going on the market. So this will become waste streams in 15, 10, 15 years time. So in our analysis, by 2040, 2050, you will actually have enough waste streams from which you can really recover strategic raw material, critical raw material that you can put back on the market.

So that was our analysis. But of course, the idea is that these benchmarks are kind of political objectives. They are not obligatory targets and they are for the entire EU. So the idea is that we see an increase in, you know, in the recycling, for example, for each strategic raw material for the years to come. And in order to do this, we need to add, to implement certain provisions and take some measure. So this was the aim, to really work on the two fronts, domestic and international, and to really have the capacities in the EU to manage ourselves.

And if you look now at what's happening around the world, more conflicts, more war, everything that happens really affects us, like the Red Sea issues, the blockages there that will cut your ships, you know, to, again, you know, show us how vulnerable we are. So these were the main objectives. And then the third one, maybe it's very important that we have sustainable supplies of critical raw materials, because not everything, maybe, that comes from China or is produced is, we don't know exactly the entire value chain.

Yeah, so you have a product, but you don't know exactly from its origins. So that's the other very strong element that we need to have sustainable critical raw materials in the EU. And that's why we have these provisions, and we look at sustainability. And, yeah.

[Speaker 2]

Just a very quick question about the benchmark you mentioned. So we agree that here we are talking about strategic materials for the benchmark, so not all the critical raw materials. And it's the same with the strategic projects. The first condition is that it must be within, I think, it's like 17 strategic critical raw materials. I just wanted to be sure on that.

[Speaker 1]

Yeah, I can share with you the presentation that we have, because it's true, and I understand it can be confusing, because we talk about critical raw materials, and that's a list of 34. And this criticality assessment we've been doing in 2011. And basically, with critical raw material, you look at the entire EU economy.

So that's the thing, right? You take all the materials needed for all the sectors in the EU economy, and then you look at the supply risks. So that's how we, this is kind of the methodology that we have to identify the critical raw materials.

But then we try to focus, to really zoom on those materials from the 34 that are essential for the clean technologies, defense and space applications. So we really focused on this sector, on these sectors. That's why from the 34, we

ended up with 17 that are really strategic for clean tech, defense and space applications.

That's why we call them strategic. And that's why indeed, many of the provisions of the Act refer to strategic raw materials, including the benchmarks. But then obviously, it would be nice if, you know, all critical raw materials would be covered, and some provisions are broader, right? Like the circularity provisions, they consider the entire list. So that's the difference, basically. That's how we, yeah.

[Speaker 2]

Perfect. I just wanted to be sure on that. I was also curious because if I understood, like your DG and also your EU institution will be more focused also to secure, I would say, the implementation phase. So I was wondering, in your opinion, like, what are the main potential challenges that might arise during the CRMA implementation?

[Speaker 1]

Yeah. So now we are, the Act is not yet into force. So it will, we hope to come into force beginning of May. It's still in the procedures. You know, after it has been adopted by the Council, there is a signature that needs to take place between the two colleges later. And then it will be sent to the official journal to be published.

And then 20 days later, it enters into force. So our calculations and sometimes beginning of May, it will enter into force. And we want to start immediately implementing it because we don't have that much time by 2030.

And the provisions are really important and requires time. The main, I mean, we are concentrating at least now on three main fronts to establish the board, which is the governance structure of the Act. So basically to have all the member states, you know, nominations and to have to set up the board and the subgroups where different aspects of the Act will be discussed and agreed.

That's very important that we create this network of member states experts that we can come together on a regular basis. So the Act says every three months there will be a board meeting. And then under each subgroup on a specific topic, right, to see where we are, what have we done, what needs to be done.

The second implementation strand that we are working on is how to prepare for strategic projects because that's the main, let's say, very concrete, very short

term, let's say, probably deliverable in the sense that we are going to identify a list of strategic projects, a first list now, but then every three months another one. So these projects that will help us reach these benchmarks. And the third one is to establish the joint purchasing platform for critical raw materials, you know, like we have the same for gas. The president asked us to have the same for raw materials so that we bring together the aggregated demand and facilitate this, you know, the connection between the demand and supply in the EU.

In terms of challenges, when it comes to the implementation, it would be the preparation of the member states to really make sure that these strategic projects that will be identified and start being implemented, basically. You know that we have provisions related to the deadlines for permitting and that's really at the level of the member states to set up the system so that when a project promoter applies to make sure that they get the permits within the timelines. So that's really an issue for the member states to streamline and make more efficient the system, not really to cut corners or to, you know, the existing legislation, but really to make it more efficient.

The second challenge is financing, and that's been an issue. The Act doesn't come with a budget, so we don't have money as such to finance strategic projects, but we will create a subgroup on financing where we'll take each strategic project and we'll see together with the financiers what best way is to financially help, because each project has different needs. You know, some projects they might need only the permitting, others they need money and different types of money, you know. So we'll take each project individually and look at it. So the second is how fast we can actually deploy this funding. And that's a process in which we are to actually convince the financial institutions of the need to invest in mining. It's always been a reluctance for that, but banks like the European Investment Bank are more and more open to that and understanding the need that we need to invest here in Europe where we can do things properly.

And the third challenge would be the pace of all this development. So we need to be fast. Yeah. And yeah. So, you know, how fast can we be to actually get this project running and delivering results? So that's the third challenge, I would say.

[Speaker 2]

That's really interesting. I took some notes about like most important points, like financing, strategic projects, also member states. And by talking about member

states, if we start by that point, I was wondering how you like, if I understand, like in fact, the member states are really important in the process as them that will also help to qualify strategic projects and also give the permit.

So countries that were really involved in the process, if I heard correctly, like Sweden, for instance, that is very performant. I heard also Finland is very performant. But there are some countries that have less capabilities or that are less into that industry.

And I was wondering, how, for those countries, you are planning, in fact, to really like, not fight, but, you know, like successfully manage to overcome the different challenges, because it's like a lot of member states that have different situations, different resources, and some countries have different situations. It must be really complicated.

[Speaker 1]

Well, it's not that complicated because, you know, you have certain countries that have a tradition in mining and refining, like Sweden, Finland, the Nordic countries, right? So it comes natural to them. Then you also have countries that want to develop well on their value chain because they have already the industry.

So you have France, for example, that wants to open new mines because they have refineries and they are building plants there for recycling, for refineries. Then you also have Spain, which is a traditionally mining country. That's in the West.

And then you have the central Eastern European countries. You have Poland, which is a traditionally mining country for coal, but they also have raw materials. You have Romania, which also has a lot of potential and a lot of resources where things can be developed.

But you also have countries that don't really have resources. So it's not obligatory that all member states will do things if they don't have anything to do with them, in the sense that, you know, if you don't have resources, you don't need an exploration to do exploration work if you know that you don't have resources. So the access that the countries will do if, you know, they need to do because they have the resources there and so on.

Yeah, I mean, this is not an issue that came in the negotiations or anything that some member states would be against. No, I think everybody understands and it's actually huge opportunities to all the member states to develop this sector.

[Speaker 2]

And there is no issue with like, for example, the national legislation and conflict between a national legislation and a more like the CRMA that is more European?

[Speaker 1]

No, there is no conflict. You know, normally the national legislation, they look at mining in general, they have mining laws, but the CRMA act is more than a mining law because it covers the whole value chain. And yeah, there is no contradiction.

And then what we did is actually to complement and coordinate with the other legislation, like the environmental legislation, so that we don't contradict each other, but we just reinforce. So for example, for permits, we don't change anything in the environmental legislation that is there. We just want to be, you know, more efficient, the processes. So, no.

[Speaker 2]

Okay, perfect. Thank you. And you also quickly talked about France saying, for example, that they have like, I don't know, mining opportunities or more tradition, not tradition, but they have at least infrastructure for it.

And I was wondering, how, like what will be the role of public awareness and also public perception of it? Because, for example, there are countries like Sweden that have the infrastructure, the tradition, and people are maybe more willing to. With France, for example, historically, it's not really, there are a lot of public issues with it. So how do you think, like, what's the thing that you will use to manage public awareness and perception?

[Speaker 1]

Yeah, that's clearly, there is work to be done in this aspect, that we communicate better and more with the public so that they understand the benefits, but also how this is done in terms of mining, for example, that is done in a proper, sustainable way and without damaging the environment and so on. So one of the subgroups under the board will do exactly that. It's called the public acceptance subgroup, where we'll discuss with the member states methods and ways to actually reach out and communicate better.

The other element is that the companies themselves, they need to invest more in that, and they need to engage the local communities from the beginning of the process. And we have many successful cases of companies that were engaged with the local communities really from the idea, when the idea came,

and they supported the area and they were part of the process and constant and regular communication and explaining to the local community. And those, even in Poland, we have a great project like that.

So when you start early and you expect and you take the public as also stakeholders, part of this process, things are much different because they understand and they are part of the process and they have a saying as well. So this has to start early for all projects and then needs to be a continuous process of consultation and public communication. Yeah, absolutely.

[Speaker 2]

Because if I understood correctly, for the process, let's say if we talk about mining, it's like 24 months. And then there is the impact assessment, which is additional. Yeah, that doesn't count on it. But there's a social part. So public acceptance was within the 24 months. And that was so reason why I was wondering how it would be possible thinking at cases like, for example, I think it's Serbia, where there is some issue. But thank you. Thank you. Do you think that could be like the issues related with the certification scheme when you will implement it? Because I think that commission will also regulate it a little bit.

[Speaker 1]

No, we don't regulate. So what we do is we don't, we will not come up with a new certification scheme, but we'll just recognize the schemes that are already on the market. So we set up some criteria based on which we are going to assess the existing schemes.

And that's because we need, you know, when you look at the strategy project, they need to show the sustainability part is one of the criteria to be selected a strategy project that you show sustainability. And you can do that by showing that you are there to one of the existing certification schemes, right? Because they are there, they've been assessed and evaluated.

So that's the whole thing, especially for projects that are in third countries where you really, so that's the thing. We just want to recognize what is there. And then we'll see in time, we are working also at the EU level.

There is, you know, the standardization strategy and regulation. The idea is to develop standards, European and international standards, but that takes long, right? And we need things now. So that's why we have this provision related to recognition, only recognition of existing schemes.

[Speaker 2]

Okay. Really, really interesting. And I was, so I quickly tried or so in the file to know like the commission, what's the role. And I saw a lot of different mention in a lot of article, like commission is very central about it. And so I was wondering, how you plan to monitor everything? Like do you see any challenge related to the monitoring or reporting part of it?

[Speaker 1]

Yeah, we will have to do it. And that's in x. It's true, x have many obligations, let's say. But that's why x have the board where x are going to meet on a regular basis to receive the input from the member states and to be able to report. The idea of this board is really to having a type of operational board with relevant experts from the member states. So that x can really have discussions and decision making processes within the board. So that's how we are going to monitor that. And the member states will help on that, obviously.

[Speaker 2]

And in terms of governance and effectiveness of it, do you plan any like maybe challenge or like, do you think that the procedure is very flawless? I will say not flawless, but efficient?

[Speaker 1]

Well, we'll have to see. We haven't started yet. So yeah, for the moment, we try to, you know, the text has changed a little bit. And the colleges added things there that we still need to understand how to implement, to put them in practice. Not everything. I think it's easy. So we still have to, for many of these provisions, we still have to see how this will be in practice, basically. Yeah.

[Speaker 2]

And that's really interesting. And you also mentioned that one of the three challenges was also related to financing. So for that, if I understand well, it will be really like, let's say we have a strategic project here in in Belgium. And then you as a part of a EU institution and as a board, so we look at that strategic project, we'll see what are your needs, what are our resources. And then based on that, let's say in my project in Belgium, I need X million. You will try after that to discuss with like private or like a European institution to get the financing, right?

[Speaker 1]

Not only European. I mean, yeah, that's the idea that we do a blending mechanism and that we bring together private and public institutions, financing



institutions that can provide support. So what we are doing now is to really be in contact with financiers to have a good list of financial institutions that are willing to invest from the National Promotion Bank, National Commercial Bank, private funds, also public funds that have been opened and established lately.

You know that France has a critical material fund, Italy has one and Germany will soon announce it as well. So countries are actually trying to set up this fund precisely to finance raw material projects. So what we are going to do, we take the project and indeed we try to see who is willing to invest and what would be the best, you know.

We also have the European funds, right? Regional funds, cohesion funds, just transition funds. They can also be used to finance projects like in Estonia, for example, the Just Transition Fund funded the Rare Earths company. And in France as well, it was funded, I think, under the Just Transition Fund. Yeah, I think they also got something, I think they got something. So we will really look at all possible options.

[Speaker 2]

Perfect.

[Speaker 1]

And then there is another thing, you know, the projects that are labeled strategic under the CRMA and NZIA, they also get under STEP. So there is also some funding. So STEP is this strategic technologies platform that was adopted in March. And there, there are some money and then also the STEP says that also the cohesion funds should be redirected to finance and to support strategic projects. So that's a little bit of an opening there as well, in the sense that you have the cohesion funds, which are quite consistent and some of them, if the member states want, obviously they can be used to finance strategic projects.

[Speaker 2]

Perfect. Thank you very much. It's really insightful. And I was also, so we talked also about partnership at the beginning of our meeting. And there, like, I was curious to know, like, how, like, does a strategic partnership related with the CRMA ensure like mutual benefits for the EU and also third party? And how will you monitor? So like, not the safety, but like the environmental and social impact, because here in Europe, it's easier than in other countries like that are surely developing countries.

[Speaker 1]

Yeah. Yeah. Strategic partnerships, we do them because we need to diversify our supply, but in choosing the countries, we take into consideration several criteria.

The first, of course, is the resources. So the potential of the country, but also the presence of the member states and the interest of European companies. So it's not, we don't go to have partnership with a country where we don't have member states' interest or European companies that are willing to engage there. So that's very important, right? Because this is a Team Europe approach. We, it's not the Commission, but it's the member states.

We work together with them. The partnerships is true. We call them win-win partnerships because it's, sorry, it's, we try to develop local value chain. So the idea is not that you go extract and bring back in Europe, but you really try to develop processing in the country. So you try to help the country develop as much as possible along the value chain so that they can also benefit from this sector. And basically, in order to do that, we work on several pillars.

For the emerging economies and developing countries, we do investments. So we try to identify projects, and we try to support them. Then you do research and innovation. They are all very interested in our research and innovation results. They want to join the horizon, work that we do. They want to be part of this, you know, project that are developing innovative technology so that they can use them in their country as well. That's very important. Europe is leading on research and innovation in this sector. And we are the ones with the best technologies and machineries.

Like if you think of the northern countries, like Sweden with Epiroc and Sandvik, you know, this, and Metsatek from Finland. So this really, we rule the world on that. Then we work with these countries on ESG standards. So precisely what you are saying, to help them improve the situation on the ground, but also with the companies, because the companies that would do a project there, we make sure that they are, you know, they do proper, you know, sustainable practices they have. And normally the companies are very much aware nowadays, they will not take the reputational risk to do damage, right, because then it will kill them. So now more and more the companies that we know, they are very careful of what they do. And that's very good. So basically, they have much higher standards, the European companies, and not only the Canadians or the Australian, they have much higher standards than exist in the country. So that's already, you know, helps the country improve their record as well.

And then we do technical assistance for skills and training. So we train people so that they are able to work in these processing plants, for example. That's very important. And then we help with the infrastructure development. So you have to think that, you know, the EU money doesn't necessarily go into the mine to finance a minor project, but it helps, you know, to build the roads that goes to this mine or the energy infrastructure. And all this is, you know, is part of the development of the country in the end. And this we do, this infrastructure, we do it the global gateway funding.

[Speaker 2]

And do you see maybe a gap related with the procedure with the strategic partnership? Because I think that when I talk with the parliaments, they say they didn't, they were not able to write a lot about it because it was more like the commission and the country thing. So maybe do you see a particular gap in the CRMA about it?

[Speaker 1]

No, no. I mean, this strategic partnership are non-binding instruments, legal instruments. So it's a memorandum of understanding basically between the commission, basically the EU, not the commission, the EU and the member states.

We receive mandate, actually not mandate, but you know, the council endorses this. But as I said, they are non-legally binding instruments. So, and the parliament, it's true, they have no competencies in external, what we do on this non-binding instruments. That's why they say that they couldn't because they have no role. Sometimes we go to update them on where we are and what we do, but it's true that they are not involved in development of this MoUs. It's, we go to the council and we inform the member states. Yeah. But also it's not, technically speaking, it's not even an obligation for non-binding instruments to go to the council, but we do because, you know, it's the member states and we are together in this and we want to help the member states, companies and industry to, yeah.

[Speaker 2]

Perfect. Thank you for the explanation. I just want to come back to on something you said. So, about like, let's say I am in a European company that goes in Rwanda because you signed recently in Rwanda. So, to ensure that they are like reliable and that they are doing also well their activity, it will be

based on the reputation of the company and they're so like a certification scheme, right?

[Speaker 1]

Yeah, if the company is using one of the certified schemes, but then there are other means at the EU level to complement and to ensure traceability of the raw materials and that if they are, you know, you have the conflict minerals regulation, the corporate reporting directive that really try to identify basically to do the traceability of the raw materials. We don't do traceability with a critical material because you always make reference to those existing pieces of legislation, yeah. So, the big companies that will go to Rwanda to extract and to export into the EU, they will need to show this, you know, corporate responsibility and the reporting that how, you know, the whole, what we will do with the act is to identify the environmental footprint of this raw materials and then you can, yeah, you can go a little bit more into that and do the traceability.

And the second thing that we will do with the act is that the companies, the big companies, they do need to do this risk preparedness assessment. So, basically, they need to identify and to analyze their entire value chain, which is not happening nowadays, I have to tell you, we discovered. So, really, from the beginning until the end, so that they see where the vulnerabilities are. Because normally, they are aware of the immediate seller, right? But then the seller buys from another one and another one. So, basically, what we ask is that they know exactly the full value chain so that they know it's part of the traceability of the product.

[Speaker 2]

Perfect. Thank you very much. It's really insightful. And maybe on a social, more social aspect, maybe in the implementation of the act and maybe the act itself, do you see maybe any gaps or challenges that you could potentially face, except the one we already talked?

[Speaker 1]

Well, as I said, we need to first start implementing it and then we'll see where we are. We can have a discussion in one year time to see how it goes. But for the time being, I think there is a lot of things that needs to be done and we just need energy and people and will to actually start implementing and then we'll see.

[Speaker 2]

But yeah, because I thought that maybe like even if you like, for example, the board is not done yet or the joint venture, not joint venture, but joint venture demand, if maybe like you were already like thinking, I guess, at some risk, potential risk that you could face related to more social aspect, for example.

[Speaker 1]

Yeah, I mean, obviously there is always a risk of not public acceptance or protest or yeah, that's yeah, can always be there for different projects, right?

[Speaker 2]

Okay. And for the environment, maybe a more like kind of same question. If you like, you foresee, I would say some potential risk that you could face in the implementation of the act.

[Speaker 1]

Yeah, for the environment is that a lot has to be done by the member states and it's not easy and requires some investments, for example, to set up the recycling system for permanent magnets. For example, as it is in the act, it will require some major work because you need the technology, you need to set up the facilities, you need to know how to actually take that product, and then we need to have a labeling requirement so that you know what exactly is in that product, so that you know what materials are included, so that you know what you actually need to recycle and recover afterwards. So, the risk could be that this takes a long time and the member states, they don't have the capacity or the funding, the money to actually implement this.

[Speaker 2]

So, the financing part, also come back with it and also the capacity of the member states.

[Speaker 1]

Yeah, absolutely. Administrative capacities, knowledge as well, especially at the local level where things will be done. Yeah, that's one of the implementation challenges, absolutely.

[Speaker 2]

And how do you plan to overcome maybe this lack of capacity of knowledge in a more regional or more local, at least, level?

[Speaker 1]

Yeah, we actually look into that. At the EU level, we have the so-called technical support instrument and several member states already, where we actually fund capacity building in the member states, and several member states already asked and they have projects on how to build technical capacities in the sector. So, we are going to work and we have these funding opportunities to help build and support the administrative capacities.

[Speaker 2]

Okay, really interesting. And I was also wondering, I know that for some companies, maybe at the end of the value chain, so the ones that buy, I would say, the critical raw materials and then after that, I don't know, like automotive industry, for example, then use them. I think that's like the cost factor or the price factor could be like, it's maybe an important factor. So, let's say if we produce in Europe or like within a very sustainable way and very respectful as we are doing in Europe, how can you convince a big corporation that really tries to minimize its costs to buy at higher prices without incentive?

[Speaker 1]

Yeah, that's an excellent question, actually. Yeah, I think, I mean, that's something that we are working on now. Actually, we are trying to develop a premium market for critical raw materials in Europe and that's one of the challenges is through how you make the companies actually be willing to pay a little bit more for a premium product which is sustainable and clean instead of taking the cheaper dirty product.

So, I can only tell you that this is really now in the making and in the conception phase in DG grow. Our director general announced this kind of in Canada in March when we were there as one of the, you know, the goals that we have that we need to build premium markets that will make sure that companies have clean products. So, I can only tell you that you need to follow up this thing as it will develop but that's what we are on, something that we are working on now.

[Speaker 2]

Okay, I understand. And it seems like there is a lot of things to do like on financing parts, like more governance, pricing, environmental certification and stuff like that. So, I was wondering, oh, like we need, I mean, you need or we need as Europe to do it in five years. So, how is it possible?

[Speaker 1]

Yeah, it's a hard work. I have to tell you many, many hours of work and we have a great dedicated team in the unit but, you know, we are only 11. So, imagine that all this work is done by 11 people and, of course, with the member states and all that and other DGs that help us in this but, yeah, we have to manage.

[Speaker 2]

Yeah. Like in terms of impact, so for the strategy, I understood the objective and I was also wondering maybe countries like USA or like countries like China that are directly concerned, even more China, like how they can react, maybe is there not like not a risk but like a problem that can happen in the implementation. So, for example, in terms of reaction or if maybe, let's say, you signed or so, I think, an agreement with Chile, for example, but if China is already there, like...

[Speaker 1]

It's a competition. Yeah, it's clear a competition for these resources and for getting the assets. That's clear and it's true that we are not fast enough. They are faster and they have more money and quick money that they can put on the table while the US is quite slow. The Americans are also better than us but Europe needs to be faster in that. It's true that we have 27 member states and it's not easy, yeah, and they can take decisions for themselves much easier than the level of, you know, US or China but it's true it's a very hard competition and we are not always fast enough.

[Speaker 2]

And so, like, the differentiation element of Europe is really like trying to develop as a country itself and bringing value instead of just injecting like cash.

[Speaker 1]

But what we noticed also in Africa and Latin America is that they understand now that, okay, even if China goes quickly with the money and there is a lot of damage left behind and they don't have that much to gain, actually, you know. Well, they understand that our offer is much different and as you say, we work, you know, in a holistic approach for the country as well for the benefit of the country. So, what we notice is that they also turn more to Europe to help and to get to invest and to which is great. But as I said, yeah, we need to be faster in terms of funding and support for the projects and the companies that are there. That's true.

[Speaker 2]

And I was also wondering, also maybe more like national, like international level, I saw a concept that was like club of CRM.

[Speaker 1]

CRM club, yeah.

[Speaker 2]

And I was wondering, like, what could be impact of that specific club? Because at first it was maybe more like countries like US or Europe that were looking for resources. But after that, if I understood well, it was also a country like Chile, so rich country that could join. Do you see maybe...

[Speaker 1]

Yeah, all the countries of the partnership. No, actually check the news today because the CRM club actually was merged into the MSP forum and it was today the big event in Leuven actually.

[Speaker 2]

Oh, close.

[Speaker 1]

Yeah. Yeah. It's on margin of the TTC, the US TTC Council, the Trade and Technology Council, where this MSP forum was launched. So basically, the club doesn't exist anymore. It became the MSP. MSP is the Mineral Security Partnership. And there it will be this pillar called Mineral Security Partnership Forum, where you have many countries coming together and they will work on two fronts. One is the projects, the identification of projects and how we can support projects in the countries of the forum, and then policy dialogue. So how together we can work on standards, ESG standards, yeah, any other policy regulatory means to support basically the sector. So then you have many countries, yeah, that around 20, I think that there are part of the forum.

[Speaker 2]

Interesting. And I was maybe wondering, the last question was about like, let's say, I don't know anything about it, but let's say France has already a partnership with Chile. And it's a big country.

And so there are smaller countries like, let's say, I don't know, Bulgaria, for example, or even Belgium that maybe don't have those partnerships. So I was wondering if there is maybe some issues, even in implementation with the fact that Europe...



[Speaker 1]

No, no, we coordinate. And that's one of the tasks of the board is to discuss the strategic partnerships and to coordinate the European actions with the bilateral national actions so that we inform each other and we don't, it's not a competition, right? Because in the end, our strategic partnership aim to support the companies from the member states to develop projects in third countries. So, and if the member states go and they develop bilaterally, it's normal. I'm from Germany, they do that, the Netherlands. So there's no problem. The thing is that we need to coordinate and to make sure that we go with one voice.

[Speaker 2]

So if there is like willingness, capacity, resources, and also good coordination, the impact should be as expected.

[Speaker 1]

Exactly. So that would be the task of the board to really bring all this together and to work together, that we all work together on the same goal.

[Speaker 2]

And commission a little bit too, right? I, yeah. And I was like last, last quick question. So is there anything else you would like to add that we haven't covered and that you think that can be useful from your like EU institution and DG Grow perspective?

[Speaker 1]

Yeah, I think it's important that I think coming back to your point on the communication that we communicate better and more with the, and then we showed the benefits and the need that we have a proper implementation of the act in Europe. And that, yeah, we take the responsibility in Europe that we do here properly and that we develop our own national industrial base here. It's also something that will come more and more is the defense aspect. So we need to, to make sure that we are able to have what we need for defense purposes as well.

[Speaker 2]

Perfect. And maybe like who else would you recommend I speak with to get further perspective for my, my research work, if you have some names in mind or others?

[Speaker 1]

If you are interested, I mean, I think clearly us, we are, you reached well to us. It's, yeah, I don't know if you want to know more about the strategic partnerships in terms of and the connection with the global gateway and you can, you can contact the colleagues in DG INTPA. DG INTPA, yeah, the, the, how do you call the partnerships?

Yeah, DG. I can, I can give you the names of the unit that is working closely with us on that, so that you can understand a bit better how the European funding is delivered in third countries to support this work that we do. That's yeah.

[Speaker 2]

That will be fabulous and perfect.

[Speaker 1]

Including, including the environmental aspect, because for example, in Congo, we work on artisan small-scale mining, right. Which is in order precisely to improve the environment, the social, the labor, you know, aspects and so on. So that would be maybe interesting for you to, to know.

[Speaker 2]

Perfect. Thank you very much for your time and also your willingness to participate to the study. Your insight.

[Speaker 1]

And maybe you'd like to talk to the Swedes as well, no? Because they were the ones babysitting the act and taking it through the council and all that. And they can tell you a lot of, yeah, excellent details about the act and how they see it from the perspective of our member states in terms of implementation, because that's what you, you are working on.

[Speaker 2]

That will be perfect. But I don't really know how to contact them. I already.

[Speaker 1]

I can give you, I can give you the names.

[Speaker 2]

Perfect. That will be magnificent. Thank you. Thank you very much for.

[Speaker 1]

Yeah, but I'm impressed with your knowledge. I have to say, you really, you really know in details that the act and what we've been doing. So I'm, I'm really impressed. Well done, Gauthier.

[Speaker 2]

Soon joining the team.

[Speaker 1]

Thank you very much for your time and for your support.

[Speaker 2]

Thank you. Have a nice day and have a nice weekend.

[Speaker 1]

Send me an email so that I don't forget to send you the names. Right.

[Speaker 2]

Perfect.

[Speaker 1]

Easier for me to reply.

[Speaker 2]

Don't worry. I will send it to you. See you.

## Interview with P13

[Speaker 2]= Gauthier

[Speaker 1]=P13

[Speaker 2]

Thank you very much. And like before, like starting, before asking you to present yourself, I will give you maybe a little more context about the interview.

So, my name is Gautier. I'm 22 years old and I'm from Belgium. It's my last year of master's degree, so I decided to do my master's thesis on the analysis of the EU strategy on critical raw materials as defined in the CRM Act.

And with a focus more on the social and also environmental aspect of it. And so that's why I'm really trying to interview a lot of different stakeholders or different experts to get insight. I can also ensure you that this interview will be

like, everything that will be said will be anonymous and confidential. Even if sometimes...

[Speaker 1]

Okay, okay.

[Speaker 2]

Yeah. And also, like, maybe can I record just a voice like that? I can listen to it later on and just focus on the conversation.

[Speaker 1]

Yeah, sure. Sure, sure.

[Speaker 2]

Perfect. So, could you briefly introduce yourself and explain to me like your involvement with CRM and CRM Act?

[Speaker 1]

Okay. Yeah.<sup>P13</sup> I'm with Independent body of the European Union for raw materials since November of 2022. I started in the field of... Actually, I started my career at the World Bank, where I was involved in, let's say, mining sector development issues. But it was also mining sector development and socio-economic development. Because the World Bank, as you know, is active in developing countries. So, actually, the goal was to combine the two together. So, basically, improve the economic and social outcomes of mining industry. Then I changed to GIZ, which is the German Technical Corporation, that you may know, for almost three years. So, with the bank, I was six and a half a few years at GIZ. Then I was a while... I worked as an independent advisor and consultant until November 2022. And my role at Independent body of the European Union for raw materials is that of a coordinator for responsible sourcing activities. It's a bit of an... I mean, you know, it's... You can probably imagine different things about what that includes or does not include.

Even for me, it's not always very clear. But what is clear is that, let's say, the sourcing aspect, of course, gets more important for the EU, especially the sourcing abroad. So, in third countries, and that's what I'm actually doing. So, it's basically sourcing outside of the EU. And then, of course, the responsibility aspect is to be covered. Because for that, we have numerous guidelines and regulations, both state legislations, but also, you could say, out of a corporate governance aspect. So, that's just a standard that needs to be met. But what is responsible is, of course, I think you have different connotations. What is

responsible for one is not responsible for the other. So, that's also something where we don't... I mean, there's never a clear solution, right? There's always a lot of flexibility, I think, in that approach.

[Speaker 2]

And just quickly before starting with that for you, what does it mean to be responsible?

[Speaker 1]

Well, I mean, in the minimum term, you could say you meet national guidelines. So, there could be, in one country, if it's a European country, let's say France, you have a mining operation there, and you adhere to the French mining code. And since the French mining code also includes large sections of responsibility, you can say, okay, I met the legal guidelines, so I'm responsible.

If you source from a third country, then you have basically two, that of the sourcing country and that of the importing country. You could say the same. But then, of course, you have the ever-ongoing discussion whether that's enough, whether, you know, being normative good should go beyond legal norms. But even then, the question is always what is good. So, I mean, that's, you know, it can go very far, this discussion, but sometimes doing good from your perspective is maybe not good for the target person, let's say. So, it's, you know, it's a broad area. Always good for discussion. There will never be one final solution, I think.

[Speaker 2]

Okay, perfect. Thank you very much for that introduction. And I was also wondering, like, to what extent does the actual outcome of the CRMA align with its intended strategic goal and also, like, maybe sustainable practices? Are you satisfied with it? And can you comment on the feasibility of its objectives?

[Speaker 1]

It's really difficult to say because it's also quite early. I mean, the ratification has taken place not very long ago. And so now that needs basically to trickle down into national legislation, which also will take time. And as the act is of the moment, I mean, you have basically the usual terms that, you know, come around this topic of responsibility. It doesn't go too much into detail of that. I think what it does do, and I think that that's maybe the interesting part is, I mean, everyone says, really everyone, also Glencore says that they, you know, they work sustainable.

And also Glencore does it partly, not all the time, but partially. But I think what's interesting is that, you look more at the recycling issue, at life cycle content issue, and basically using raw materials from secondary sources. So tailings, recycling, etc. And that, of course, is also a way to minimize the footprint. And it's basically by definition becoming more responsible.

[Speaker 2]

And like, even if, I mean, it has been, let's say, accepted like close to one month ago, I think. So it's, yeah, it didn't start yet the implementation. Like maybe, can you foresee any like challenges that might arise in your field with the CRM Act implementation or even in general?

[Speaker 1]

Yeah, I mean, the biggest challenge is that, when we now look at third countries, is, and I had a discussion this morning about that, is, I mean, we have our standards, European standards, but whether it's always smart to insist on them is the other question. And as an example, I think you find this in many sectors. You could also use that for the garment industry. You say, okay, our standards are so high. And basically you are potentially, at least, let's talk in theory, in theoretical terms, you are scaring off investors who say, we can't meet the standards. So they go into, let's say, just a dirtier place.

The net zero gain would be nothing. So nothing for Europe and also nothing for the environment, because the standards will be kept low. And what I want to say, of course, it's more complicated than that, is that also for the case of Africa, where you can see now that we, when I say we, I mean Europe, not only the EU, but let's say European family in total, including industry, et cetera, there's a clear requirement to be more active abroad.

Let's just say in Africa. But for example, when you speak with the financial sector, and banks, also public banks like KfW or IFD, ProPaco, they are very, very hesitant to go into the mining sector in Africa for various reasons, but ESG is one of them. And so they say, oh, there's so many, you know, dark holes or areas we can't foresee.

And basically, everyone is scared to not meet ESG standards. And then for some European entity to come up with a scandal and say, oh, what did you do here? What is happening is that other countries, of course, China, is extremely active in Africa, including in the artisanal mining sector.

They buy also from artisanal miners, which then again, I mean, I think it fits to the theoretical example before, is that pay Europe is a by standard. And then

you can also say, oh, the dirty Chinese are coming and they don't care. And it's also awful.

But what happened, what is happening is that they do it. They have the business, including small scale mining, artisanal mining, large scale mining and everything in between. And where things are just happening and you don't improve anything and you don't improve the situation in Africa by just, you know, staying on the side and saying this is all very awful because nothing corresponds to our standards.

And now there is indeed a discussion and it doesn't necessarily mean to lower everything, but to be a bit more pragmatic, become a partner, become an investment partner, become a business partner, become an industrial partner. And out of that position to then gradually improve the situation, let's say ESG aspects in Africa, even more complex when you look at artisanal mining. But it's basically the same story.

You can sideline the sector and say, this is all very awful and not be influential enough to ever change anything. Or you start engaging. Of course, you need to, let's say, sort out operations that are really bad, that are obviously bad.

But if an operation in Zambia doesn't meet the Finnish standard, it still might be good enough. But when then people come in and say, oh, it doesn't meet the standards of Switzerland, Finland, you know what I want to say. Like highest ranking ESG standard countries and therefore we shouldn't do anything, then again, I don't think it's helpful for anyone.

So the question is here, how does Europe become a bit more pragmatic for its own sake and for different countries' sake as well? But that is not formulated in the act and therefore an act is also too chubby, right? So this would need to have regulations and national regulations, et cetera.

[Speaker 2]

So you would say that right now in practice, there should be a trade-off, I would say, between ESG vision or standards and also the possibility to get more investments. Because having high in those countries ESG standards, in fact, that can put, let's say, some fears to the investors if they don't meet those standards. And so at the end, the impact is zero instead of having at least a small impact in those countries. And so it could be interesting to have a vision of partner and so by partner, you mean like joint venture or like...

[Speaker 1]

Oh, I mean, yeah, on any front. So when I said for Europe to become a partner, now let's say in Africa, it can be as an investor, of course, also on government level, bilaterally, and development partner, a co-financing partner, an industry partner through joint ventures, an industry partner in that you have off-takers, let's say for mining operations, anything. But you need to be strictly speaking in the business in order to make any arguments.

Because as it is now, if you speak with African Minister of Mines, they are maybe slightly annoyed by Europeans to say this and this should happen when they don't even do anything. And so they more or less plainly say, well, why don't you start engaging, investing, and then we can talk. So you're either in the boat or you're not in the boat, but in order to have the seat in the boat, I think you need to sometimes step down from your high saddle, right?

That's what I mean. So I'm not saying necessarily to sacrifice anything, but to be pragmatic in the end, to say, okay, maybe we reached that level in five and 10 years. But even in this 10 years, you start there and then gradually you improve. So every year you can make things better.

[Speaker 2]

That's really interesting. And also talking about more like partnership with those countries. I was wondering, how do the strategic partnerships in the CRMA ensure mutual benefits for the EU and also third country, especially maybe in terms of social and environmental aspect? What do you think about the strategic partnerships related with the CRMA?

[Speaker 1]

Yeah, of which there are three or four signed partnerships in Africa. I think there are seven or eight globally. Of course, I mean, when you talk about Argentina or Chile, I think they don't need this kind of technical partnership because they are themselves very advanced mining countries.

And also Chile, I think, has really aligned its mining industry with wider social interest. But of course, it's more complicated in Africa. But absolutely, when you have a partnership, then you can also address those things that we discussed.

But then it's also important that the partnership is not only on paper. And then again, you say, oh, I'm signing something where I am the good guy and I teach you how to be not so a bad guy, but you need actually to do something on the ground. And that also means, as I said, engaging really in and with the industry.



[Speaker 2]

And let's say like with your experience on the field and also the relation and discussion that you had with, for example, African partners, what is the value that can bring Europe to them with this partnership? When they say a bringing value for the EU and also third party countries, what do you expect by this value creation?

[Speaker 1]

I mean, what Europe can bring is bluntly expressed, it's money, a lot of it. And not just money that you give to the government, but for instance, infrastructure. So electricity transport, energy transport is always a big issue in Africa and also for the mining industry.

And the EU, for example, has this global gateway envelope, which at least on paper has a lot of funds in it. It's, I would say, a very big negotiation stone that you can bring to the table, but also in general, industrial expertise, because Africa, of course, wants to develop its downstream industry. So let's say we don't want to be only a raw material exporter, but we want to start processing, but you need to have the expertise from somewhere.

So this is what's being done in Europe since 150 years. And again, to very high standards. So that's something, let's say joint ventures, that is also win-win.

So it's market shares for European industry is getting hands-on expertise technically and managerial advice for African partnerships. So basically, I see Europe as a technical and financial partner, first and foremost. And then with it come all the other aspects, but like environmental aspects in mining and processing, I think also has to come from industry first and foremost, because they know how to adhere to very strict standards.

Let's say just in water treatment. So if you just say, we make a program of 100,000 and we engage a couple of NGOs to talk to you how you should behave environmentally friendly, then again, you don't really meet any desire of the African partners because they really want to do things on the ground and go ahead. Also in terms of economic development.

So I think it's important to really not de-link the ESG from economic progress.

[Speaker 2]

And do you think that those kind of partnership, when you do partnership with Europe and third party countries, like in Africa, it helps them to, let's say, step up in the value chain of raw materials? Or do you think it's more like you bring

them some infrastructure, some ESG practices or the knowledge, but you don't really help them to go up in the value chains of materials?

[Speaker 1]

It should be all of what you have mentioned and not necessarily only parts of it. But in the end, a partnership, each partnership is new and basically the African side is also clearly saying what they want. So in theory, they could just say, we just want to have a part.

But they don't, I mean, all, pretty much every African mining country has kind of a mining vision or mining concept or mining sector development strategy, like different names. But all of them basically say, OK, we need to use the mining industry as an engine of, let's say, broader economic growth and development. I think really all of them do that.

And let's say this national strategies is also, of course, always an entry gate for EU and the partnership with this respective country. So you basically say, OK, we can help you to basically implement the strategy that you have, but that you have rather uselessly laying as a piece of paper on your desk. Because, of course, you need a lot of expertise to, you know what I want to say, to transform the strategy and give life to it. And I think this can be done through these partnerships.

[Speaker 2]

OK, it's really interesting. And maybe you're so like, do you think that's another level of details should have been added in this CRMA or some that would you have put more details in it?

[Speaker 1]

In the partnership?

[Speaker 2]

In the CRMA act in general, like, do you think like it's fully complete or would you have loved to see more details or definitions for some parts, maybe related to a strategic partnership?

[Speaker 1]

Yeah, I mean, the strategic partnerships are not very detailed, but I think it's good. Because it leaves it open. I mean, the problem, of course, with a law is when you get too detailed, you also have less room to manoeuvre.

And then in the end, it's, you know, it's an output by a bunch of lawyers that, of course, don't have, you know, the complete detailed knowledge about everything. So I think it's good to be not too detailed. What is missing to my understanding and still missing is any word of EU financial support.

And because I think there is reference a couple of times to support projects that are deemed to be strategic. That is a case by case decision. So one project can be strategic.

The other one doesn't need to be strategic. So what funding mechanisms would the EU use to do that? And I've read one calculation that basically says, OK, the EU is missing so and so many thousands of tons of CRM in order to meet these net zero obligations.

So, I mean, you can make a rough calculation, say you would need so much investment. If I'm not mistaken, it was an amount of billions, like two digits. I mean, it doesn't need to be taken too seriously because it was a very crude and rough calculation.

But in any case, it seems to be pretty clear that if you want to finance strategic projects, you need to have some money available. I mean, Global Gateway is one source of funding, but it wouldn't be the only one. It's also restricted in what it can do.

So this hasn't been addressed. There were, because we have also seen like previous versions of the, let's say, draft acts that mentioned funding clubs and funding and exploration funds and that fund and that fund, but they disappeared. And so there isn't really a clear view on what funds can be accessed for what purpose.

On the other hand, I mean, the EU is so complex that you always have, you know, some money sitting around somewhere. You could even say, you know, you have like technical assistance funding for an African country or for an African region, which you could use for this and that. But it's not, doesn't really make planning very easy if you don't have a dedicated funding tool, which we don't have, which the EU doesn't have.

[Speaker 2]

Yeah. And the funding parties, is it also really important for the strategic partnership when you do a partnership with a country?

[Speaker 1]

I would say so, because in the end, one goal of the partnership should also be to, at least for the European side, should also be to increase the export of, and I don't want to say raw materials, but let's say just critical metals to Europe in whatever processing stage. But of course, it requires a lot of funding, starting with exploration, starting with building mining operations and all the beneficiation plans. And the ancillary infrastructure, because it's such a problem in Africa, because many, like really huge regions are just void of any energy or transport infrastructure.

So, and that's exactly the thing. If you then would just say, you know, we give you a nice strategy on paper again, but you're not backing up financially, then what would you say as an African party would say, well, thanks for the discussion. But I, you know, rather pick up my phone, direct hotline to Beijing to proceed because there it's actually, it's quite simple.

I mean, African governments say what they want and then in three years it's done more or less.

[Speaker 2]

Okay. So that's really interesting. So even if a legislation is very complete and like, like even, or even a strategy, like there is also a point where the implementation is super important because you need to translate it into the world.

So that's really interesting. And I was also interested in like when you do like a responsible, like sourcing or the responsible, like even like that's kind of responsible, even in a partnership, I would say like, how can you monitor in other countries that the activities are well done, like in a responsible way? Because I understand that in Europe it could be easier that in some country where the level of governance, like a lot of, for example, African countries is quite low. So how do you manage that?

[Speaker 1]

Yeah. So you're totally right that in Europe it's, it's working very well because you have, let's say, public authorities working their way up from the capital to the regions to actually the, let's say, the factory level by inspection and similar things. And you have, like with the technical surveillance requirements, like for every machinery that's operating that needs to be surveyed every, I don't know, two years, depending on what it is. And so, I mean, first and foremost, it's the responsibility of the state to do that. And that's the same in Africa.

But of course, in Africa, the capacity of the state to do so exists only on paper, largely. And most, let's say, Ministry of Mines or environmental agencies, they have, I don't know, five people, 10 people. And they're well educated, in fact.

I mean, on the mining side, you always find, you know, really good geologists and mining engineers, but they are basically confined to sit in the ministry in the capital and have no means of transport or anything. So there's, let's say, the layer of staff is much too thin, there's no means to displace the people, not displace, how you say that, to enable them to move. And then, especially when you talk about mining, it always takes place in remote regions.

Of course, you have people for like large scale prestigious mining project. Yes, the state would say, okay, we, you know, we built an office just for this mining operation and started with three people. So not a problem, but the smaller mining operations basically completely under the radar.

And this is why you have those maybe questionable institutions like now the EU CSDDD, the diligence directive, that basically try to shift this responsibility to corporations that sit abroad. You basically say, you know, things are happening, which are not according to the law. So, you know, firm A in Denmark is responsible for that.

Well, you might say it's a good solution, but in the end, it can't be the true solution, because the custodian of welfare of people is always the state and needs to be the state. So you can't replace that with, you know, foreign entities and firms. And it's also not really, in my view, it can't really be the obligation of a company to fully understand up to the lowest detail what's happening in the supply chains.

But now this is the law. So I'm from Germany. Obviously, we have we had it before on a national level, the LKSG law, which is basically similar as the diligence directive.

But you might also say in lieu of state monitoring capacities that might help, we'll see. The other, I mean, what, for example, when I was in the world, what we tried also to do is basically build capacities of mining communities to monitor, to be able to monitor or to understand what are the contractual obligations of a mining company and whether those are being met. I think this is more in my view, it makes more sense than those laws that I was just mentioning, because then again, as a mining community member, you have a direct interest.

And in a way, you have even a legal justification to monitor, because in the end, you are supposed to be a beneficiary. So you want to control whether you are a beneficiary or whether you're being cheated. But of course, it's not a very easy thing to do.

But in the end, then again, I mean, since many years, all the development organizations, like UNEP and World Bank, they also try to build state capacities to improve that. But for a reason, I can't even really tell you why it doesn't really work that good. I mean, I think one problem is that as soon as you build the capacities of some smart, young government employee, they might be tempted to go to the private sector and get, you know, five times the salary. So you invest in people that disappear very quickly. So that's the, I think that's the issue. And so there's different solutions. I don't know which one would work best or probably need a combination.

[Speaker 2]

And so what do you think about certification schemes for some projects? So you told quickly that if I understood, it should not be like the responsibility of the company to monitor it.

[Speaker 1]

Well, the company abroad, let's say if you were an OEM in Europe and you probably have, like when you build a car, you have thousands of suppliers, like first level. And then those first level has another thousands of suppliers at the second level. And to basically say, you know, there was labor mistreatment at a site in Uttar Pradesh, 85 kilometers from the next village, and then make a company responsible because you say, okay, you have indirectly been contracting that or subcontracting.

I don't even find, I don't even think it's very fair, but it's easy to use that as a scapegoat. So for me, it's a bit of the wrong approach. But of course, the company, in that case, in India, that is running the site, whether it's a garment site, of course, that has the responsibility.

So I don't want to say the private sector doesn't have any responsibility. Of course, they have. And the problem is that, you know, there was this big, what's that in Bangladesh or Pakistan, where this building, the factory is basically collapsed. No, there was a fire, and it turned out all the fire exits have been blocked by like laboring desks. A few years ago, it was a huge scandal. It was either Pakistan or Bangladesh.

And of course, this company, it was a national garment company that then delivers to international government, you know, like textile labels. Of course, the building was illegal from the first place, because even Pakistan or Bangladesh have very strict laws that say, you know, you can't do this, and you can't do this, but you must do this. So it's their own paper.

And of course, if you are private, an entrepreneur, you need to follow the laws. But of course, they know, no one is ever going to show up to check. So I just do whatever I want.

So, yes, this company, in that case, the Pakistani company or Bangladesh company, has 100% responsibility. But I think this responsibility is in a way being diluted, the further you go up the supply chain, simply because you yourself don't necessarily know what's exactly going on. Certification schemes indeed can help quite a lot, because not everyone, not every scheme, but like the higher quality ones are audited by third independent parties.

And in that case, of course, you could say, I mean, now it's textile industry as an example, but I think you can apply this to other sectors as well. You would say, okay, is this garment factory audited? Does it have a certificate? And you say, okay, it has, and this certificate basically includes a third party audit, which is being done every two years. So a team of technicians that would survey the whole site and say, yes, this is according to the law. I think that's a very good idea.

And of course, you have this in mining as well. There's a lot of, I mean, every metal, I think now has its own standards. That I think is a very good initiative in a way, basically, I don't know why it displaces the state, but I think it's a very good instrument to complement for, let's say, lacking state capacities to do the monitoring. And it even can go into more detail because depending on what standards you pick, especially on ESG, they can be very detailed, very complex, very demanding. So I think it's very good. The problem always is that who pays, because they're quite expensive.

And then especially when you go to the smaller mines, you have the auditor teams that have to go there, that have to spend days and weeks on sites and have to do their report. So you ask a small mining company to pay, but normally they say, why should we pay if the benefit, it's like a bit of responsibility shifting. The beneficiaries are in Europe, while the Europeans will say, well, but you are the beneficiary because by that, we basically ensure that you have better ESG standards.

There hasn't really been a clear solution, but it's also true that, again, you have costs. So who is taking care of the costs? But largely, I would agree that certificates are quite good.

But again, there isn't in my view really one tool that solves all the problems because you always have some kind of challenge or problem that comes with them.

[Speaker 2]

It's very interesting. And you also talked about, let's say the cost of it. So I was wondering, like, I don't know, but I mean, I guess that if you do like responsible sourcing compared to non-responsible sourcing, it could be more expensive. So like at the end, like when you are like, yeah, compared to those, like there is a premium, I guess. And like, what's the implication of it? Like, or can you like, what's the problem related to it or the impact related with the higher price, if there is any?

[Speaker 1]

Exactly. Not really clear. In this discussion this morning, I was, you know, the Fairphone, I think the company is still working.

[Speaker 2]

I don't know. I know about it, but I don't know if it's still working.

[Speaker 1]

Exactly. But in any case, they didn't, I mean, they didn't, you know, people didn't abandon Apple for the Fairphone. I don't want to say that Apple is, you know, producing irresponsibly.

Maybe they have even higher standards. But the thing is, especially if you look at the mining supply chain. So if you would buy a copper cathode, like, you know, this copper sheets, which you need to build like a transistor out of it. And then like you are in the middle of the supply chain. So you use a copper cathode, you build out of it and then you sell on. You would need to have someone who is willing. And let's say you follow very strict ESG guidelines and therefore you have a higher price, then you would still need to find someone who is willing to pay you the higher price. And that entity needs to agree with an OEM sooner or later to say, well, you get copper, but it's, you know, it has very high standards. It is the question of whether or not this is being done.

It might be in some cases, especially when then a final producer can say, look, customers, we give you something costs a bit more, but therefore you get this



and that. I mean, on a simpler stage in every supermarket, you have fair trade coffee, et cetera, which is sometimes, I mean, 50, 70% higher in terms of price than the big brands that, you know, do whatever. And they're being sold, I think quite good.

But yeah, I think customers need to be very aware that it is the better alternative in order to make them buy. I think you will always have different niches in a market where you have, you know, parts where you can apply higher standards for higher cost and other sections of the market that don't cover it. But also this morning we basically discussed the unknown from a battery.

So that's the negative part, right? For which you need graphite. And almost all of the graphite is being processed in China.

And so we spoke with a graphite mine that basically said, well, they would like to sell more of the graphite to Europe, but they know that no graphite processor will ever be able to meet, to get basically environmental permits to do it in Europe, because you, I forgot what the technology is called to basically do the chemical processing, because it's very energy intensive, you need a lot of water and water treatment. So I said it's basically impossible to find European off-takers because they can't do it.

Which then, again, tells you that sometimes, and the Chinese, I mean, they have improved, in fact, the environmental impact on that as well over the years. But sometimes it tells you that, again, I think this is where we started the discussion. If your standards are too high, you get really nothing. And then you still have everything processed in a country where standards are still quite low. So again, you have not really had the environment on a global level.

[Speaker 2]

That's super interesting perspective. And I was also wondering, maybe in terms of sourcing, I heard that there was a system called like joint purchasing. And so we're like, in fact, like I think like the EU aggregates the demands. And do you think it could like influence like, like sourcing practices or what could be the impact of it? In your opinion, like aggregates the demands at the EU level?

[Speaker 1]

I'm actually not aware about that. It's the first time I hear it. But always good to learn something new. So this is public or this is private sector industry?

[Speaker 2]

It's just like in the ACT, they were saying like, that they were thinking to a mechanism, in fact, to aggregate, release the demands in terms of EU level. So to be able maybe to have more power about it and...

[Speaker 1]

Ah, market. Yeah, more market sharing power. Well, yes. I mean, we, in fact, also discussed whether the EU itself could be kind of a buyer, like an offtaker. Or if the EU could set up basically like a power state entity that buys on its behalf, it might work because... So once a mining, let's say an exploration company or that is in the process of building the mine.

So that's somewhere in between. The biggest problem is to get financing. I mean, often banks are only willing to grant financing when they can show they have a buyer. So finding this buyer is really tricky. But of course, when you are a buyer, you want to know that, well, how much can I buy and when? But if this mining company doesn't have the finance to build the mine, they can't tell you as the buyer when and how much.

So it's always this catch-22 problem. Especially then, again, in Africa, because, you know, funding entities are so super cautious. I think in Canada, this is much less of a problem. But you could, for example, alleviate that problem with a public entity basically being the offtaker. And then you would basically store it in Europe and you could forward sell it. But of course, that's only a theory because it's not an act.

Not yet. But like this funding mechanism, it might find a way into the act. So it's not off the table. But maybe this is also similar to what you were mentioning.

[Speaker 2]

Yes. I mean, I knew that. I know that they were discussing also about that last Friday at the commission. And right now, I was also wondering like, how, it's work maybe more on a national level. So you don't buy those materials from in terms of like as a state entity. It is more like the company that buy directly the materials.

[Speaker 1]

Normally, yes.

[Speaker 2]

Okay. Great. And I was also thinking about like, what do you think, what's your perspective about like what was called like the CRM Club, where you have like all those third countries and they're so like countries more developed like or

even like European countries that are together in that initiative. Do you think it can have positive impact or negative ones?

[Speaker 1]

Yeah, no, I think it doesn't need to hurt. But to my understanding, the CRM Club is so far is only a terminology. I don't think it has really any more substantial meaning of the moment. So in a way, it's on hold, at least from what I understood. But depending on how you want to, you know, bring it to life. Yeah. Sure. I mean, there's so much need for coordination.

So it could have its use. Absolutely.

[Speaker 2]

So it's really depends in terms of implementation, if I understand. And I would say, yeah. And so like, I was wondering maybe in terms of when you do like sustainable sourcing, like or even in general with the CRMA, like what they propose, what do you think are the gaps maybe related in the social aspect with it?

[Speaker 1]

Oh, I would say in principle, it's the same as we have with the EU. Like the social regulations on paper, again, pretty much to European standards, maybe not so much, but pretty well. But again, you have the monitoring problem and you have the supervision problem and you have asymmetric information between different actors and the value chain. So I would say it's a one to one, the same issue, whether it's environmental or social. But I mean, most of the social guidelines relate in some way to ILO directives or guidelines. So they are pretty much universal standards.

[Speaker 2]

OK, perfect. And maybe a last question. Like here, it's like, what do you think about like the circularity for responsible sourcing, like also circularity measures that are taking place?

Do you think that could be a good perspective instead of more like looking outside Europe or even like mining?

[Speaker 1]

Yeah, absolutely. No, absolutely. I think I mentioned that, you know, there is some emphasis, I think it's 15 percent on recycling, but it also includes like using tailings.

And I mean, depending on the metal, because you have so much more superior, let's say, extraction techniques than maybe a mine had 50 years ago that were producing its tailings. So sometimes those tailings can be really quite, you know, fertile ground for a lot of metals. And no, I think it's absolutely right.

I think one shouldn't overemphasize that. So recycling will not be able to, you know, give you 60 or 50 or even 40 percent of what you need. It will be rather small, maybe 10, 15, 20 percent, because of when you speak.

But of course, this is changing. But we had a recycling engineer as part of our team, unfortunately left. But I think for lithium batteries, they say it's like 10, 15 percent that you can recycle.

But in order to recycle, you need to produce a huge amount in the first place. So it will take some time until you have a large enough stock that you can recycle. But in general, I think it's good.

[Speaker 2]

Perfect. Thank you very much. And is there maybe anything that you would like to add and that we haven't covered and that you think that could be useful?

[Speaker 1]

I mean, we covered this. I think the recycling aspect was quite exciting, but it was really good to see that it's in this, you know, that the act is basically saying so and so much exploration in Europe, so and so much processing in Europe, so and so much recycling Europe. And I think maximum 65 percent of one metal from one country to reduce the dependency.

No, I mean, all in all, I would say the act is going into the right direction now. You know, it needs to be seen how that is going to look in real life, because it always takes a bit of time until such a super tanker is moving. But then in general, I think that Europe slowly is waking up to its obligations and its position. So one important step has been taken.

So I just wanted to ask what the degree that you are doing?

[Speaker 2]

So right now, in fact, I'm doing like two master degree and doing one in business engineering and the one in international management. So it's like two degrees.

I know that I'm not like a geologist or a mining expert, but I thought it would be a great opportunity to look at that because there are a lot of impacts. And just a

question that came up to my mind, in fact. So like China, for example, woke up for the problematic like years ago.

And with their belt and road initiative, they have been in a lot of influence in Africa, for example. So a question I was wondering, in fact, is, is it not just like change, like instead of like changing supplier, it's just like instead of going to China, you go to, I don't know, Rwanda, for example, but Rwanda has been so influenced by China. So that's the end.

You don't really change anything in terms of risk. I was thinking that I don't know. It's just something that came up to my mind.

[Speaker 1]

Good question. Yeah. Possible. It's difficult to say, but of course, yes, China has influenced those countries quite a bit. Yeah.

[Speaker 2]

Yeah. Because yeah, it just came to my mind about that.

[Speaker 1]

But, but yeah, it's an interesting aspect. Yeah.

[Speaker 2]

And yeah. So maybe what would you recommend if you have someone in mind that could bring us, bring me like another perspective or so for my thesis? Do you have someone in mind?

[Speaker 1]

On what aspect?

[Speaker 2]

Like in general. So if you know someone that could be useful, maybe like someone that has ground experiences or like in finance or like just someone that you feel could be interesting for that topic.

[Speaker 1]

I surely find some name not, not popping up in my mind right now, but if you just drop me a very, just a one line reminder email, then I will, I will have a look.

[Speaker 2]

Perfect.

[Speaker 1]

But I'm sure I'll find someone.

[Speaker 2]

Thank you very much, P13, for your time and also your perspective. I really like that. I really love also the perspective about like ESG standards in other countries. It was, it was great about it. So thank you very much, P13. And I wish you a lot of success also for a project.

[Speaker 1]

Well, same for you and to see this.

[Speaker 2]

Thank you, P13. Have a nice day. Ciao, ciao.

[Speaker 1]

Okay. Ciao. Bye.

Bye.

## Interview with P14

[Speaker 1]= P14

[Speaker 2]= Gauthier

[Speaker 2]

Perfect. So just before asking you to present yourself, I will give you a little bit of context about this interview.

So my name is Gauthier. I'm 22 years old from Belgium. And for my master's thesis, I decided to focus on the analysis of the European strategy for critical raw materials as defined on the CRM-A, and with more focus on the environmental and social aspects.

So I really tried to interview different stakeholders. And I had an interview recently with Madam Madelina, and she also advised me to contact you about it, which is really interesting, because Sweden and the CRM Act are really linked, I would say. So I can also ensure you that everything that will be said here will be confidential and anonymous.

And if I know that's maybe not necessary, I prefer to tell it. And also, can I just record the voice like that? I can already send it later on and focus on you.

[Speaker 1]

That's totally okay.

[Speaker 2]

Perfect. So maybe could you briefly introduce yourself and explain me also your involvement with critical raw materials and CRMA in general?

[Speaker 1]

Yeah, so I am head of department at a Geological Survey for a department called Mineral Resources. We have three divisions. One is economic geology.

The other one is geophysics. And those two are doing a lot of mapping and geological modeling when it comes to bedrock geology. And of course, they are really important then in building up new knowledge about Swedish geology in order for exploration companies to de-risk for them.

So they know maybe not in detail, but at least a little bit better where to go and explore. So that's their work. And the third division is called Mineral Information and Mining Industry.

And they are like a bridge between geology and society. And their job is to... So we have a huge drill core archive up in the north of Sweden where we collected a lot of drill cores from when the state did exploration in Sweden.

But also we have donated drill cores from companies who have been here, worked for a while and then decided to stop to explore that area. So they have... And they give access to new companies coming in in that particular area so that they can sample and map drill cores.

And we have a lot of... We have a lot of maps and we have a lot of reports and field diaries. And it's like a goldmine in itself actually. So we have that, but we do also government investigations. We answer a lot of inquiries from government and from other authorities. And we support the government offices like in last year when Sweden had the presidency. That's when the commission released the Critical Raw Materials Act. So we supported our government offices during the negotiations.

[Speaker 2]

Okay.

[Speaker 1]

So that's... So me and another colleague were... That's about the only thing we worked with actually for a few months. But also some other colleagues of ours

at the survey supported us. So that's my involvement in the act or our involvement in the act.

[Speaker 2]

That's really interesting. And as you worked on it, I was wondering like to what extent does the actual outcome of the CRMA align with its, let's say, strategic goals, particularly like, I don't know, like securing CRM and also like sustainable practice. Are you satisfied with it? And maybe can you comment or sound the feasibility of its objective?

[Speaker 1]

I think that it's a really good start. I was, not only me, but I was surprised when we worked with the act. Because mines are not such a popular thing, I thought, in the EU.

So I thought that this is going to be tricky. We're going to have to do a lot of explaining on why we need mines. But I was surprised because at least everyone around the table during the negotiations, they well understood why we need mines, why we need raw materials, that we need to speed up recycling.

Because they had understood the geopolitical context and EU's dependencies on raw materials. So that was not an issue during the negotiations. The issues were more on how do we adjust.

It was really good. The decision from the Commission was really good from the start. I think it was quite well balanced and thought through.

What we did was adjustments so that it could work in different political systems. Like if your country is a federal country or if it's not a federal, if it's only one sort of level. Or also if you're a very small country with very little resources in the ground, or if you're a big country with a lot of resources in the ground.

How can the small country survive the workload? Do they have to do all the mapping when they already know they only have limestone, for instance?

[Speaker 2]

Okay.

[Speaker 1]

Which is at the moment at least not a critical raw material. So it was that kind of adjustments that took some time and some thinking actually on how to figure



out. Other things were to strike a balance between the need for transparency versus the need for business secrets or what the companies need to keep to themselves.

So we tried to find a good balance that everybody could accept because there is a big variation between different countries in that sense. And also other things that you might be more interested in was on environmental sustainability to find a balance there too. Because if you have too strong demands on environmental performance, then you can't do anything.

So where do we sort of balance this out so you can actually have industrial activity but still have high environmental standards? And also on the social side, of course, how do you balance local society to global climate needs? So it was more that kind of balancing and we had a good start with the act as it was. They had done a really good job. It wasn't so tricky, I would say.

[Speaker 2]

Perfect. Thank you very much for the insight. I will have some questions about what you have just said about it. And I was before that wondering why this act was really important for Sweden? Because it's a country that has already some mining and I really want to understand why it was important and also what would be the impact of it on Sweden?

[Speaker 1]

So for Sweden, it was important because we are a mining country since I think our oldest copper mines started 2,400 years ago. And then we have been mining since then. So we are a mining country.

It's one of our large export industries. But we also have other industries that need raw materials for what they are producing. So I will send you this.

I'm on my phone now. I'm not sure I can share presentations with you. But I will send you one after showing the import dependency for EU and where the raw materials come from that we have that we are dependent on.

And one of those countries is China. And they sort of monopolize a whole bunch of those raw materials. So it's really weakening the independency for the EU countries.

So for Sweden, of course, it's a business opportunity. But it's also necessary for the survival of both Sweden's and EU's industries. And so that was part of it.

And we have also seen and I can talk a little bit more about that. But we have also seen that with environmental law developing in EU, we have almost over implemented in Sweden. So it's becoming more and more difficult to open mines, but also open recycling facilities and other things like building power lines or opening other industries, because the environmental laws are so strong and so heavily implemented.

So all industrial activity struggle to sort of get space. And also permitting processes have become really slow. So we wanted something in Sweden that could guide projects through a permitting process much quicker than we have today, but not with lower standards.

It's just that we have complicated things. And the process is not predictable anymore. And it's quite non transparent.

So we wanted to have a clearer journey for a project through from application to permit or not to a permit, of course, you can get the know as well. So that's been a struggle for Sweden for maybe 10 or 15 years. And it's become worse all the time. So this is an opportunity for us to fixing our own permitting processes with some pressure from the outside, I could say.

[Speaker 2]

That's really interesting. I understand right now better why it was important for Sweden. And I was wondering maybe if you foresee maybe any challenges related to the act or maybe some gaps within it that you would have loved to add some things into the final, I would say, finalized text?

[Speaker 1]

So the text for CRMA is finalized now and it's signed and it's going to be published. But I think now the so what you hear over the last few months, the discussion among the industry is so okay, so this hasn't started to work yet. So we're not sure exactly how it's going to play out.

But at least the industry sees that there is an intention from policymakers to make improvements. And we also have some other work going on internally in Sweden to improve. But they read those signals in a positive way, I would say.

So that would help them decide if they want to invest in Sweden or somewhere else. And we see that we get more investments now in exploration, for instance. So and I don't think you can, it's not only because of the Critical Raw Materials Act, but it's part of it.

The signaling value from that act and how our government has worked with it. And they're really clear about that they see mining as important and also recycling. So that's the strong political signal that this industry is important and that raw materials are important.

I think it's really important for the industry when they make decisions. And also, but if something is missing, so yeah, so what we hear now is more of, so before the complaints were about the permitting process.

[Speaker 2]

Yes.

[Speaker 1]

But now we hear more about worries about capital to invest. So now people are feeling that the permitting processes may become straightened out. But now there is a worry that there isn't enough capital to invest in in those projects and other projects, of course. But it's like a global issue that there isn't so much capital for this kind of investments right now.

[Speaker 2]

Okay. So like investments is really important with some of those projects. And that's maybe something that is lacking with the global structure of the act that it doesn't propose that specific points, right?

[Speaker 1]

Yeah. And it wasn't finalized. It's quite strong signals in the act that financial instruments will be available. And they are becoming available now, but that when we worked with the act, it wasn't obvious. And I think we're not all clear about how it's going to work forward. But for instance, the European Battery Alliance has a fund of 500 million euros, I think. And both, is it France and Italy? And maybe Germany, they have installed their own funds. And we have in the US, you have the Inflation Reduction Act, coming with funds and in Australia and Canada, you have tax deduction. And so a lot of countries are doing things to help or stimulate investments, and also putting funds on the table. And we're not sure yet on how, about how that's going to work for Swedish companies, for instance, can they get access to these funds? Or is it only the French company getting access to the French fund?

So, you know, a lot of insecurities there. And how will the Swedish government act? Because traditionally, we are very much against state aid, for instance, as

a country. So, will we lose competitiveness now on our edge because the others, other countries will move forward on this?

[Speaker 2]

That's a really interesting point. And I was also wondering if you see any maybe potential challenges or gap with the CRMA more related to the environments in Sweden. So, you already mentioned that, in fact, if you are too strict with the environments, it's too, it's become too risky for like investor, but I was still wondering if you see maybe something missing about that? Or like, what could be the impact of the CMA on the environmental aspect, in your opinion?

[Speaker 1]

Oh, yeah. So, every time you start a mining project, when you actually start mining, you will have some impact on the local environment. And I think today, at least in Sweden, the Swedish mining companies are really skilled in making minimum impact.

But the trouble is to actually get to the point with how we implemented some of the EU regulation to actually start digging. And one of the tricky ones is how we implemented the water directive, water framework directive. And I think also how that's been handled by, what's the, it's one, it's a European court that has ruled about how you can affect water.

It's called the, it's something about WESER, W-E-S-E-R, where this court, European court made a very strict interpretation of the law. And that's something that is still following a lot of industries and make them worry. It basically make it impossible to open industrial, do new industrial activities.

[Speaker 2]

And, yeah, go ahead.

[Speaker 1]

No, but I can stop there.

[Speaker 2]

I was also wondering, maybe because here you talked about, like, the, like the different laws that are, yeah, other laws that are already pre-existing before the CRMA. And I was wondering maybe more in terms of implementation, if there will be maybe some conflicts or some issues with certain already existing law and the CRMA implementation, in your opinion, or if it will be flawless?

[Speaker 1]

I don't think there will be. And I haven't thought at least about any new conflicts, because it's not new with mining. And we already have the environmental laws.

And I think also for indigenous people, I think the act became really good. And we also have national laws working together with the CRMA for that. So, I think it's not, there isn't any new areas of conflict that we have identified.

So, what could possibly happen is that we get a few more mining projects. So, a few more people could be affected by mining. But I don't think there are any new issues on that sort of were identified through the act.

[Speaker 2]

And I was also wondering if you foresee maybe any like social aspect or social gaps within the CRMA related to that framework?

[Speaker 1]

I think it's actually well taken care of, both for local communities and for, as I said, indigenous people. In the draft, so the indigenous people and local communities were included in the parts of in the annexes, where OECD due diligence is listed. So, basically everything you need is in there.

But in the final document, the, for instance, the UN declaration for indigenous people's rights is actually in the active text, in the law text. So, and it's put in the right place where governments are responsible. So, there is more focus on indigenous people in the end result of the act than it was from the start.

And I think that's something that became important for Sweden to make sure that it's in the right case in the act and that it's on the right level, so to speak, so that it includes all groups of indigenous people. There was one short time period where the parliament suggested that there is an instrument in this UNDRIP called FPIC, Free Prior Informed Consent. So, the parliament wrote that in the act, but they put it in the wrong place.

So, technically, it became a responsibility for the commission and for the company. But from the UN declaration, it's something that should engage the member states governments. So, where it's now, where we moved it, it's actually in the right place so that the state can engage and take responsibility. So, I think that's much more correct.

[Speaker 2]

But if I remember well, there is like no clear mention of the FPIC in the final draft.

[Speaker 1]

But the UN declaration that put FPIC as an instrument, we put the whole UN declaration in there instead. Because FPIC is only important for the indigenous groups who have land needs. But there was nothing there for the other indigenous groups.

But with bringing in the entire declaration, we brought in all the indigenous people, and not only the, what are they, 3,000 people in Sweden who owns reindeers. So, now the entire community is included. So, everybody is taken care of, which I think is much stronger than only for the reindeer herders.

[Speaker 2]

That's really interesting. And I was also wondering... So, if I understood correctly, for strategic projects, it's like 24 months, and then there is the environmental impact that is not included in the process for the 24 months. But in the 24 months, they should have the social side of the project, I would say, with communities or indigenous people in the Swedish case, at least for you, has to be done in the 24 months. And I was wondering if it would be an issue for projects related to that, because it's like only two year period time.

[Speaker 1]

Yeah. So that was something that worried us too, because it's really important that that dialogue can take the time it needs. So, there is, and it's actually 27 months for the strategic projects. But it's not so much more. But, and also, I think the first step of the this, it was the law in English, environmental assessment, something directly.

It has five steps. And I think the first step is now, it's like in the Net Zero Act, it's outside. So, you do that before you enter your 27 months. But there is also the possibility to start to stop the process within those 27 months, when you get to those things where you need to negotiate, and when it's not in the hand of the state, then you can stop the clock.

[Speaker 2]

Okay. And so, you think it will solve the challenges this particular aspect?

[Speaker 1]

It could be, but I think if, depending on how the country install the single point of contact, if you do that in a skilled way, with people, enough people and people with enough skills, then you, and if you do the coordination in a proper way, I think it's going to work. But I don't say it's easy, but I think it can work.

[Speaker 2]

That's really interesting. And I was also wondering, because like Sweden is very rich in terms of minerals, materials, and here, like strategic project, and even like, I would say the four main objectives, so like 40%, 25%, 10%, they are really focused on 17 materials, so the strategic one. And I was wondering, maybe for the other critical materials, or even like the other materials, what were your thoughts about it, related with the CRMA in general?

[Speaker 1]

So, I know that one of the worries from the industry, and probably more from the aggregates industry, for instance, is that, because they are not included in the CRMA, is that their permitting processes will take even longer now. But the idea is that instead, you should increase, as an understatement, increase the amount of people who works with the strategic permitting, and actually CRM, the critical raw materials permitting, even though they don't have a timeline. So, you should have more people doing more work, so that everything goes smoother in the end.

And I think for, I don't know, because it's not decided here yet, but it's not very efficient for a country to have several parallel systems. So, I think in the end, the system that we actually have to install with the CRMA is the one that is going to be used for everything on raw materials, so that we have a unified process for it. But I'm not sure we're going to be able to do that from the start. But I think the end goal would be something like that. And then everybody would gain from the act.

[Speaker 2]

That's super interesting perspective. And maybe a last question, maybe on a social term, is about public awareness. So, even, do you think that it will be an issue? I don't know about Sweden, because Sweden is like a mining culture. But maybe do you foresee like for the implementation an issue related with public perception or public awareness of it?

[Speaker 1]

So, actually, that's something that the Geological Survey has worked with for quite many years, from different angles. But for more than a decade, we've done a lot of different things. We've built a modification of Minecraft, for instance, that is more for kids.

So, that is more true when it comes to geology. And to teach kids in a fun way how it works and why we need those things and what the environmental implications could be. That's one example.

But we've done a lot of different activities. What we've seen is that something that is very efficient is to actually just communicate why we need those raw materials and where they are produced today. And how dependent we are when we talk about value chains.

So, that's something super efficient. Then we could see that we made a public poll before the pandemic, where we saw that public acceptance when it comes to mines was like 52% or something were pro mining. And maybe 5-8% were against mining.

Then we did another poll after the pandemic and after the Russian invasion of Ukraine. And then we saw it was 62% who actually were pro mining and maybe 5% against. And we could also see from the first poll that the Green Party had, so in that poll you had to, or you'd never have to do that, but you could answer what political party you had voted for in the latest election.

And then we could see that those who vote for the Green Party, 40% of those who voted for the Green Party were pro mining. And that was because they had understood why we need to mine things. They would probably have been very much pro recycling as well, because you need the raw materials for windmills and solar panels and batteries and all the green technologies for energy production. So, they had the knowledge about how value chains work.

[Speaker 2]

So, you would say that compared to the pre-pandemic part and also the events that happened with Ukraine and the Russia war and the increase in terms of level of dependency, there are some changes in the public perception. And also, that's two important points to, let's say, reduce the risk related with public awareness or communication, explaining why it's important to do it. And the second thing is also knowledge. So, learn people also, like, for example, we can mine in a sustainable way or things like that.

[Speaker 1]

There is a third thing as well. We don't have any polls from before we signed the Global Goals and the Paris Agreement. But I have worked a lot with media during all those years. And before we signed, even though we're a government agency, we were always the bad guys. It didn't matter if I said, but, hey, we



need to import this from Congo where kids produce this under terrible circumstances. Yeah, yeah, yeah. You talk, nobody cares.

But after we signed the Global Goals and the Paris Agreement, people started to understand this to a much larger extent. And it became much easier to explain the value chains and explain that this is actually happening in Congo. We can improve the situation there with development day then and capacity building.

But it's actually so that maybe we should take responsibility for our consumption. And that was, it started to become much easier to communicate that when those documents were signed. And then we could see how people really started to understand how sensible the society is, first through the pandemic and then with the Russian invasion and the energy war, and so on.

So, people have learned a lot as well. And so, which is terrible, of course. I mean, it's horrible that a situation like that should happen. But when it happened, it taught people a lot of things.

[Speaker 2]

And so, would you say that public awareness and public perception is still a challenge nowadays, at least in Sweden, or not?

[Speaker 1]

I think it's always going to be a challenge. And I think it's really important that you always work with this kind of communication, because it's also a changing landscape all the time. So, and I also think that it's been such an integrated part in our society with our industry.

So, we haven't seen that it could be threatened in any way. And we haven't seen how it contributes to the well-being of the Western countries. But that's something that people are starting to relearn now.

How all those things, the jobs created, for instance, if you look at the European car market, I think that we have like 25% of the traditional cars, the global market for that, but maybe only 3% for electric cars. So, if we fail to, we stop producing traditional cars, and we fail to take the global market shares on electric cars, it's 14 million jobs. And then there are maybe 14 million families that will have problems with the bread and butter. So, I think it's becoming some, it was so, what's that word in English? It was not the problem before. And then we stopped seeing those things. But now it's coming back, you know, in a really tough way. So, it's going, it has to be that we don't put ourselves in

that situation, we need to do something before that. So that Europe can continue to prosper.

[Speaker 2]

I understand. This is super interesting. And during your introduction, you also talked about exploration and also de-risking for exploration companies. And yes, I had two questions quickly about that. First one is, do you think that as a national exploration program that countries have to do will really be impactful and are important, maybe to attract investors? Or do you think it's first, it's really important?

[Speaker 1]

So, we never stopped mapping here. We've continuously done that since we were founded 165 years ago or something. So, I know that there are countries in EU who stopped mapping in the 60s, because they said, okay, we're done.

We know what we have in the ground. We don't need to do this anymore. But the thing is that geology as any other science develops and develop new models for understanding things.

But it's also that in the 60s, we didn't need the rare earth elements or the lithium. So, we didn't look for that. But now when we need it, we also need to have, we also need to look at it and look for it. So, we have done mapping continuously. And we have done it in, we have some baseline that we always provide. But then, from time to time, the government put extra money into this. And we got one of those programs in, I think it was in 2010. We got quite big money over four years. And afterwards, we made an evaluation to see what happened.

And we saw that when we published reports or data, immediately companies applied for exploration permits. And we could also see that the investments, if we invested one kronor, the industry would invest four kronor. So, it's really, it has an impact.

And we also see that if we announce that we're going to map a certain area, directly someone is applying for an exploration permit there. It doesn't mean that they keep them all the time then. But it triggers an interest, and they keep some of what they apply for when it's approved.

[Speaker 2]

And just because here you talked also with permitting related with exploration. So, I know that the time needed to get, let's say I'm an exploration company,

and I want a permit. So, in Sweden, it will be, I don't know, three to six months. But in other countries, it can be more. And so, I was wondering if the time to get a permit was still an issue or not. And they're so like, how, Sweden, because I had a talk with someone that is in the exploration companies, and he was not talking about Sweden because Sweden is already, I mean, super advanced. I mean, it's Sweden, right? But do you think it can be still a problem? And also like, how, Sweden can be competitive for that specific industry compared to countries like, I don't know, Pakistan, or like, you know, countries that where investors are sure that when they start a project from the exploration, it will work, I would say.

[Speaker 1]

So, I think, yeah. So, getting an exploration permit, it's really something like three months here, because we don't want to have a high threshold for that work. We look upon that as innovation, basically, if you would compare this industry with the medtech industry or pharma, big pharma or something, this would be our, those small innovation companies that works with an issue or maybe a new medication until it's time for doing the big tests.

So, that's our exploration industry. And we want that to come easy, because it's not, you don't do a lot of environmental impact when you do exploration, you do maybe a little, but it's really a little. So, we want that to be easy.

And then we want it to be high demands if you want to start to mine, really. So, I think, so back to your question is that we have companies, we have countries in EU where it takes longer, it could take two years, what I hear. So, I think that's a benefit for us to get the yeah, investments here.

When it comes to if you want to choose a country like Pakistan or Congo or Sweden, I think the real competition would be between Finland and Sweden, for instance, because we have high standards in both countries. So, if you're a high risk company, who don't mind a little bit of political instability, maybe you go somewhere else. But if you like political stability, you would come here.

And you will struggle with the permitting processes, but you will still want to be here because we have good infrastructure, a good energy mix, fairly stable political conditions and so on. So, I think we have a fair chance to be competitive here. But it could also be that for some countries, so let's say you have a country where you can buy a permit.

In that country, you could have elections, so you could have some conflict so that someone take away the government and grab the power. Are you sure then that you can keep your operations going? Or do you need to bribe someone new?

It's really difficult to operate in those circumstances as well. So, I think most industries are interested in working where you have stable framework conditions. It's safer for many reasons.

[Speaker 2]

That's really interesting. So, like stability and also like technological advancement and even like structural framework in Sweden is really attractive compared to some, let's say, third-party countries around the world. And I thank you very much, P14, for all this insight and also this perspective.

It's really super helpful for me. I was wondering first, is there anything else you would like to add that we haven't covered and that you think will be useful for me?

[Speaker 1]

Yes. So, just one more thing. I think that it's not possible for Europe to be totally self-sufficient.

So, I think we will have to trust that we can have import from other parts of the world also added to what we have to do ourselves. And if this import has to come from a country like Congo, for instance, because it's a very rich country, I think we are also obliged to support them when they want to build a sustainable mining industry, a sustainable society. Because I often hear that, okay, but it's terrible in Congo, then we shouldn't shop there.

But I don't agree with that. I think we should collaborate instead then. So, they get the opportunity to use the incomes from mining in their country to build a really good future there.

[Speaker 2]

And I was wondering quickly about that. So, if you help them to build value chain, at the end, the competitive advantage of Sweden is lowered, right?

[Speaker 1]

Yeah, that's one way of thinking about it. But since the demand curve is like this with the green transition, we want to take away oil, coal and gas. We will all

need so much so that everybody is needed and everybody should be able to benefit from that journey.

So, maybe that's a problem or a challenge, I would say, in 60 years, but that's okay. Because then everybody would be in a much better position if we can overcome the geopolitical struggles that we have right now. I think then we could move everybody to a better place, like the global goals have intended, you know, the first goal with no poverty and so on and so forth.

But I actually don't think it's a problem that we support countries that we want to import from, so that we also can see that we have sustainable import. Then I think there is room for this for everybody, actually.

[Speaker 2]

Perfect. That's super interesting perspective. I love it. And also, last one is like, who else would you recommend I speak with to gain further perspective on the topic? Like if you have someone that you think can be really insightful or bring new perspective, or like if you think of someone that could be useful for that subject.

[Speaker 1]

Would you like someone from Sweden or what do you miss in your...

[Speaker 2]

For me, it's really like, it can be for Sweden, it's really to have new perspective. I haven't had the opportunity, for example, to talk with a lot of person for the mining, except Euromines or... But like if you have someone in mind, really interesting and knowledgeable or have interesting perspective, I'm totally open with that because each time I discover new things.

[Speaker 1]

So I think that one person, if you look at the Swedish industry, that is really knowledgeable and could be worth interviewing is the CEO of the Swedish Mining Association. Her name is Maria Suner, and her email address is maria.suner.se, I think.

[Speaker 2]

Perfect. Thank you for your time, P14, and also for the contact and for everything, it's super useful. And I wish you a lot of success for your next project. And also to have a very nice end of the day.

[Speaker 1]

You too. Thanks for calling. And good luck with your work.

[Speaker 2]

Thank you. See you,P14. Ciao.

[Speaker 1]

See you. Ciao.

## Interview with P15

[Speaker 2]= Gauthier

[Speaker 1]= P15

[Speaker 2]

Perfecto. So I will explain you a little bit before asking you to introduce yourself, like the context of the interview. So my name is Gauthier, I'm 22 years old and I'm in my final year of master in Belgium. So I decided for my master's thesis to focus on the analysis of the European strategy for critical room materials as defined in the CRMA.

And I am interested to know more also in the social and environmental side. But I, during my research, I was also questioning myself about the impact of this strategy on other countries outside the European Union. And I'm really trying to talk with different experts like you to really grasp and have a whole perspective of this legislation. And also I can ensure you that during this interview, like even if it's maybe not necessary, but I can ensure you that everything will be anonymous, confidential. And also maybe can I record your voice like that I can really focus on the exchange.

[Speaker 1]

Yes

[Speaker 2]

Perfect. So maybe could you briefly introduce yourself and explain me like your involvement with the CRM, critical room materials in general, and maybe CRMA.

[Speaker 1]

Yeah. So I have been working in mining for more than 20 years, basically linked to copper mining. That's the main area or the main material that I have been

engaged in.

I'm an industrial engineer from the University of Chile. And then later I did the PhD from the University of Sussex about science and technology policy linked to the mining industry, in particular related to the development of technology and the development of knowledge-based mining suppliers. And, you know, the broader kind of concept or industry that I study is what you call the KIMS, the knowledge intensive business services.

And I label it for the mining industry, the KIMS, which is knowledge intensive mining services, like, you know, like engineering companies or companies that develop some technologies to the mining industry. Once I finished my PhD, I started to work in a large mining company whose name is BHP. At that time it was BHP Billiton.

A couple of years ago they changed the name and it's just BHP. It's a very large mining company from Australia that has operations all over the world and in particular in Chile. So I came down from the UK to Chile to work in BHP. Initially I worked in Santiago in the headquarters of the business unit that is related to America that was based in Santiago. Then I moved to the operations in the north of Chile. Antofagasta is the place where the operations are based. I returned to Santiago to work in government relationships, basically. And then I also have the chance to to work in Australia. The company offered me the possibility to participate in a project in Australia.

And once I came back from Australia to Chile, I quit and I started to work as an independent consultant related to the areas that I just mentioned. Knowledge or technology development, policy making or supporting governments in order to shape their public policy related to the mining industry and also community relationships. Since then I have been doing consultancy.

I also engage in teaching. I do two courses at the University of Chile, one and the other one at the Catholic University here in Chile. And I am also a member of the board of a company related to the mining industry called CESCO and a member of the board of a state-owned company here called ENAMI, Empresa Nacional de Minería, the national mining company. And that's it. Probably I'm missing something, but I hope I can just give you a little bit of flavor of what I am.

[Speaker 2]

No, no, that's really interesting. Thank you very much for that very insightful introduction. And maybe before going deeper into the impact of the European

strategy on Chile, strategic partnership, I was wondering because you mentioned also that you helped to shape some policy in Chile. So I was wondering, maybe can you outline Chile's current approach to managing CRM in general or critical raw materials in general?

[Speaker 1]

Yeah, yeah. It was the broader topic that I have been working related to public policy is mining-based development. How a mining economy can use that rich endowment of minerals as a platform, as a level of development.

So it's not just to producing minerals and to creating more economical activity, but also how to transform the complete economy based on the industrial capacity that you are starting to build because of running large mining operations. And taking into account the complete kind of dimension of sustainability. Now it's not just economic sustainability, but also not a social environment or what is now called the ESG kind of approach.

And basically a link to copper. So my topic is a little public policy is sustainable development and how it works when your economy relies quite heavily on minerals. For example, in Chile the largest industry is the mining industry.

About 60% of our exports comes from the mining industry. And Chile is a small economy, so we need to be export-oriented in order to have the growth that can drive the development. So I started to work in that, and it happens. So I didn't work in critical materials. So now what happens is that in the copper we become a critical material. So it's something that can accumulate later on.

And then you have all this discussion whether it is a critical material or whether it's a strategic material, or what is the definition from country A, B, C, and D, because everybody has a kind of different definition. Or sometimes it has similar definitions, but when you start to list the materials that each economy considers critical, it's not exactly the same. So we understand and agree that in Chile we understand what the critical material or strategic material is.

And we're trying to use it as an opportunity to keep driving development because it happens that one of at least two of our minerals, copper and lithium, are critical. And that opens new new opportunities to have a better deal, let's say, with economies that are demanding those materials. So putting in very concrete terms, given that the EU needs copper, how can we shape the relationship between Chile or between Latin America and the EU in order to have, let's say, a better arrangement so that we have a broader win-win relationship?



And initially it was quite transactional, let's say. So it is a commodity, it is a given price. On your side, let's make it simple, you're interested in buying cheap.

On my side, I'm interested in selling expensive. So we say, okay, let's give the markets the responsibility to set the price. Yes, obviously there were standards there about you need to meet some local regulation and international regulations and standards, but that was basically the way in which the relationship was shaped.

So it was probably a purely market-oriented relationship. Now that the critical materials come into the discussion, to the agenda, and critical materials has an important dimension related to how to produce and trade those materials in a sustainable way. It's not just that you need more copper, more lithium, more real earth or whatever.

You also need that those materials are produced in a sustainable way. It's that the discussion started to open a little bit more. And then again, what is sustainable is not clear totally. Initially, the first kind of meaning was low carbon footprint. And then say, is that all? No, it's not at all.

Then you also added, let's say the biodiversity angle, the human right angle, the governance, the different dimensions. And on our side, we said, okay, yeah, that's fine. But you are also missing some kind of additional dimensions of sustainability, which are related more to the economical side.

On the economical side, it's not just about prices, selling expensive or that you buy the minerals at the fair price. It is also related of how to transform our economy in order to evolve gradually into an economy that is increasingly more knowledge intensive, that's adding more value. If you like, that kind of concept is under the umbrella of industrial policy.

So how to actually integrate the industrial policy as part of a critical dimension related to sustainability. To make it simple, if we have, you know, green copper, but that green copper is not producing good jobs, for example, we are missing something. And that also will be not sustainable.

If you're not talking both kinds of dimension, let's say the purely environmental one with a kind of more socio-economical one, the tensions that our economies, and I'm not talking just about Chile, but also Latin America in general, is that we have some social tensions, some social challenges. One of those challenges is related to good quality jobs. And there's a little bit of social unrest related to that.

So, you know, you can have a green economy in terms of carbon footprint, but you don't have good jobs. The people will be very kind of upset. And that is a risk for you, because that upset can end up in the interruption of the supply chains, because you have, you know, you have strikes, you have social problems.

So, the reliability of having a sustainable supply chain to supply to your economy, the material will be also under risk. So, I think my answer was a little bit too long, but I hope you got the key points.

[Speaker 2]

Yeah. It's very interesting. And I will have a lot of questions later on to ask on, for example, like the concept of, I would say, climbing up the value chain. That's a little bit what you talked also about sustainability and the partnership between Europe, Chile. How does it work? But before that, I was also wondering, maybe your opinion, like, how do you perceive the European strategy? Like, what are the perceived benefits or concern from like a Chile perspective?

[Speaker 1]

Okay. So, first, let's say there is a little bit of a common ground, you know, if you see the kind of the spirit of what the European Union policy rely on, it is sort of aligned with the kind of things that we would like to do. So, it sounds okay.

But when you go to the more operational kind of practices, I should say that it is a little bit confusing. So, how you are going to do this, what the spirit of what you are declaring that you will be doing is put on practice. So, I find it very confusing or not clear to some extent.

So, it's whether you're providing, you know, resources in order to close some gaps. And let's say if we have a gap in regulation, imagine that we need to have a enforce or improve whatever regulation to lead it to water, for instance. And in order to do that, you need to train people, you need to develop institutions, you need to find a way of having a better system to monitor, for instance, some variables, which means investing, be investing because you need to build things. So, how are you planning to do that? How are you planning to support us to do that? That's not clear.

At the same time, in terms of the industrial policy that I mentioned, it seems that you understand that, that the European Union understand that there is a need for us in order to move into something that has a higher level of knowledge

content and value added because of what we just discussed. If you have better firms, you will have more income and you will have better jobs. So, it is a kind of acknowledging that moving in that direction is a need for us.

But at the same time, it is a kind of a feeling that you don't feel very comfortable with that because you say, okay, you will end up competing with our technology. So, what we Europeans want is green copper, but European technology. And say, no, no, no, we would like to have green copper, but Chilean technology. I'm making it simple, yes, to...

[Speaker 2]

No, no, no, it's very good.

[Speaker 1]

So, obviously, what we are aiming is not that we will replace or substitute, you see, let's say, every time that you have a technology, it's a complete array, a quite broad array of different technology. Let me give you an example. When you have a mining truck, you know, these big yellow trucks, the caterpillars or the komatsus or the leap here, it's not just one technology, no, this is hundreds of different technologies that are assembled in a specific device, which is the truck.

But whatever, but you need, for example, maintenance services, or you need to replace or share parts to be replaced, or whatever component that exists. In that array, say, okay, if you map where the different components come from, they come from everywhere, you know, this one comes from Asia, this one comes from North America, this one comes from Europe. So, say, okay, give us something that we're in that kind of array where we also can participate.

So, we're not talking about, let's start to build trucks in Chile, because, you know, but let's participate in some of the knowledge or increase a little bit more the local content in the production and use of that technology. And also, by doing that, helping us also to enter in global value chain. So, in that regard, things are a little bit sort of, it's not clear how are you planning to support us in order to have this win-win relationship.

And another point that I think is important to understand is that when we talk about value added in mining, for every mining minerals, how you add value change is different. So, for instance, but usually what many people think is that the only way of adding value is processing more. So, if you have, you know, a raw material and then you extract it, it's okay.

The next level of value added is processing it more, processing it more until you end up with a product. So, it's not taking into account how mining, the structure of the mining industry. There are other, let's say, if you see all the linkages of the mining industry, you have forward linkages and backward linkages or maybe sideward linkages.

And the example that I give you is very good. You know, if you have copper, when you have the ore, you know, the copper ore, the first step is to transform that into concentrate. Let's say, from less than 1% of copper, you move to something like 30% of copper in a concentrate.

Then it goes to a smelter that makes it 95% copper. Then it goes to a refinery that makes it 99% and then to another process like electro-winning that makes it 99.99% of copper. And that's, let's say, the end product, which is taken by the manufacturing or semi-manufacturing industry.

So, that's, let's say, a path in order to add more value. But if you go to, if you see the complete value chain from geology up to now, building operations and closing them, there is a huge and very diverse set or range of activities, like the one that I gave, the example that I just gave you. Trucks for, you know, to do mining.

Trucks to do mining requires ICT technologies. For example, if you open a new mine today, a new copper mine today, the trucks are not, it doesn't require a driver anymore. So, you have an autonomous truck.

And the autonomous truck is, given that the mine is changing the shape, you need that truck to make a decision. So, where to, you know, how to move over there. So, it's not just an autonomous truck, it's actually a robot.

Because it's not like when in a factory, when you have everything, you know, it's decided. You can't just program how things are moving because, you know, the constraints in which you operate. So, let's say that you have a robotic arm that moves from here to there, from here to there, and it's always the same thing.

But the machine doesn't need to make any decision. When you have an autonomous truck, the machine needs to make a decision. Because the variables change all the time.

So, you're talking about quite advanced, almost cutting-edge robotic technology. So, because of that, you have the chance to participate. If you have an advanced mining operation, you as a mining economy have the chance to participate in the robotics industry.

From designing equipment, to building equipment, or to do maintenance, or even modeling. Because you have a lot of information that you have engineers that do with IA or whatever technologies, new things. So, the mining industry is providing you a platform to entering into a complete new industry, which is robotics.

And on social, you can do this with, you know, the same thing with many other industries, like let's say engineering services, environmental services. So, if you're doing mining, you need to be at the frontier of waste management, of circular economy, of water management. Because once you enter in those industries, you can deliver the same kind of products or services to other industries.

And each of the examples that I just gave you are quite knowledge-intensive, or can be quite knowledge-intensive. And actually, much more knowledge-intensive than processing the copper. And the value-added is also higher.

So, the thing is, okay, when we are, when we would like to move into more value-added, it's not just more processing, it's also participating in those linkages, backward linkages, or sidewalk linkages. Because that, on one side, enables us to have a higher productivity in the mining industry. But also, it enables us to change or to diversify our economy based on the things that we learn in doing the mining.

Now, it sounds like I'm doing mining out of the frontier, and because I'm doing mining at the frontier, I am also entering in the robotics, entering engineering services, entering in environmental services, and so on and so forth. So, that's probably the two things that, or the two kind of dimensions that we see, that there's a kind of a common vision about how to address environmental issues, basically, but how to participate in the solutions related to those kind of new standards is not that clear. In terms of, it's not just, let's say, providing European technology in order to have a green or a clean mine is not enough, because that is not a guarantee that also you will have good jobs, because probably all the jobs will go to you, and I will be, you know, you will have me doing the things, and I will always be like that, because I don't have the job.

So, how to shape that kind of thing? So, in terms of regulations as well, you know, this kind of, you have these border taxes, so we are, today this is not connected to copper, there are other materials, but probably the trend is that the other materials will also be part of that list, or the list that requires the border taxes. So, say, guys, you're making it even a little bit more complex,

because, you know, mining is very competitive, and you're charging us this new charge or tax.

Probably, my view is that in terms of sustainability, there is a quite heavy kind of, you're relying very significantly on the ESG standards, and I think that's okay, but I think that's not enough, because you can't replace regulations, local regulations with ESG. When I was in Brussels, one of the examples that I gave, you know, you can have, you know, all the firms with a fantastic meeting, all ESG standards. So, you have mine 1, mine 2, mine 3, mine 4, with, you know, 100 points in the ESG standard, and then you go and see the performance of the whole economy, or the whole mining industry as a whole, let's say in Chile, and you see that the carbon footprint is moving in that direction.

It's getting bigger and bigger and bigger. So, now, you know, I make an assessment based on the ESG, and you're fantastic, and when I make an assessment in assessing how much carbon you produce, and it is increasing, and you can do exactly the same thing with the water, and so on and so forth. So, you know, and because of that, I think you need to have both kinds of things.

If you have a regulation that said, okay, we need to be carbon neutral by 2050, and you have carbon budgets, sector by sector, and with intermining industry, company by company, you can have also the kind of aggregate assessment of whether the economy is evolving in the right direction. And my impression is that the agreement or the frame that you're putting in place is relying mostly on the ESG standards and then some kind of certifications and less for instance by saying "ok you have the right regulations in order to make those two things work together. Imagine the following example in order to open a new mine, you need an environmental impact assessment, and then you need a permit. Here in Chile and everywhere.

So if you, as the European Community, assess the quality of the institutions that are behind that, and say, oh, this environmental assessment is really good because it's meeting all the standards, and you have a fantastic enforcement. It's not just a paperwork. It's also you go and see that things are happening.

So the standard is as high as the environmental assessment that you find in Switzerland, let's say. So instead of having a certificate of a consultant that put a stamp and say, okay, you have 100 points in the ESG, say, no, it's not needed because you have your environmental assessment approved.

[Speaker 2]

Okay.

[Speaker 1]

Or make it simple. Oh, no, all the things that also are in the ESG are not anymore required because the regulations that you're meeting is even higher than the ESG standard. And you can sort of avoid a kind of overlapping, a duplication of things.

So all my point is that it's kind of how to understand how, let's say, market-based tools like ESG work with a kind of more institutional or regulations tools, like the environmental impact assessment tool. It's not taken into account. It's not on how to integrate that kind of thing.

[Speaker 2]

So you would say that you also need to integrate those frameworks into existing tools and make it match on the real ground, I would say, to not duplicate the effort and also manage the coordination correctly, if I understood correctly. And you said a lot of interesting things also about value creation. And just very, very quickly for now, because I also read a memorandum of understanding between Chile and Europe, and it's true that there are not a lot of details.

So if I understood correctly, it would be great to add additional details about more like implementation aspect of it, or you really create a value for Chile or for third countries, because otherwise it will not be considered as a win-win partnership. And I was also wondering, maybe more in terms of governance. So, in fact, yes, I was wondering.

So, for instance, I know that some strategic project would be done possibly in other country like Chile. And I was wondering, like, how do you monitor the environmental and social aspect of it? Because maybe that in Chile, it's very good. I don't know if there is a lot of corruption or like if it can happen, but how can you monitor it? Like the transparency of it, I would say.

[Speaker 1]

Yeah, there are plenty of standards to do that. Starting with the one that is more kind of well-known, I think that's the EITI initiative. You know that the Extractive Industry Transparency Initiative, EITI? Yes, and you have standards there, and that initially it was related to that you can trace where the, you know, how the taxes that the mining industry pay is expended.

[Speaker 2]

Okay.

[Speaker 1]

Because there is a transparent way. So, instead of, you know, if you collect the money as a government and you spend it in a non-transparent way, you don't get the EITI certification or something like that. So, for every kind of dimension in terms of the things that you are measuring, the transparency, there are plenty of standards to do that.

And on the EITI, it's the one that is most famous. But together with the EITI, it's quite similar to what we were discussing before. There are some local regulations.

So, you know, how, let's say, how the municipalities are spending their taxes, then you have, you know, you have monitor devices or a system at the local level, but it's also part of a local law. So, again, it's the same thing. You can have this international standard, the EITI, but how those standards work in a coordinated way with local institutions and capabilities.

For example, in one of the sources probably of not spending the money in a good way, and I'm trying to avoid to use the word corruption, because sometimes it's not related to corruption. It's just related to that you don't have the capacity to spend that money. So, imagine that is an imaginary example.

You are a municipality that has a budget of 100 euros. And so you do all the things that they do with 100 euros. And suddenly you have a mine in that municipality, and that mining operation needs to pay a royalty or something to that municipality.

So, from having 100 euros, because of that, your budget jumped from 100 to 10,000. So, it seems that it's good news. Oh, you have a lot of money to do good things.

But, yeah, but spending money is hard. It's difficult. It's not easy because you need to make a budget. You need to design the projects. And you need the skills in order to manage in a good way a new scale of resources in order to avoid to waste it. And that is not theoretical.

It happens everywhere. You know, if you have the chance to review, for instance, what has happened. Okay, I will avoid to mention the country, but there are some Latin American countries that what happened is what I just mentioned.



In terms of that, they got a lot of money, additional money, because they started to do mining. And a lot of money. A lot of money.

And then if you assess the development level of those municipalities in the same country, compared to the municipalities that are not mining, there's no difference. The mining municipalities have 2, 3, 4 or even 10 times more resources than, let's say, the non-mining municipalities. So you would expect that, you know, given that they have more resources, that they will have more development.

Better health, better jobs, better infrastructure, and all the things that are not happening. Because they don't have the skills. So initially, that is one of the things that needs to be taken into account.

It's not just about corruption. It's also about having the capacities to use the resources in a good way. And when you start to do this kind of thing in not a good way, there's a risk that it starts to develop. That some corruption starts based on that. Because there are dynamics, there are incentives that happen. In the initial term, they are trying to avoid that kind of thing. But even if you don't have the capacity, you can end up in some kind of corruption dynamics.

[Speaker 2]

So you would say that additionally, I would say, to give the possibility to climb in the value chain and also maybe to enter in other industries through mining, it's also really important. Other than the technological aspect, but to bring these trainings or to bring this more knowledge and skills, just knowledge into mining, but also into more governance and also the structure around it. In fact, to make those partnerships between Chile, Europe and even in general the economy efficient.

Because with those skills, they will be able to manage the money they will receive. And it will be like a win-win for both. And it's very interesting because I didn't think of it like that before.

And by talking about that very quickly or so, I know that the US with the Inflation Reduction Act, I think, and China also has been in a lot of countries in Latin America. It can be like Bolivia, even Chile. So, how would you say, if you are Chile, what is the advantage to partner with Europe compared to USA or China that will give maybe more quickly the resources?

Is it more this value chain aspect and knowledge aspect? Because, I don't know, if I put myself in the situation of Chile and without thinking about skills or without thinking about anything other, and I see China come with a lot of money

and possibilities in one fraction compared to Europe that is slower. I would ask myself some questions, I would say.

[Speaker 1]

Yeah, I think that's a good question. I think it's the right question. You know, when you have on the American side of things, they are starting to talk about this nearshoring of reinsuring.

Have you heard that concept?

[Speaker 2]

Not really. Maybe in French but in English, no.

[Speaker 1]

No, we come from an epoch where we allocate the resources where they give you a better kind of outcome. And then the complete kind of investment approach will link to offshoring. The offshoring is okay if you produce the things better than I do it, I will just offshore it to you when I will focus on the things that I am good at. And so the complete global value chain was specialized on that. And what happens is that a significant part of the offshorings end up in China.

[Speaker 2]

Okay, I get it.

[Speaker 1]

And you did the same, you and in Europe, I mean. And now you say, oh, I have some problems because I offshore so much that all the minerals that I need are coming from China. As a reaction of that, say, okay, there are some limits with the offshoring and we need to start to think about nearshoring.

So let's bring near the things that we offshore. And the Americans even say it's not just nearshoring, it's also about Friendshoring, which means because the nearshoring is that you would bring it back to your country. So if you do, let's say something in China, in order to move back from the offshoring to the nearshoring, you start to do the same thing in America.

But these things are a little bit more complex. And the Americans say, okay, if they do it in Mexico, it's also okay, because Mexico is part of our economy as well. We are very integrated.

So then it is a Friendshoring shoring because the investment are part of an industrial capacity, but it's nearby an ally, a partner. So these kind of things the

Americans are doing on the inflation, taking into account investments, subsidies, support in order to do that. When I was there in Brussels, you talk a lot about this global gateways strategy. It's impossible to understand what is that. Are you giving me money? Are you giving me now your time? We like you, but are you providing me technical support? No, because there is a lot of kind of rhetoric about the fantastic thing. No, we need just a single...

What it is, it's not clear. But the kind of features of what it is, is what is explained. No, we need a common frame. So that is the same thing. Yeah, okay, you need a common frame. That's great. But that common frame is an investment device. It's a technical support device. It's a what?

So that I know... Like if you go to the restaurant and you have a menu. Ah, I would like one of this, one of this, one of this. No, that's not clear. Actually, it's quite confusing. So in that regard, you are a little bit more behind to America and China.

Because initially with China, we didn't... We weren't that clear about... China wanted the minerals, and we wanted the investments. So what do you need? Do you need a port? Okay, we buy it. You need highways? We buy it. We build it, and so on.

And they do it. Then we realized that the port, the highway, was built by Chinese companies. So then, guys, we wanted a little bit more than that.

But at least the deal was clear, you know, what they are doing in Africa. So you end up with infrastructure. Yes, the infrastructure was built by Chinese and with Chinese money. So the kind of prosperity cycle, you end up with a good infrastructure, but not necessarily with a good economy. But at least the variables that shape the agreement are quite clear. And now we know that's not enough.

And in the case with America, it's the same thing. You know, they are sort of shaping things a little bit clearer of what are the conditions that we're negotiating in order to have a good relationship. In the case of Europe, it's actually quite confusing. And when you go to the... Whatever. We will give you... That's another example. We will give you technical support. Great. Because with that technical support, we can close the gap. And who will do that technical support? Who is the one that is delivering? Are European experts. Which means that the capacity building that we were just talking about is not being addressed. Because the solution is designed by the European expert.

And the local experts are not participating in that process. And the ones that learn... That's how technology works. The players that participate in the design of a solution are the players that learn. The players that are just users of the technology, sometimes they think that they are learning, but they are not learning. Let me give you an example.

[Speaker 2]

That's really interesting.

[Speaker 1]

Imagine that. I'm a user of that. Within that, what I see is just magic. I know that I can call you later on or send you an email. Fantastic. But I haven't learned how to produce this kind of thing. So if you ask me, P15, you're using an iPhone. Yes, I'm using. Please build me one and send me to my... Because I like the one. I have no clue how to build it, how to repair it, how to improve it, how to upgrade it. Therefore, who is winning?

I don't know. The guys that work in Apple in California. So that's a kind of simple example. But these are the kind of dynamics that we are seeking. So how to participate in building that? Again, it's not replacing.

It's not that I'm saying, no, no, we will have iPhones made in Chile in the future. No, that's not because it's impossible. But also to participate in some of the components that are a little bit more knowledge intensive so that you have a higher level of local content. And because of that, you are transforming your economy.

[Speaker 2]

Okay. Because right now, if I understand, in fact, European is a little bit like unclear. It's like, and at the end, it's like China, because we thought the investment, because China, when they come to country, like for example, Chile, when they say they bring infrastructures, they do it with Chinese knowledge.

So at the end, that helps them. And it doesn't really participate to create that valuable economy for Chile. And European, when you ask them, so what they want to bring, that technology, that idea, they brought the same concepts with other meaning at the end.

And it's kind of unclear about what they want to do. So at the end, it's more similar with China than what I thought. We thought like the investments. Okay, I understand better.

[Speaker 1]

It's as you said, let's say on the good side of Europe, you have your own standard, the ESG standard are much better than the Chinese. Okay, click on Europe, and you know, it's not as good, and yes, that's fine. But in terms of trade, for example, we are, I think it's about 50% of our copper goes to China.

[Speaker 2]

Yeah.

[Speaker 1]

So we are exporting the copper to the main market is China. So given that our economy is working on that, because it's a lot of copper, we know that copper also pay taxes, so the economy is working. Probably, I do not know exactly the number, but to Europe, probably what we are exporting is something about 10%. So you have from all the pie of your export, 50% to China, 10% to Europe. So it does, on that also shaping what you're able to do.

[Speaker 2]

Yeah.

[Speaker 1]

Yeah. So if I have to make a decision, what would you prefer? With whom you can have a better deal for your country?

[Speaker 2]

Yeah, you go with, yeah. No, it's very interesting.

[Speaker 1]

You can say, okay, forget about a partnership, forget about everything, just buy my copper. And I will do, given that I have the resources, I will find out how to use those resources in a good way.

[Speaker 2]

But because it's a knowledge, it's kind of hard to do it. But I was also wondering, last question maybe, about like the ESG. So I don't really know the situation about like, about Chile in terms of environmental and social, maybe gaps related with mining activities, with processing activities in general, those gaps.

But would you say that Europe, with maybe that specific aspect, can bring a positive, like value to Chile in terms of social, environmental gap, and also maybe security aspect for Chile?

[Speaker 1]

Okay. It's not simple to make that assessment, because given that the mining industry in Chile is part of the global industry. So you have, you know, you have the Rio Tintos, you have the Anglo-Americans, you have the BHPs there. Those companies, because they need to trade in the stock markets of those countries, they already have the ESG requirements as part of their internal policies.

[Speaker 2]

Yeah.

[Speaker 1]

So we, as an economy, we're heading into ESG and probably trying to get the, of all the different kind of options that you have in order to do ESG, probably we are doing the higher standard, because that is the policy or the requirements that the Anglo-Americans, the Rio Tinto, the Glencore, the BHP are addressing. So we are moving into that direction.

[Speaker 2]

Okay.

[Speaker 1]

Is Europe, there is any additionality on ESG, you know, in terms of ESG, because of the arrangement that Europe is using to approach to this challenge? I don't know. You know, you see my point.

Yeah. Maybe the key driver is just the BHPs. And the other thing is, maybe it's just nice to have, but it's not making any change.

And probably, I haven't heard from your side, whether you are saying, okay, given that you're operating with the BHP, then we need to find out how we add something else, or to use that in order to make this transit a little bit faster. It's like this kind of disconnection of the two approaches, which aims exactly the same. Both are heading into the same direction, but I'm not sure if the one that started, which is the mining operations, because they need to do it, because they are operating. They are already working on that. Whether they are doing it, disregard what the European Union do. Yeah.

So I think your question is a good question. And because of what I say, given that what are the drivers of that transition is not just the European policy. It's also the policy of the large investors. So if large investors are moving faster, it's useless.

[Speaker 2]

Okay. That's also a very interesting perspective that I already didn't consider. So it's really useful to have that. And to understand that there are already those big groups that have requirements through the markets, through the shareholders, and that are already developing those standards. So is the European Union will be really useful with what they want to bring on paper? Because of the existing nature of the standard pre-existing is quite hard to say.

And it's really interesting for me to hear because I didn't think of that in that way. So thank you very much for it. And it was also my last question, I would say. So maybe, is there anything else that you would like to add and that we haven't covered and that you think that will be useful for my work?

[Speaker 1]

Yeah. Probably in terms of governance, how to build a kind of a shared view of what is the mission, what the future look like, on how to develop a governance that included a participatory process so that the local players, the very local players as well, not just Chile, but within Chile you have regions, and within the regions you have municipalities can participate in that process. I think it's also very important.

Today the society is demanding participation. Participation is hard. To participate in, for example, in the things that we were just discussing, in industrial policy or whatever, you need capacity.

If you're an expert, and I'm not an expert on you, invite me to participate. Again, the participatory, to have a good quality participation or participatory approach, it requires also closing a gap of capacity so you can integrate knowledge and you can integrate point of view and you can have an informed discussion. My point was not to forget about how to take into account the participatory or the participation angle of the governance, and within that also how to take into account the gap in terms of capacity so that you have real participation processes or participatory processes because both parties are at the same level in terms of knowledge, capacity, understanding, so you can share your understanding or interpretations of what the challenge is about.

[Speaker 2]

That's really interesting also, that's governance points, with trying to include regional players and also, as you have stated earlier, with the knowledge gap and how to use personal investment, when you talked about that, really trying to reduce the knowledge gap even in a regional level so that everyone can

contribute in terms of value chain to give its opinion and to make the system work better as a whole. It's a really interesting point that I will consider. Maybe, who else would you recommend me to speak with to gain further perspective on the topic or further insight on this specific topic in general related to my thesis? If you have someone in mind, of course.

[Speaker 1]

The guys of the development agencies, they know quite well this kind of thing, even the people from the World Bank that have been working in Latin America, they have a good point of view because they know the particular conditions that exists in every geography.

They are different and that will be very useful so you can be the World Bank here in Latin America you have the Inter-American Development Bank so the people that work in the extractive or the mining industry there probably are a good connection and then there are consultants like myself I'm working I don't know I can send you a couple of names related to that.

[Speaker 2]

Yeah thank you thank you it's it will be useful to tell us that's perspective so muchas gracias P15 por su ayuda fue muy bueno y creo que va a ayudarme a progresar y a mejorar mi trabajo por la universidad así muchas gracias P15 por su ayuda muchas gracias!

[Speaker 1]

¡Un placer, mucho éxito!

[Speaker 2]

Muchas gracias que tengas un buen día!

## Interview with P16

[Speaker 2]= Gauthier

[Speaker 1]= P16

[Speaker 2]

Perfect. Yeah, for sure. So as you already know, my name is Gauthier. I'm 22 years old and I am doing like a double master degree. So one in business



engineering and another one in international management. And so for my studies, I have to do a thesis because it's my last year of master.

And I choose to do it on the analysis of the European strategy for critical raw material as defined in the CRMA. And we focus more on the environmental and social side. Because I thought that critical raw materials were really like important for the future in general of the economy.

So that's why I was very interested with that. And right now, I'm really trying to have different perspectives on the subject and interview like experts on their field. And last week when I met you, I thought that your perspective was really interesting and I really enjoyed talking to you. And that's why I asked you for that meeting. I can also ensure you that everything that will be said will be confidential or anonymous. I don't know if it will be needed, but I prefer to say it. And also, can I maybe just record your voice like that? I can really send it because I feel that it will be a really insightful meeting.

[Speaker 1]

Ah, yes, yes. You can record it for your own purposes, but not to send to journalists.

[Speaker 2]

No, no worries about that. Like that, I can really focus and have a better conversation.

[Speaker 1]

No problem.

[Speaker 2]

So maybe even if I already know a little bit, could you briefly introduce yourself and explain to me your involvement with critical raw materials and maybe CRMA?

[Speaker 1]

Yes, yes. So I have an engineering degree. They call it industrial engineer. The electromechanics. And I started my career in the electronics industry at the time with Philips Electronics. Yeah, for them, I went, I was there nine years, but I worked three years in Silicon Valley in California.

[Speaker 2]

Wow.

[Speaker 1]

In 2000, 2001, 2002, that was. So that's one main experience. I've also worked five years, Umicore, on the germanium in the site of Olen. And for them, I traveled also to America, to China, Japan, Korea, Taiwan, because there was a terrestrial potential of that satellite solar cell. So this germanium is used in satellite solar cells. But there was a spin-off technology for an application on Earth called CPV, solar cell technology concentrated photovoltaic.

But that hype has gone away. So it's, again, today only satellite solar cells where this germanium is used. And when I left them, I met the Chinese people from Vital Materials. And there I worked nine years for them here in Europe, developing the business, acquiring sites of, yeah, that people were selling or that were in a bankruptcy case. Um, yeah. So the most recent acquisition there was the old five and plus sites in Tilly near Villers-la-Ville.

[Speaker 2]

Okay, yeah.

[Speaker 1]

Yes. So that is now owned by Chinese. And now I will very soon announce the work in another company, also Chinese. Okay. On PVD, physical vapor deposition, pure metals evaporated and deposited in all kinds of application. A very famous one today is the bipolar plate for hydrogen solar cell, sorry, hydrogen battery cell.

But more common is titanium nitride on cutting tool, aluminum nitride, but also decorative coatings on jewelry, all kinds of decoration materials, use such coatings, also wear parts in engines, combustion engine, have certain parts with diamond-like coating DLC and so on. I think there is in Namur now a competence center, very new for such coatings.

[Speaker 2]

It's possible. I really don't know about it.

[Speaker 1]

But anyway, so that's the quick introduction. So I was at the seminar last week for the group. So I've seen the critical raw materials move on and off lists. Yeah. So I'm familiar with gallium, germanium, selenium, indium, bismuth. I see the geopolitics. I see where the mines are and I see who is buying from the mines. And yeah, a lot is from China. And China really has aggressive policies on that. Much more aggressive than America or Europe. That's to which America reacts

and Europe reacts. So yeah, that's a bit of context. But I know a lot of the applications because I've been in electronics industry. So I can see also where these raw materials end up.

[Speaker 2]

Yeah, no, that's very interesting. I will have also some questions about China and the strategy, because we talked about that a little bit last week. And I thought it was very interesting. And I didn't get this insight from other people. So it was great. And also it had to be impressive to work in the Silicon Valley.

It's another subject. But yeah, very impressive. And I was wondering, to what extent does the actual outcome of the CRMA align with its intended strategic goals, like securing CRM in general and then think like sustainable practices? Are you satisfied with it in general? And can you comment on the feasibility of its objectives?

[Speaker 1]

Yes, I think. Okay, there's a lot of focus on the mining. But we should also realize there's still a lot of work in the processing. I think recycling capabilities are well established in Europe. That I think is covered fairly well. But a lot of the processing is still done in China.

And what is... Okay, so we will focus now with this program on the whole supply chain. I have it here in Europe.

But what is missing are intermediate steps to speed up, for instance, bringing the streams from the mines that are not in Europe, for instance in Canada or in Peru, to bring those streams to Europe for refining instead of to China. At the moment, I don't know the policy that covers that because the mine takes the longest, I understood, from all the tasks to be completed. So how will this plan...

Yeah, so you have to acquire, I think, for certain years from external sources. And yeah, there the plan is not foreseen for that. There is some talks with Canada and so on. But Canadians will also supply themselves first. And how about South America? There is maybe some room.

But at the moment, I see no action plan on bringing more streams from the Western world to Europe. If we consider Western world being North America, Mexico, South America. So I think there could be an extra effort needed.

And maybe avoid streams from Europe to go to China, that is also not... or to another... to outside Europe.

This is at the moment also not covered by the... Because if you are a mine in Europe, you can sell to the highest bidder. And if the highest bidder is not Europe, what's their incentive not to sell to the highest bidder?

[Speaker 2]

Yeah, that's true. So you mean for now, there is maybe two points that they need to work on. So more like the strategic partnership with Western world on a concrete way. How can they bring those materials from those countries that maybe need them to do the same time in Europe, basically? Yeah. And the second point is in terms of mining, you would say that they will need some incentive or like mining or like even maybe not processing, but mining at least to not send them abroad. Because, yeah, it's true that we can mine it like 10%, but after that, send it abroad, right?

[Speaker 1]

Yes, there's no restriction to sell it abroad from the European mine. And which today is happening, I think, already. Boliden in Sweden and so on, they do not only sell to Europe. The whole energy question, come back, if you process aluminum, a lot of energy is not just needed in the mine, but also in the processing. So the cost of energy is not the lowest in Europe. And therefore, it could be that the competing region is going to buy European aluminum or European copper because they can refine it at a cheaper cost than what is done in Europe. And that's the problem in the bidding of, for instance, South American materials. You bid with a business case. So if you are a buyer of raw materials, you will check the concentrates in whatever you buy.

Then you put your own yields against that. You put your processing cost and then the market price of the metal you get out, which is going to be copper, indium, can be iron. But if your energy cost is too high, you will not have enough money to bid to the mine because you are limited by your own cost. You will say, I can only bid here. But the competitor who is more efficient, maybe, or has very low energy cost, can bid a little higher.

[Speaker 2]

Because it's a higher margin, right?

[Speaker 1]

Yes, yes, yes. So you must be very clever and smart. So you must have the most competitive or at least equal competitive supply chain processing costs and recycling.

And here, because they can build this great infrastructure, they say, but what is the cost of that operation? And is that competitive in a global scale, considering the labor cost, considering the energy costs? And this is actually the reason why things have moved abroad.

Things have moved abroad to, for instance, China, but also other places, because those places, it's not just the environment, they don't care. That is also changing in the rest of the world. But the cost of energy is often cheaper in those other places.

And I look at the steel industry has gone away here, for the most part, in Belgium, France, because of that reason. But also certain refining costs are cheaper in those areas like China. And that's a bit, yeah, what we have to watch. Because that's been the starting point of the issues.

[Speaker 2]

No, that's really, I would say, interesting also about the energy costs. So there are a lot of things that are in the same time, like, intreshocking, that are meeting with the same aims. It makes the problem very complex to take on, I would say.

And so here we talked about the energy, and also about the cost of it. And in your opinion, what do they need to develop to make companies, it can be companies at the end of the value chain, or companies maybe between mining and processing. What can Europe or the EU develop to make, in fact, the cost factor less impactful?

By that, I mean, when I am a company, like, I don't know, Philips, if they need to buy something. And I see that I can buy from China for a cheaper price. Like, how can they do to, you know, like, reduce the impact of that premium?

[Speaker 1]

Yes, well, I think a more integral approach to look at costs should be considered. If you have a production here in Europe, and you buy from here in Europe, you generate revenues, jobs and profits here that are taxable here. And so there is a certain premium that you should be able to afford to buy locally.

But of course, it's not the benefit to the particular buyer or client. So it's an overall government authority advantage that things are being sourced locally. And that is not, there are no tax credits in Europe to companies, European companies buying in Europe.

There is no tax credits like that. I suspect that the Chinese do have a system where it's very much encouraged to work together. And that's why you get

these fully integrated supply chains that we will have to compete against.

And so the business model there is different. The focus is much more on keeping the value in that region or in that country. And yeah, that is something new for us.

Because in Africa, people care more to sell the raw materials. They're happy to get the money. And there is not a lot of expertise, know-how or technology people there who can do what you are doing. So there is no competition. This is completely changing with China. So then the integrated supply chains are integrated.

They produce a lot of solar cell for themselves, also a lot of windmill also for themselves. So we will have to create huge internal market demands. And that is somehow with tax credits working that there is an advantage to buy locally. Otherwise, when the ministers and the CEOs of companies have no time for this. So these business cases ended up at the purchasing desk. That can be a VP purchasing, a director or a regular purchasing. But in the end, they are buying based also on Excel sheets logic. And they will say, I buy from this supplier and it's this quality. And therefore, my cost is that.

And good supplier in quality. And so I shouldn't pay too much to him because there is other costs. So people make analysis like that for their own individual case. And if you leave it like that, not much will change. Because who has to buy now locally? As I mentioned, there's large projects in China for putting gigawatts, several gigawatts of solar panels in the desert supplied to all country with green energy.

Also, windmills will be installed. So based on CO2 tax that people think will bring the solution. And that's not so sure. Because yeah, okay, India is maybe less active in this. But they're also doing certain things on solar. They're also green lighted, huge budgets. So it's okay. It should be, of course, no CO2, maybe from everywhere in the world. But where is our unique advantage? That is not so clear to me.

[Speaker 2]

So just to be sure if I got it. So if I am a company, let's say in Europe, and that I buy from Europe, as I create job, as I create like economic value in general, and that I distribute, like the government capture a little bit of that value. In fact, it could be great that the government redistributes this value that has been created to in fact, promote as a company to buy and still buy from Europe and

reduce the gap that there is between like Chinese or even like Egypt and the material, of course, but like another supplier from third country, if I got it.

And yes, the second point or so, you talked about CO2 taxes. So you mean right now, like, do you think that Europe has an advantage in terms of like green production, for example, because here you mentioned, for instance, that China is really trying to develop those big infrastructure to have clean energy. And so at the end, the gap between like, if I understood well, the gap between like green materials in Europe and China will not be what we are thinking right now.

[Speaker 1]

Yes, I think indeed some people in the politics are over optimistic that this will become the unique differentiator between Europe and let's say the rest of the world. And I think that is overly optimistic, given the size of investments happening today in the USA into wind and solar and also nuclear and the same. I think actually the biggest deployer of solar panel in the world is at the moment China.

So it's not so difficult to predict. I don't have the exact numbers here. But you can see today who is buying most of the solar panels. You can calculate how much gigawatt that is. And then you can steer it. So we can say, because they could steer it, this steering is not so clear to me.

But what if they say we steer it all to the metals industry and now all our metals are green? How can you really verify that within a country? I don't know.

But I think they are already at this. So if we put as Europe really the focus on a certain industry that must have the lowest CO2 footprint possible, the competing regions can direct their available green energy also to those sectors as a priority. But I think, OK, that's in the short term what they could do in the long term. I think everyone is investing big time in wind and solar. Nuclear Europe is behind, especially in the game playing in Belgium. This will in the long run hurt us. What if there is not enough wind, not solar? And the combustion gas furnaces have to run to generate electricity. Even we want, we are stuck with CO2 footprint suddenly. So this is, of course, good they do that. But I would not bet on it. This is going to bring us an advantage to the rest of the world. The rest of the world is definitely also in this game.

[Speaker 2]

No, that's very interesting because like a lot of time we hear that Europe is the best, like the most sustainable in general in terms of production. So that's good to have that perspective too. And I was also wondering, like, yes, if you could

describe me, because you worked, for instance, for Vital Materials, which is, I think, a Chinese company, like and you seem to know a little bit about Chinese, so it's working. So could you describe me like the typical strategies of Chinese company that they use to employ like strategy and all those strategies differ from European company to see if there is a difference and something that Europe can improve with that?

[Speaker 1]

Yeah, I think so. Europe has the history. Companies like Philips I work for, they were fully integrated. They were making the resistor and the chip and they were making the plastics and they were making the TV tube and they were making, they were fully integrated. And then we abandoned that also in America. We chopped companies apart and we think they're too big, it's conglomerate.

We should focus on what we're good at. So often in Europe, we say we should focus at our core competence. But this I don't see in China because you can look, well, look at the Xiaomi. We know it from the phone. Today they have an electric car. Apple does not, by the way. BYD, we know it from electric cars. Now they have a bus. If tomorrow we can buy a Wallon car.

So the Chinese see it in a much bigger scale and a much more integrated scale. And the companies grow all the time, diversify basically. And this in Europe is a bit different. We have the mentality, yeah, it's from the business school. So you must, you could follow MBA and then they train you to focus on your core competence. But that is not what I see there. So they are continuously looking to expand into new territories. So that's how you get supply chains that I wonder how can you compete against that? Because we have a different structure of our corporate life. So the Chinese will focus on the upstream. And so to go as close as possible to the mine. Also go downstream to cover as much as applications as possible. So in the metals, what I've seen is it's not enough to say I can produce germanium or I can produce gallium. And now I want to produce, okay, they started like that. But there's always people busy, oh, I want to go more pure germanium.

I want to do more applications. Infrared, glass fiber and optics. And so they are continuously expanding the field of markets they serve. And also the technology more pure chemical form and oxide form and so on. And that is very interesting because they do not become single application dependent. If tomorrow BYD cannot sell cars, they can sell bus. And if tomorrow the buses are sold, so you can distribute a bit your business risk. And that is also different in Europe. We are focused a lot on business units, business line. Let's do that.



And how much have those companies really changed in those existing businesses? They focus on what they do.

And that's a different approach. The Chinese, they say, I think the study of the Chinese is the winner takes it all. And if you look at Apple, only the biggest guys really win.

If you look at Meta, Google, Amazon. Yeah, I think it's a view in China that you must be big, very big to win. And so, yeah, these companies are like the vital materials. There is no similar company like them. In a company like them, you can say, yes, Umicore, but only for a few metals. You could say, yes, Umicore, but only for a few metals. You can say Indium Corporation, yeah, also for a few. So there is no equivalent to that. And yeah, that's a bit what I see.

In the metals business, it's very scattered in Europe. It's really very scattered. Yeah. For instance, if we change it, then you should say, okay, Rio Tinto. We should know them for Tellurium. We should know them for Indium. But we only know them for iron and we know them for aluminum. So for other basic stuff, they're not into these applications. That's their customers. And yeah, then it becomes more difficult to close the loop with recycling. Because your metal is gone. It's with some other customer or another application that you don't know.

So to have the whole system really work like we dream with the mind and application, you must almost have companies that are in these fields together. Otherwise, how you capture back the recycling streams, that could be a challenge.

[Speaker 2]

So if I understand well here, the fact that China and companies are very integrated supply chain, it's like an advantage in terms of de-risking their activities and also to be able to close the loops. And economy of scale. Yeah. And that's something that in Europe we don't really have. Because if you took your example, like with Rio Tinto, they are known for Rio Tinto Aluminium, Rio Tinto Zinc. But after that, they sell it to another company. And at the end, that value.

[Speaker 1]

The strategy of BYD is very obvious to me. And there is the logical consequence. Their goal is to kick out, to put so much. Their goal is to put so much pressure on the supply chain. That others will start to suffer. And they don't have to be killed. They will die by themselves. And that's the gentle way of fighting.

[Speaker 2]

And like talking about it. So let's say I put a lot of pressure on your company. Your company is dying.

So after that, let's say I want to buy it. So I am Chinese, I buy it. So that's I think what happened also in Africa, where a lot of companies are now acquired, like with China. And you were talking also about Europe. Some companies are acquired in Europe. So at the end, I was wondering.

So when you do some strategic partnership, it's to be less dependent or so of China and diversify. And even in Europe, if you tell me that there are some company. Because I didn't think at first that you, the fact that there is Chinese company in Europe.

[Speaker 1]

Study yourself online the Tilly case. Thiele is an example whereby the pressure is so much put on the five and plus group. That they are making losses in the bismuth. And the bismuth side for them is Tilly, Villers-la-ville, or near Villers-la-ville, and so, because Tilly is Tilly, it's a village, so, yeah, and now it's owned by their main competitor, because they, what happened is that the Canadian one, actually the Canadian wanted to shut down the site, and then the Chinese came to negotiate to take over the site, because then jobs can be kept there, I think there's 50 to 60 people, and so now the Chinese, basically the site changed ownership from Canadian to Chinese, and the activity is the same.

[Speaker 2]

And, yeah, and I was wondering also about that, so, like, I guess, so even if you're like, so maybe a stupid question, but even if you're, let's say here, you change from Canadian to Chinese, and I guess the authorities, I mean, everyone knows that the guy is a Chinese that did the acquisition, but it's still considered as to be European company, right, and it's owned by a Chinese, so that's...

[Speaker 1]

Yes, what is produced there is considered, well, there is the European product, and then there is the company logic, so in the products, whatever is produced there will be considered a European product, where they get the advantages, again, in the supply of the raw material, because now they're part of a huge group, which can vary in the whole world, it's by China, but they can buy Vietnam, Peru, whatever, they can buy raw material and funnel it to this site,

that is something that site on their own could never do, because if you are in Chile, you don't know the whole world of supply chain, and so they can feed cheaply the raw material in it, and then it's more easy to make money, and they also will bring in their own equipment, which they have designed with engineers, so the logic in equipment is that it's half the price from German equipment, when you buy it in China, I don't know why that is, but so people talk in the news, yeah, so many millions investment, okay, but this is money, so with the money you buy something, the thing you buy, is it from Belgium, or is it from China, and there is often, it comes not from Belgium, in EOS is the same, in Antwerp, you can talk a billion dollar investment, but it's produced here in Belgium, or otherwise the number doesn't make any sense, or you need to break it down, you have to say, I invest 1 billion, of which 50 million I buy in Belgium, I don't know the number, but this is often in rhetoric of politicians, these numbers, it's just a number, and we're already happy, no, if you're a politician, you should question how much you buy as equipment in Belgium, yeah, and so we are not alert enough.

[Speaker 2]

No, that's very interesting, because at the end, when I, I mean, I talked a little bit with someone from Chile, and they were telling to me, that's a value, like they really wanted things that were built in Chile, for instance, and at the end, that's the same thing that we get in Europe, right, we should be able to, when you have investments, to buy from Europe, and there the value will be created.

[Speaker 1]

Yes, yes, indeed, so we can tell you that the cost is half of an equipment, so if you make the capex, you can buy more equipment for the same money, or you spend half of the money, that's a big difference, and that's, and yeah, that's again, if you leave it up to the buyers, and the project teams, the business people, I don't see that change that will come from, or, so we have not, so Europe, so the Chinese are better, and also America try, but okay, but especially the Chinese are very good at, at having total supply chain strategies, including towards the companies and the businesses. The European strategy will be happy if one company do a mine, and another company do the refining, and another company do the recycling, but is that how we're going to win, against people who are fully integrated and cover, yeah, the whole supply? That remains to be seen, and there we need more incentives for that, also for that supply chain to work together, because, well, it's easy to get subsidy, and now I do refining, I build a factory for refining, based on European subsidy, but I

will buy my material in China, in Russia, or in South America, and not European mine.

[Speaker 2]

That's true, so you need that coordination, otherwise, like everyone will be working on each side, and you will buy, generally, at least if I were the one that buy it, I will buy the cheapest one, because I'm businessman, and I need to make it work, right? That's a logic business. Okay, that's a good thing to see, and I was also wondering, maybe a little bit related to that, so for the CRMA, there are a lot of, I mean, not a lot, but they really try to be, maybe, a little bit more transparent, so if you are a company, they want you to do some reporting, and to see, like, from where are your materials coming from, so do you think this point could be useful for what you have said, to see, I can see that my materials is from China, for instance, or do you think it will just be an additional burden for the company to do all this administrative stuff?

[Speaker 1]

Well, okay, but there is techniques, and there is, with custom codes, for instance, you can track a lot, if material come in, and also with what they call, so custom code, and country of origin, and on country of origin, you, well, custom code, you cannot really cheat, because the customers will check it, and country of origin, you can cheat, but it's highly recommended not to do so, but I think, probably, there needs to be more control on that country of origin logic, it's based on, for instance, if you, the country of origin can be Europe, if a significant added value comes from Europe, they call it, the correct naming is, if you apply material transformation, so if you, for instance, put a metal of 4N purity, and you make it into a 6N purity, that will not be considered a material transformation, but other extremes, if you take an iron ore, and you make it into a chassis of a car, of course, that's, even the ore comes from China, your chassis can still be called European, if that is taking place here, but that will become very important, especially to counter the Chinese sites of companies in Europe, for instance, BYD, how much of the car value needs to be added in the European site, to call that a European car, once the BYD factory is up and running, so, and that is something, I don't know if that people have defined that sharp enough, but there you can play with this, to steer the country, so the European content, or the European origin of the material, or the product, you can play with that, you can say, hey, from now on, as Europe, I say, the value added must be 50%, not 20%, I don't know what is it today, but you can make it very more strict.

[Speaker 2]

Oh, so you, so if I understood well, so, let's say China by, I don't know, I don't remember the particular, I think it's maybe here, I don't remember exactly, China by, it's in Myanmar, where it's like civil war, but in Myanmar, they don't do transformation or anything, they just send it to China, so if I am China, just for the logic, it's not an example, so if I am China, I could say, listen here, we process this, so it's from China and from Myanmar right now, so I, for me, because it's a story, something I didn't know, so I thought, for example, if it's extracted in China, in my, just before what you said, for me, if it's extracted in China, it's from China, that's what I thought, so there is a fact that there is a percentage, and even BYD, if they do x percentage in Europe, it can be considered as European, even if it's from China.

[Speaker 1]

Yes, correct. This whole topic, for Europe, is kind of maybe new for you, but this whole topic became very visible when America imposed the 25% tariff on Chinese products. What the Chinese have then done is divert some of the production to outside of China, and initially, there was quite some, no checks, basically.

If you put your production in Indonesia or Vietnam, how can America check that really something is happening in that building? So, there was a lot of doubt that, indeed, the country of origin became Vietnam or Indonesia, so now the checks are more strict, so you could see from the lesson learned there is that you have to check it, and you have to have your definitions straight for many cases and many scenarios, so you really need to think about it, but assume, for instance, BYD, that they sell like a kit to the factory in Hungary, and all the factory does is assemble it, the car. It's not a value to say it's now a European car, and probably they will refer to other things that we have in our law, that you and I don't know, but they will study the law, they will analyze the law, and they will apply the strict minimum that the law requires, and knowing the weakness of the European law, you can already expect there will be strange outcomes of that, that people will say, really, is this European?

So, we have to anticipate that, and we task forces and really be smart about it, because you know what is coming. The BYD suddenly comes to Europe, that's to make it a European car, not just for Europe, they will export it to America, in a state 5% tariff.

[Speaker 2]

That's really interesting, that's super interesting, that's the thing, to be honest, to check it further, it's very interesting.

[Speaker 1]

That's how the game is played, that's how the games are played.

[Speaker 2]

That's like chess game, like, yeah, wow.

[Speaker 1]

Yes, the Chinese are very good at that, so that's, yeah, and this is something we sometimes do not, we don't think so smart.

[Speaker 2]

Yeah, no, it's very good, and I was also wondering, maybe, so about, they are talking about a joint purchasing system, and do you think that the fact to aggregate the demands will be useful, or will have an impact? Because you were talking at the beginning of the interview, for instance, or so, maybe about other third countries, so I guess if you are united demands, you are maybe more powerful to deal, and to have a deal, but I'm not sure about that, and I don't really know, what do you think about it?

[Speaker 1]

Yeah, sometimes it sounds nice to have a 10-year deal with fixed volume, and everyone is happy, but you have to be with two to close such a deal, and so the source, where you buy from, he may have another view, he may be very wealthy and powerful, and say, you know what, I like to play the monthly game, and let's see if the price is high, I will produce a lot, the price is low, I will not produce much, and it depends, what they propose there is complete opposite to how the metals industry works.

There is a lot of speculation, there's a lot of traders, there's a lot of stockpiling happening, and it's always another one blame each other for the speculation, and someone will say, it's the mine, who don't want to supply me, and now they say they have a strike, and because of the strike, they cannot supply me, but that's also speculation sometimes, sometimes fake story, sometimes the speculator is the client, who suddenly put in big orders, because he sees the price is low, so gold is low, let's buy a lot of gold, and then everyone complains, hey, I cannot produce so much, so sometimes he is speculating, and sometimes it's the end user speculating, also in recycling, there is a lot of speculation, people can pile up, you can recycle, but no one tell you, you must

do it today, so I collect, and who says I must recycle now, maybe I wait till the price has doubled, then I recycle, so in recycling, there is all kinds of speculation in the whole supply chain, which creates a huge profit for many people, some lose, okay, but not the same as a nickel going to 100,000 two years ago, three years ago, there is a fool who paid it up, but you see, someone enjoyed that, and so what they're proposing there is completely against how this industry works, as far as I know, maybe I see it's a lot of this, there's a lot of people, with oil, they also speculate, produce a lot of oil, so this is the question, this is a good goal, but how you handle the surplus, someone need to, they tell you to produce every month a certain amount, but what if the order is not there of your customer, someone needs to come in, I don't know how they call it, dummy quantities, or buffer quantity that you can put it somewhere, because...

[Speaker 2]

No, that's super interesting, and you talked so quickly about recycling, so I was wondering, from your perspective, how effectively do you think that the CRMA promotes circularity, do you see maybe any gaps related with, can be recycling, but circularity in general?

[Speaker 1]

Well, yeah, so, but the people outside Europe will say that in a closed-loop system, so they have to focus also on the, how should I say, so some people think recycling means it stays in Europe, and that's not necessarily the case, certain things are being recycled in Europe that are not from Europe, so if I get a certain stream of material to recycle from America, this is not Europe, it comes to Europe, because I have the recycling capability, I must return it to the client, of course, it's his material, I just get a treatment fee.

So, this is one example, yeah, because, I don't know, in the critical raw material act, that material must stay here, so no one will work from outside Europe with us if there is no system to send it back to the client, which is outside Europe. But what about streams that we can sell outside of Europe? So, I have recycling stream in Europe, but I get good conditions from, for instance, China, they can recycle it and send it back to me.

So, this, you can recycle, so there are also people thinking, okay, I do recycling as Europe, and now I'm the only one in Europe doing that. No, you will be in a competitive landscape, that's still in a global market. So, yeah, we have to recycle more, but you can recycle with, does it have to be Europe?

[Speaker 2]

Okay, I get it. So, when you say, like, it's 25% of recycling here, so you need 25% of recycling, I assume that's 25% that's actively is recycling in Europe. And it's true that maybe I assume the fact or so that those things that are recycling stay in the European economy.

But what you is telling me here, you are saying here is that first, even if it's recycled, it can come back to the client, so it can go or so outside Europe, or you can sell it or so abroad. And for your input stream, you can also get it from outside Europe, right? So, there is a lot of things to look at, because those recycling materials can also go abroad, and you need to keep it at least here, right?

[Speaker 1]

Yes, yes. Correct. So, that is a topic.

And the recycling streams need to be fed. So, you need production in order to have recycling stream. So, the question, what is the raw material you are putting in to get the recycling stream? And if you put Chinese material in, if you have waste, or in your production process, for instance, and you recycle that waste, do we then call it European product? Okay. That is sometimes what also happens is that people through the recycling loop change the country of origin and say, and now it's European product. But this product can only survive based on input. So, recycling is a bit of a story. Reuse is a better story. You can reuse your phone, reuse your car, but recycling means you must keep feeding it with something.

[Speaker 2]

And so, yeah. Okay.

[Speaker 1]

That's a bit, that should be a balance. You can recycle Europe or something that is not produced here.

[Speaker 2]

No, yeah, yeah. That's really interesting. And maybe do you see any other gaps?

So, you already talked, maybe it was a gap with China with the fact with the environmental things, but do you see maybe any other environmental gaps related with the CRMA in general?



[Speaker 1]

Oh, yeah. Okay. I heard a lot of the permitting in the meetings there that people say it takes very long and so on. Yeah. Okay. I cannot really comment on that. Yeah. Yeah. I can just say, I'm sorry, you know.

[Speaker 2]

No, no, no, no, no problema about it

[Speaker 1]

And it's about the environment.

[Speaker 2]

Yeah.

[Speaker 1]

I think there is the, well, just last, well, it is a point because just last week I was talking to Portugal, a factory for coating, metal coatings, and they were complaining about this idea to mine lithium in Portugal because the lady says to me, but P16, Portugal is not a country for mining. Our business is tourism, we cannot have this mine in that very touristic area, this will destroy the whole landscape and so on. So this is sometimes in conflict, the economy that is there, there is an economy there which is an interesting economy, it's a tourism, but it's in conflict with the mining goal and those two, I don't know, I'm too far away from that.

But we do not have unpopulated areas here in Europe where you can just mine as much as you like and there will be always opposition, yeah, because there is already something there. And that is something I cannot judge whether it's, we should really destroy the landscape in Portugal because we do not want to have some sort of a good relationship with China. Sometimes people talk too much like China is the enemy, even to, okay, I think Russia is an enemy for Ukraine, but it's not for Europe, we should not exaggerate these things, but by doing so, okay, they want to do fine, but you cut out a lot of potential cooperations.

Russia has a very rich nickel mine, aluminum mine, which we all need, we could save ourselves a lot of pain. You can work with huge inventories to create buffers that if there is again an issue like with gas, the next day you suffer, but in metals you have a way to stockpile it so that you are strategically independent from Russia, at least for a number of years. So with metals, the nice thing is you can stockpile it, gas is more difficult, but here we can create

strategic buffers if you say, okay, I want to do a nickel with Russia, let's do a stockpile, then we are not immediately affected when they want to use it as a weapon against us.

So, yeah, I don't know, this needs to be studied, but we today go very quick to the conclusion that Europe needs to solve everything by itself, and this for all the metals on that list.

[Speaker 2]

Yeah, and I was very quickly wondering also with stockpiling, like if you do stockpiling, do you have like, I guess you have effects, right? Because if a country like see you doing stockpiling, the price can increase, and I guess so, I'm not...

[Speaker 1]

Yes, it can, but you can do that in a subtle way, you can do it, if you ask for instance copper, there's a lot of copper being bought in Europe, if you ask every potential buyer to buy a bit more, and send it to a specialized location funded by EU, and they would create a buffer capacity for one year of copper, or maybe two years, split up over two or three years.

[Speaker 2]

That's very clever, yeah, I have to say that's very clever, and... That's the best place to do it. Yeah, that's really good.

And I was, maybe last question, I was, it was maybe more on the social side of it, so here we talked at the beginning that China or other countries, like in more developing countries are really trying to have like cleaner energy, and maybe switch to it. So in terms of our environment, maybe that Europe doesn't have that specific edge, or at least less than what everyone is thinking, but for the social side, I was wondering if you see maybe any gaps, or, because on the social, what do you think about like the social gaps, or social things in general, very quickly about that topic, and for Europe with the CRMA?

[Speaker 1]

Yeah, yeah, yeah.

[Speaker 2]

Do you see any gaps, or that's maybe the potential advantage of Europe, I don't know.

[Speaker 1]

The social gap, yeah, hmm, yeah, I sometimes wonder if the issues we see higher level now, the cheaper car, and then we think it's because of unclean energy in China, and then we focus on that, but this soon we will find that is not the case, they also have a lot of clean energy, then we think it's a legal subsidy, no, no, no, it's maybe also not that. So in the end, you may come into the social issues, I sometimes wonder about that. Let's take again the example of Van Hool EOS, but what if they have to compete against a factory where people work 60 hours a week for less salary, and in Belgium we want to work 32 hours for the same salary.

So at some point you will have to define, and child labor I understand, this is very obvious, but what about working week? What if in China it's 60 hours, and here it's 38? How can you compete against that?

So do we really have to go to these granular discussions? We have 30 holidays, they have 10. So this is also adding cost differences in products and so on, and I don't know, we need to go there, but when you ask me about the social gap, these are things that I wonder.

How can you make a solar panel as cheap as in China, in Switzerland, where people have 40 days of holiday and five times higher salary? So this doesn't work, and yeah, the social aspect, I think there are, we must be realistic, there will be a more tough time for us, because there's a lot of hungry people in the world who want to get a better life. They want to work day and night to get there, and they want to conquer the world. The Indians think like that, the Chinese think also like that. There is a few billion people.

[Speaker 2]

No, it's very interesting. Thank you very much, and maybe is there anything else that you would like to add, that you think can be useful for my research and that we haven't covered here?

[Speaker 1]

No, but once your thesis is issued, I'd be interested to read it perhaps, or at least certain pieces of it, because you have a lot of area to cover, but it's exciting what you're doing. So yeah, I hope your work will be read by a good audience, because this, yeah, we must think very carefully about where to spend all those money that Europe wants to spend to get the best outcome for all of us in Europe. That will be key. And so it's good that you take time to reflect, talk to different people, write it down, but I think that's a very good start.

[Speaker 2]

That's true, that every time we, I mean, I discover new things, and here, as I expected, the interview was, or the meeting was very interesting, a lot of new perspective. I will need to re-listen it to really get everything, and after, like, look deeper, but it was super interesting anyway. Thank you very much. And maybe do you have someone in mind that you can recommend me I should speak with, or like, to gain further perspective on that topic?

[Speaker 1]

Maybe more on the mining side than probably, right?

[Speaker 2]

If you know someone that's...

[Speaker 1]

I will think about it, yeah. I'm really more in the downstream, as you see, but let me think about it if I find someone, yeah.

[Speaker 2]

Perfect. So thank you very much, P16. And of course, I can send you the work once it's done.

Thank you for all those insights, super useful, and thank you very much for everything, P16.

[Speaker 1]

I wish you a great thesis.

[Speaker 2]

And I wish you a lot of success for your new position.

[Speaker 1]

Yes, yes. Keep it quiet.

[Speaker 2]

No, I don't say anything. See you. Ciao, ciao. Have a nice day.

[Speaker 1]

Bye-bye.

## Interview with P17

[Speaker 1] = P17

[Speaker 2] = Gauthier

[Speaker 2]

No, no. Don't worry about this. But thank you for your time and also for your willingness to answer my questions.

So maybe just quickly, I will explain to you the context of the interview. And after that, I will ask you to quickly introduce yourself. So in fact, here I am in final year of a master degree in Louvain, and for my thesis, I decided to focus on the European strategy for critical raw materials, more specifically as defined in the CRMA.

And we focus more on the, let's say, sustainability, environmental and social impact. So that's why after that, I've seen that a big part was also about certification scheme. And I really tried to interview different experts to understand it better.

So also, I can ensure you that everything that will be said during this interview will be anonymous, confidential, even if sometimes not needed. And so can I maybe just record your voice like that? I can focus on.

Yeah, perfect. So can you briefly introduce yourself and explain me a little bit your links with critical raw materials and certification schemes?

[Speaker 1]

Sure. So my name is P17, and I am the regional lead for Europe for a Responsible Mining Certification Company. And before joining this company two weeks and a half ago, I was the batteries and supply chains policy manager at Transport and Environment, which is an environmental NGO. So I worked extensively on the Critical Raw Materials Act then, and will continue. Well, I will work more on the implementation side, I guess, in my new role at this Responsible Mining Certification Company.

[Speaker 2]

Perfect. And that's really interesting. And it's so much a lot with the subject that I am trying to explore. So I was first wondering, like, I guess you have seen like the CRM Act in general. And so I was wondering, like, how do you evaluate the mandatory criteria for the certification schemes that are stated in the CRM Act in general? And are there some points of improvement in European that are needed or some gaps maybe?

[Speaker 1]

Yes, for sure. So I'm just going to open the annex of the CRM because this is really where I think the biggest improvement point.

[Speaker 2]

Yeah, I think it's Annex 4, right?

[Speaker 1]

Yes, but actually, I need just a second though, Annex 4. Yeah, for sure. So, yeah, so actually, in Annex 3, where it talks about the recognition criteria for strategic projects, in point, I'm going to share my screen because maybe it's easier.

[Speaker 2]

Oh, yeah.

[Speaker 1]

Because it's actually a technical point, but I would appreciate showing you in the right way. There we go. So we are in Annex 3 and in point 4.

[Speaker 2]

Yeah, yes.

[Speaker 1]

Point, this point, which has no name.

[Speaker 2]

Yeah.

[Speaker 1]

But this is where I want to draw your attention. And what I really think the European Union should take a step back and look carefully at this is because here it basically says a strategic project may apply to become one and it needs to meet these things. However, it may also attest compliance with the criteria. Now, the worrying word here or the bad word that I think should be improved is attesting compliance because it suggests that certification schemes can work as a way to attest compliance, whereas they should only be actually supportive, you know, a support to compliance or a complement to compliance because companies must respect the law and a certification scheme is not a proxy for respecting the law. Does that make sense?

[Speaker 2]

Yes. So if I understand.

[Speaker 1]

I'm going into a very technical, but I think at this point of your thesis, it's interesting to go technical.

[Speaker 2]

Yeah, yeah, yeah, you're totally right. So here, that's also a question that came to my mind. So if I understood well for that specific point, so you can have certification scheme to attest it or you can also choose, let's say, to follow the law and different options like that. So do you feel that's like in the CRM Act, for instance, there is too much focus or maybe too much responsibilities for the certification schemes and.

[Speaker 1]

Yeah, so I think there are two things, right? So the objective of the CRM Act is really to increase the security of supply for Europe and Europe intends to do so in a twofold way, one with projects inside of Europe and the other with projects outside of Europe, because ultimately the geological and industrial capability of Europe is not infinite, especially on the geology side. And this is where, right, whereas in the EU, the union can control the laws and regulations that are put in place, like the habitats directive, the water framework directive.

It cannot do so outside of the EU borders, right? It cannot tell a company in Chile, you need to respect the water framework directive because, well, that's just simply like not possible and not OK anyway. So this is where certification schemes come in place and where the commission wants to use them.

Now, what is wrong is to solely rely on a certification scheme, right, because first of all, they're not all created and managed equal. And secondly, the way, right, that the audits take place or the information is shared and made available changes a lot. And again, even if it is a good standard, such as the IRMA one, even then lawmakers shouldn't rely only on that as a source of information. The same way they would not rely exclusively on a report from Human Rights Watch.

[Speaker 2]

OK, I mean, you know, yeah, yeah, it's it's make a lot of sense to me. So what would be like, let's say your recommendation on that point. So would you say that's the.

[Speaker 1]

I mean, so it's up to that sentence that I showed you that we cannot just say the companies may attest compliance. They should be able to support compliance via certification scheme that has been has these criteria, because then we go into and explore the criteria. But actually, the key word there is from a legal perspective, is attesting versus supporting compliance.

[Speaker 2]

OK, I understand. So in fact, they should have a tool, let's say, or different tools to attest compliance and the certification scheme would be more like act as a support, like a like. On it.

[Speaker 1]

Yes, it's one tool of an array that they can use.

[Speaker 2]

Yes, I understand. And I was also wondering, like, what do you consider is the most important criteria for like certification scheme in general? And so if you maybe foresee different like challenges related with the multi stakeholder approach in general, because I think it's mandatory in the CRMA. And also it's an approach that Irma take when I mean, when I look at the video you provide me.

[Speaker 1]

Yeah, yeah, yeah. So indeed, like the multi stakeholder governance is a key element because and if you go to Article 2 of the regulation, there is a definition of the governance there that was drawn up by co-legislators. Now, Irma goes a step further because Irma talks about equal multi stakeholder governance.

Right. Where by industry and civil society affected communities, they have equal powers in the governance system, whereas the CRMA, they really didn't want the word equal in. So we just have multi stakeholder governance.

But the positive thing about multi stakeholder governance, especially if it's from the outset. So it's from the creation of the standard. Right.

Not just at some point, I wake up in the morning and I say, now I'm going to have on my board some civil society. It's really that collaborative approach to the development of a standard to face because that's what we're talking about. But ensuring that actually the input and the feedback that is given on a constant



basis is not from an advisory role, but it's actually from a role where this is all taken into account.

[Speaker 2]

OK.

[Speaker 1]

And only equal governance ensures that.

[Speaker 2]

OK, I understand. So just rebounding on that. So if I understood well, there is also motivation, I would say, to try to develop like European standard or international standard in general for like certification scheme.

And here, what would be the challenges or risks that could arise from it? Because if I understand well, here they didn't want to put the word equal in it. And it's super important.

So if you try to have like European standard for certification scheme, because right now you have different bodies that deliver it. And I was wondering if there is any maybe things related to that.

[Speaker 1]

Yeah, I mean, traditionally, traditionally, trade associations have played a big role in this work. And that is associations that defend the interests of industry, right, as the name suggests. So I guess like on one side, it is very difficult for industry to step out of that model and to say, actually, I want to create something that benefits multiple organizations or multiple stakeholders.

There is, of course, and there will always be and there should be a role for trade associations. Don't get me wrong, like the Euromines or Eurometaux or ICMM, right? But when we look at development of a standard that has impacts on so many different stakeholders from labor unions, indigenous peoples, et cetera, that's where that co-creation process, that equal governance really is fundamental.

So in Europe, there have been some efforts around standards development in this. But traditionally, either they are super technical. So like CENELEC or ISO standards, right, that they really, they're apt to tell me how this pen has been made, right?

This pen is conformed to the ISO standard to ensure that a kid doesn't swallow this, right? But is ISO, which is governed by engineers, traditionally apt to

assess human rights violations?

[Speaker 2]

Hmm.

[Speaker 1]

You see it?

[Speaker 2]

Yeah. Okay, I see. And also, I was wondering, maybe as a challenge related to certification scheme. So do you believe that the fact that in fact certification scheme is also a little bit of snapshot approach? Do you think that it's accurately reflect like company's operation? Or do you think maybe there are issues related with that to assess that, for example, a mining company, in fact, respects the social and also environmental impact?

[Speaker 1]

That's a great question. I think, as I said earlier, right, certification schemes, and this is also what Irma believes, they are one tool.

[Speaker 2]

Okay.

[Speaker 1]

But they put, should never replace strong laws, especially, you know, strong laws that govern environmental protection and human rights, labor rights, etc. But also due diligence laws. And this is where I think Europe is really showing leadership by putting in place, you know, *devoir de vigilance*, right?

That's what we're asking companies, where there is a constant effort of engagement and monitoring. Now, the certification scheme and audit is part of that work to actually understand what is going on at a site. But as you say, it's a very specific snapshot in time where companies prepare.

But again, you know, there are plenty of auditing schemes and certification schemes out there that the audit is done in secrecy. You know, it's done where the auditors go and agree with the company and that's it. They don't interview workers. They don't interview local communities. They don't interview the civil society. So is that a truthful picture?

Not really.

[Speaker 2]

Okay, I understand. And also talking here about like, sorry, auditors in general. So in fact, if I understand well, for a lot of standards, like, and even for IRMA, if I get it correct, like, given the fact that audits are often conducted by external companies, which may have some relationship, for example, with mining or like, anyway, it's like external company. What are the potential issues that you see are related with that conflict of interest and how can it be mitigated and do you think that it will impact badly also the CRMA and the vision of sustainability in general?

[Speaker 1]

Yeah, I think of course, you know, what you're talking about ultimately is that tension, right, between, you know, me saying also this tension exists even within civil society, those that want to meet climate goals and those that want to defend environmental, you know, laws, right. So the best way and I think that IRMA does this well is to create a trusted space for dialogue where people can build a common vision. Now, as you say, you know, then there need to be guardians of this trust system. A way that I think IRMA does that, for example, is by fully publishing the audit reports, which I cannot remember if in the end we managed to get it in. Yeah, so for example, in annex 4.e, it says it includes requirements to ensure an audit report established at site level, something that as civil society we would have liked to see when we were doing the advocacy there was that the audit would have been publicly available.

[Speaker 2]

Okay.

[Speaker 1]

So IRMA does that, but many companies don't do that and they don't want to do that because it's like, you know, showing your dirty laundry. But that provides such a good way of of interaction and of understanding what's going on and how to improve it and how to address it. Like we know that companies have an impact, any company does. So how can we really improve on that impact?

[Speaker 2]

I understand it. And maybe do you foresee maybe or do you see any other maybe technical or even qualitative gaps inside the CRMA related with due diligence in general or certification scheme that's or additional elements that you would have loved to see in the final acts?

[Speaker 1]

So the due diligence, I guess like it's complementary to because for due diligence, we have the corporate sustainability due diligence directive, which is a different law. And for example, that law is not so strong on environmental protection, on environmental due diligence, it's stronger on human rights. So it's good, for example, that the Annex 4 has a list of environmental risk categories. Now, an important thing that would have been good to see, for example, is an explicit mention of the rights of indigenous peoples.

[Speaker 2]

Okay.

[Speaker 1]

Specifically via free ensuring free prior and informed consent. That is something that is missing from the from the text. I mentioned the transparency of audits, the equal multi stakeholder governance.

[Speaker 2]

Okay.

[Speaker 1]

Right. But other than that, I think it's a good it's a good law.

[Speaker 2]

And I was also wondering, because sometimes there is a hard, like very good laws, but when you try to implement it, it's a little bit more complicated, I would say. So that's was so one of my question, like, what are do you think what will be do you think the key challenges associated with implementing and monitoring all those aspects related with certification scheme and that part of the CRMA? Like, yeah.

And also, I was wondering, another link to that, if there is like a surge in demands for the certification scheme, like, does company like IRMA or other company like that have the possibility to respond to that demand? Because I understand what it's demand time and you have audit companies.

[Speaker 1]

Capacity building. Yes, absolutely. So I'm going to start with your second question. Indeed, I think we will see a surge in demand for independent auditing services, not just in mining, but across all industries. I think that is a trend that is

a has no way back. And IRMA is indeed trying to scale up capacity by bringing on board more auditing firms, because IRMA does not do the auditing, right?

That's done independently, which is, again, an important point. So, yeah, so that's, I would say, like one thing that, you know, we will see happen across the board. Not just in mining, but also like in processing, for example.

I'm not sure about recycling, how much we'll see there, but in processing, definitely like some, because it's closer to like the start of the supply chain. So again, there's more scrutiny with these due diligence laws, what's going on also there. And your first question, sorry, remind me.

[Speaker 2]

Yes. So in turn, maybe more of implementation of. Yes.

[Speaker 1]

Switch challenges. Yes. Look, I think like for me, one interesting thing on schemes is the fact that on Annex, I think it's still Annex 3, just a second though. I need to find this because it's, yeah. So on Annex 3, it says that a company may apply to be a strategic project and it may, in its application, it can promise that it will be certified. So it's not even, I am certified, I will promise that I will be certified.

[Speaker 2]

Okay.

[Speaker 1]

And that's kind of, to me, it's like, there's going to have to be a lot of follow-up by the strategic board, by the, sorry, the raw materials board that will approve these projects on, are they actually doing it? Are they, what's happening once the project receives the money and it's, how is it going to update and how are we going to ensure like transparent information on all of this? So that to me is like a big point.

And then I think, this board will ultimately be formed of member state representatives on the commission. That's going to be a lot of like competing interests because obviously like Germany is going to want whichever projects the automakers are pushing for. France is going to want a project by a French mining company.

Sweden is going to say, no, no, no. Like we have LKAB and Boliden, like it's got to be us. So you see, like, it's going to be a lot of tension and all of this for little

money, really, because I mean, the pot of money that we're looking at is not huge.

With some gains in like timeline in Europe, maybe outside of Europe, that's less clear. Of course, I mean, the European union cannot say speed up your timelines. So yeah, I think as you said, there will be like some challenges. Let's see how it develops.

[Speaker 2]

Yes. And even as you mentioned earlier, if I understood well, like so you have, you can use certification scheme to attest that you follow the law, that you are really sustainable. And then you can, which is already not that great.

And then you can promise that you will do it, which is even a little bit worse at the end, if I get it correctly. And another question I was wondering, like, if you want to have great certification like IRMA, it takes time, it takes also resources, I guess, for companies. So I was wondering if it's like the complexities of the requirements could be an issue for smaller operators or new entrants for achieving such compliance.

[Speaker 1]

Yeah. So actually, so the first thing that IRMA always does, or always has available, and that's like anonymous, that can be anonymously done is the self-assessment exercise. So that can already give companies an idea of actually, if I want to do the IRMA audit, this is where I stand, this is where I need to improve, this I have no information on.

IRMA does provide some support to smaller companies. It's actually the x that you reach out to originally, Anne-Claire, who is responsible of this. She's on maternity leave as of yet tomorrow.

So I'm not too familiar with how this works, but indeed there is support that the staff can give to smaller companies to actually help them go through this process.

[Speaker 2]

Okay. I understand. Thank you very much.

And maybe my last question will be about, like, if I understand the resource zones or area that are like, for example, Natura 2000 zone or very specific areas. And for those one, I was wondering if you feel that it would have been great in the CRMA to develop maybe more measures related about that. It can be about certification schemes.

It can be in general.

[Speaker 1]

Yeah. I mean, I think that was a big debate, right? What is a company going to be authorized to mine around Natura 2000 site or not?

To be honest, that's not something that's still completely clear to me. I think it will depend really case by case. But we really have a responsibility to be mindful about our impacts and about the wider biodiversity impacts on like land use, et cetera, that we have as a society.

And again, that's where like laws with like high ambition or standards with like, you know, high or detailed content really come in and make the difference.

[Speaker 2]

Okay. I understand. Yes. I mean, maybe like, are there any other like insight or consideration that you think I should take like into account and that we didn't discuss during this interview or some points that you want to mention and that are useful?

[Speaker 1]

I mean, this is off the record. Yeah. You are recording me. No, no, no. I know. But don't quote me.

[Speaker 2]

Yeah. No, no. I don't worry. And it's anonymous.

[Speaker 1]

- Confidential\*

[Speaker 2]

Okay.

[Speaker 1]

You see, they were doing lobbying saying, well, we don't want this in because then you won't have any of our projects. Why? Because they are certified by industry only. So the certification, what I'm trying to tell you and to leave you here with is that this is a very sensitive topic overall. This letter is not available. Everyone's tried. Journalists have tried. But I'm just telling you this to put this a little bit in context. You know, there is a need to source raw materials for Europe and for the globe. You know, how can we ensure that we do it well, especially in places where the law is not so strong?

[Speaker 2]

Okay.

[Speaker 1]

And we do it to a high standard in a way that is fair and just, not just for the company, but also for other stakeholders.

[Speaker 2]

Okay. I understand. It's really interesting. Yes. That aspect of lobbying, it was totally new for me before starting this thesis to be honest. And yeah. And maybe who else would you recommend I speak with to gain maybe further insight for this CMA or even for certification scheme in general, if you have someone in mind.

[Speaker 1]

You should speak to, I'm going to put it, I don't have his email anymore since I changed jobs, but you can definitely find it online. Alejandro Gonzalez at SOMO. SOMO is a Dutch based NGO. He has a lot of experience on certification schemes and was also working on this. Do you have other, like what kind of stakeholders have you spoken to so far? Do you need more industry or do you need more NGO?

[Speaker 2]

We can be, if you have someone from industry, it would be great. Or like someone that have interesting perspective. So I retried to a lot of different people. So I talked with an Environmental NGO, two EU institutions. And it's great to see that the perspective are so different when you have different stakeholder. I spoke, for example, with a Company that promotes the metals and minerals mining industry & EU Institution, which has kind of different perspective than NGOs in general, I would say. So it was just, if you have someone in mind that you think that could really be useful, it will be nice. So like Alejandro Gonzalez.

[Speaker 1]

Yeah, so Elie de Baan, again, I'm sorry, I don't have his email anymore, because since I left jobs, I lost many emails. I'm trying to think. Yeah, I think these two people would be good.

[Speaker 2]



Yeah. So thank you very much, P17, for your time and also for your help. I really liked the technical insight and it was super useful for me. So thank you very much. And I wish you also a lot of success for your new position.

[Speaker 1]

Thank you so much. And best of luck with the end of your master's. It's a master's or bachelor?

[Speaker 2]

Master's. Master's.

[Speaker 1]

Do you know what you want to do after?

[Speaker 2]

Not yet. Not yet.

[Speaker 1]

You want to be in Brussels?

[Speaker 2]

I'm open to everything. Yeah, but that's super interesting. Even that subject, for example, is totally new for me. And yeah, that's super interesting, to be honest.

[Speaker 1]

Yeah, I know. That's great. Well, best of luck and keep in touch.

[Speaker 2]

Yes, thank you very much. See you, P17.

## Interview with P18

[Speaker 2]= Gauthier

[Speaker 1]= P18

[Speaker 2]

Gauthier, j'ai 22 ans et je suis un étudiant en master en Belgique et pour ma thèse de fin d'études, j'ai décidé de me focaliser sur l'analyse de la stratégie de l'Union Européenne sur les matériaux critiques et plus précisément, comme défini dans le CRM Act, avec un focus plus sur tout ce qui est environnemental

et social. Et donc, j'essaye vraiment d'interviewer différents experts dans ce domaine et ici, je trouvais très intéressant le fait que vous gérez un très grand projet, au niveau du lithium et justement, c'est vraiment lié avec ma question de recherche, on va dire. Et donc, c'est pour ça que j'ai voulu aussi vous interviewer à ce niveau-là et je peux aussi vous assurer que tout ce qui sera dit ici dans le contexte de cette interview sera confidentiel et aussi anonyme.

Est-ce que je pourrais peut-être juste enregistrer la voix, comme ça, je peux vraiment qu'on se rentre sur la conversation et ça m'évite de prendre des notes ?

[Speaker 1]

Aucun problème.

[Speaker 2]

Merci beaucoup. Donc, est-ce que vous pourriez peut-être vous introduire et m'expliquer aussi votre lien avec tout ce qui est matériaux critiques ?

[Speaker 1]

Je suis P18, je suis maintenant CEO d'une Entreprise de Développement de projet de Lithium, une entreprise qui est cotisée sur la Bourse de Londres, qui a 15 ans d'expérience dans la recherche et l'opportunité de développement d'un minéraux un peu partout dans le monde, mais qui a, depuis 2017, a concentré presque tous ses efforts sur le développement d'un projet au nord-est du Portugal, qui est le plus x projet d'exploitation de lithium d'Europe.

Il y a déjà beaucoup d'années que l'entreprise fait des efforts de développement de la ressource. Là-bas, la ressource est prouvée à maintenant 28 millions de tonnes et avec une bonne concentration de lithium, donc c'est le genre de ressource qu'on pourrait retrouver dans notre position en Australie surtout, mais qui ici est en plein, en Europe, donc il revient, j'espère, à que l'Europe accélère toute sa stratégie de développement de la filière lithium, batteries, voitures électriques, etc., encore un temps de ne pas décélérer sa volonté de décarbonisation de la mobilité. Donc le projet, c'est 100% lithium, le focus, mais il produit, ou il produira aussi, en fait il produit déjà un peu du quartz et du feldspar, le feldspar est aussi une critical raw material, sur le CRMA, donc c'est un bonus, disons.

[Speaker 2]

Parfait, merci beaucoup pour cette introduction et je me demandais, durant toutes ces années, quels ont été les challenges principaux et peut-être aussi

les risques que vous avez rencontrés durant, on va dire, le développement de ce projet ?

[Speaker 1]

Alors Gauthier, je vais te dire pas mal de choses qui sont plutôt de mémoire de l'entreprise que de moi-même. Moi, j'ai rejoint cette entreprise en septembre, c'est mon premier défi sur le secteur minier, par contre, j'ai déjà géré plusieurs entreprises industrielles au Portugal et surtout sur le côté transition énergétique, donc je suis plutôt spécialiste en gestion d'entreprises au Portugal et en transition énergétique et un peu moins en projet minier, et ce que j'ai appris de cette entreprise de développement de projet de lithium je l'ai appris dans ces huit premiers mois.

Ce que j'ai vu et ce que je vois dans ce projet, il y a quelques éléments qui sont communs au développement industriel au Portugal et partout un peu en Europe, et il y a après deux trois choses qui sont un peu plus particulières du secteur minier. Donc pour tout développement industriel en Europe, il y a un défi de licence. C'est un premier défi qui porte toute la bureaucratie qui s'est gérée pour bien essayer de bien faire les projets avec le plus grand respect pour les compromis environnementaux, pour les opérations locales, etc.

Donc pour des bonnes raisons, l'Europe a créé un système de régulation et de contrôle qui est plutôt dur à travailler, et qui signifie que les projets prennent beaucoup de temps à se développer. Et ça, c'est sur le secteur minier, mais aussi sur les secteurs des combustibles verts, sur les secteurs de la mobilité électrique, c'est un autre défi. L'autre défi est un défi de secteur.

Le secteur minier demande beaucoup de temps de travaux avant qu'on ait le premier euro de recettes, de revenus. Donc c'est beaucoup d'années et beaucoup de millions d'euros d'investissement pour même prouver la ressource, prouver sa viabilité financière, et après commencer à faire le détail d'ingénierie pour exploiter la ressource. Tout ce processus prend beaucoup d'années, prend beaucoup d'investissement, demande de l'effort de beaucoup de personnes, et demande le maintien d'une motivation et d'une volonté de faire bien les choses, ce qui est dur à faire pendant beaucoup d'années.

Le troisième défi, c'est un défi de désinformation. La désinformation vient du déconnu, et le secteur minier est devenu peu connu, mal connu par les Européens. Il est facile de construire une histoire de peur, il est facile de construire une histoire de mauvais exemples, il est facile, même très très hypocrite, mais il est facile de dire qu'un projet minier en Europe ne se fait pas

parce que sinon il serait comme les projets du Congo, ou les projets du Brésil se détruisent, etc.

Il est facile de mettre peur aux personnes qui ne comprennent pas évidemment ce qui pourra se passer dans la région et qui ambitionnent quelque chose de différent pour leur région. C'est un terrain de désinformation plutôt fertile. Le troisième défi serait l'exercice de générer une proximité avec les populations locales pour bien se faire comprendre, pour bien construire une relation de confiance minimale pour que les personnes n'entrent pas en panique et ne soient pas des cibles faciles pour ces désinformations.

[Speaker 2]

Merci beaucoup pour l'explication de ces différents challenges et je vais vous poser par la suite des questions liées à ceux-ci. Mais juste avant ça, je me demandais aussi comment vous évaluez la stratégie de l'Union Européenne, par exemple le Critical Raw Materials Act, et quel impact ça pourrait avoir sur des projets comme le vôtre ?

[Speaker 1]

Je crois que ce qu'il y a à dire, c'est surtout, finalement, pour ceux qui sont sur le secteur et ils le comprennent un peu plus, c'est qu'il était temps que l'Europe trouve une façon de bien construire des lignes d'orientation pour le développement d'un secteur qui est essentiel. Et pourquoi ça ? Parce que la Chine a bien fait un très bon travail de préparation anticipée, de construction de lignes d'orientation, et ils ont 10 ans d'avance.

La Chine a 10 ans d'avance, les États-Unis sont normalement rapides à reprendre le retard. Avec le IRA, ils ont trouvé une solution d'accélération qui a des effets sur ce secteur et beaucoup d'autres, et donc l'Europe avait besoin d'une solution de coordination le plus rapide possible. Est-ce que la solution est parfaite ?

Il n'y a pas de solution parfaite. Si on voit le détail du IRA, il y a aussi beaucoup de choses à dire qui feraient que peut-être que ce ne soit pas un mécanisme parfait. Mais il est beaucoup plus important de se mettre en action, en mode action et de faire, que de trouver la solution parfaite.

Donc finalement, bienvenue au CRMA et bienvenue à toutes les actions qui doivent être mises en place après que le CRMA entre en action maintenant. Je crois que c'est pour le 23 mai. Quel impact le CRMA aura sur notre projet en particulier ?

Je ne suis pas sûr. Je t'explique pourquoi. Je crois que le CRMA va prendre un peu de temps à être implémenté, à avoir des actions concrètes pour l'exécution de la stratégie, ce qui est normal.

Et notre projet a commencé même avant 2017. Et donc la plupart des choses qui ont été difficiles à faire et qui ont pris très longtemps, ce sont des choses associées au licence. Le CRMA, un des premiers défis, sera d'accélérer le licenciement.

La plupart du processus des licences, on l'a de notre côté en ce moment. Donc ça ne va pas forcément nous aider, mais ça va aider ceux qui viennent après. L'autre élément de développement que le CRMA aura, je crois, est un élément de support au financement.

Donc les instruments de support au financement à l'investissement qui sont normalement à la disposition des autres industries, comme la Banque Européenne d'Investissement, le BRD, le Fonds Européen d'Investissement qui investit sur les private equity qui après investit sur le secteur. Tout ça, ça va bouger un peu plus et un peu plus rapidement dans la direction du support à ce secteur. Est-ce que ça va venir à temps de nous aider à nous?

On verra bien. Peut-être que ça aidera. Et donc, bienvenue de toute façon, parce que pour nous, c'est aussi important que le secteur se développe même à côté de nous.

Donc ce n'est pas un secteur où je vois que je vais être le seul à faire des choses, pas du tout, bien au contraire. Le troisième élément sur lequel le CRMA pourra aider, pour ma vision, est un élément de simplification des procédés de développement de projets après l'obtention des licences, donc en construction, en opération, etc. J'espère que ça nous aidera, surtout que les institutions qui sont responsables pour le contrôle de projets comme le nôtre se sentent à l'aise pour bien faire leur travail, mais faire un travail aussi focus sur essayer de supporter les projets au lieu d'être un élément de génération de complications, que ce soit un élément de génération de solutions de bienfaire.

Donc, on veut que les institutions de contrôle, de régulation, etc. soient là pour nous contrôler, assurer à tout le monde que les choses sont bien faites, et c'est pour faire. Donc, tu peux aussi, un régulateur peut être un régulateur très fier de ce qu'il fait, en assurant que rien n'est fait ou en assurant que les choses sont bien faites. Donc, j'espère qu'avec le CRMA, ce sera surtout le deuxième cas de plus en plus. Et le dernier élément est associé à la déconstruction de toute cette désinformation.

Le monde sous la désinformation est un élément absolument critique pour presque tout. Ce n'est pas pour le secteur milier seulement, c'est pour tout. Dès le début des éléments fondateurs de la démocratie jusqu'à la presse libre, etc.

Évidemment, plus il y en a de personnes, d'entités alignées au combat de cette désinformation, plus on a l'opportunité d'apporter une information plus fiable, plus fiable et qui génère moins de stress, moins de critiques peu nécessaires aux personnes. Et ceci est important parce que si on a une bonne plateforme de communication avec les personnes, si elles n'ont pas peur de ce qu'on va faire, on peut bien travailler avec elles pour générer les meilleurs résultats pour les populations locales, pour les populations nationales et pour les populations européennes.

[Speaker 2]

D'accord, je comprends bien. En parlant justement de cette désinformation, j'ai vu que le projet de votre entreprise avait aussi rencontré quelques challenges par exemple avec tout ce qui est communauté. Je pense que ça se disait x. Et je me demandais peut-être quels sont vos best practices pour gérer ce type de conflits assez rapidement.

[Speaker 1]

Oui, bonne question. Alors la réponse est un peu plus compliquée. Première chose, il faut que je sorte. Il y aura peut-être des secondes où tu m'entends, d'accord ?

[Speaker 2]

Ok.

[Speaker 1]

Donc première chose, il y a évidemment un défi à travailler. C'est un défi de perception médiatique, c'est un défi de rééducation et c'est un défi aussi de connexion avec la population locale. Si tu veux, le détail de notre cas...

[Speaker 2]

Là, je ne vous entends plus. Là, je vous entends.

[Speaker 1]

Tu es revenu ?

[Speaker 2]

Oui, parfait.

[Speaker 1]

Donc pour comprendre le défi, je crois qu'il faut le comprendre sur ces trois domaines. Donc perception publique, réputation et liens locaux. Et pour bien comprendre la façon d'attaquer les trois défis, il faut comprendre le point de départ.

Et le point de départ, dans notre cas, c'est cinq personnes. C'est une dame, son mari, sa cousine, une amie locale. C'est cinq personnes.

Et ces cinq personnes ont des bonnes raisons pour être contre le projet. Ce n'est pas des raisons nobles, ce n'est pas des raisons éthiquement responsables, mais ils ont des bonnes raisons pour être contre le projet. Et pourquoi je t'explique ça ?

Pour t'expliquer que seulement cinq personnes peuvent faire une attaque qui, après plusieurs années, est vraiment problématique et peut avoir un impact énorme sur un projet qui, de façon directe et indirecte, va générer entre 1000 et 2000 emplois locaux. Et qui va gérer la matière première pour entre 500 000 et 1 million de véhicules par an. Donc la dimension d'impact est absurde face au point de départ.

Et c'est important de comprendre ça, non pas pour dire que ce n'est pas un problème, et pour essayer de dire que non, ces cinq personnes, je vais l'ignorer, mais pour bien comprendre comment essayer de résoudre le problème. Alors, déjà, la première chose, c'est d'être humble. Humble, honnête.

Et de bien faire les choses avec la volonté de générer des meilleurs résultats. La chance qu'on a dans notre projet, et il y aura d'autres projets qui seront comme ça, c'est que le projet a un intérêt économique, financier, fort. Pourquoi est-ce que c'est une chance ?

Parce que ça te donne les moyens, et bien faire les choses. Si j'avais un projet qui était financièrement un peu plus compliqué, je n'aurais pas les ressources pour assurer que je vais bien faire les choses et que les royalties locaux vont être ce qu'ils vont être. Dans notre projet, seuls les royalties vont faire doubler, attribuer le budget annuel de la mairie locale, par exemple.

Seule la fondation qu'on va faire va avoir 500 000 euros pour services sociaux locaux. 500 000 euros, aujourd'hui, sont très difficiles à gaspiller, parce que c'est une région avec peu de population, avec peu de développement, donc

c'est très grand pour les locales. C'est tout ça, et même d'autres choses qu'on va faire.

C'est très intéressant, pas promesse, mais il faut le faire. Et, de toute façon, il faut des communautés plus publiques. Je peux te dire qu'il y a deux mois, j'ai été avec un ex-père local, et il ne savait pas qu'il y avait des royalties.

Il ne savait même pas qu'il y avait des royalties. Si le numéro était x ou y, c'est qu'il ne savait pas qu'il y avait des royalties. Donc, simplement dire qu'il faut vraiment être...et bien expliquer pourquoi ce projet est important pour une région, pourquoi le projet va bien aider la région, etc. Donc, aucune façon de le faire à distance. Deuxième chose, aucune façon de faire bien les choses, si on les fait contre les autres.

On a dans notre équipe, de plus en plus, des personnes de la population locale, des personnes de x, par exemple, de x, de x, qui est en proximité de x. Ce sont des personnes qui sont de ces familles, ce sont des personnes qui sont de ces locaux, et qui vont aider déjà aujourd'hui le projet, pour qu'il soit bon pour nos actionnaires, mais aussi pour eux et pour la région. Le frère de la dame, la première dame dont je t'ai parlé, des 5 problématiques, des 5 castillateurs, le frère travaille avec nous depuis 4 ans. Et c'est une personne que j'adore. Son père nous a vendus nos terrains. T'imagines ?

Nos problèmes de départ. Évidemment, la presse a oublié de dire ça. Évidemment, la presse a aimé l'idée de construire une histoire de David contre Goliath, et de faire en sorte que ce soit une histoire de la population contre une entreprise grande, qui est lointaine et qui ne peut pas accepter.

Et c'est une histoire facile pour la presse, et c'est une histoire facile à construire pour 50 personnes. La troisième personne dont je t'ai parlé, c'est une dame qui habite à Londres. Elle est partie du village depuis maintenant 15 ans, donc elle a mal au cœur d'être partie du village et d'avoir laissé ses parents.

Et donc une façon qu'elle a trouvée de se faire importante et de montrer qu'elle était quelque chose pour la région, c'est de mettre en contact ces personnes avec des journalistes internationaux à chaque jour. On a un journaliste international, presque à chaque jour. C'est facile à construire le message des mauvais et de David contre Goliath.

La façon de contrarier ça, c'est d'être... travailler avec ces personnes. Et on a bien changé la façon de faire ça pendant les six derniers mois, et je trouve qu'on sent déjà beaucoup de différence.



On sent déjà que la plupart des personnes commencent à voir le couple radicaux comme un couple de radicaux, parce que c'est ce qu'ils sont. Et qu'elles commencent à voir qu'il y a des histoires différentes, et qu'il y a des choses à construire, et qu'il y a des choses bonnes à faire. Mais il faut du temps. Il faut beaucoup de persistance et beaucoup de temps pour essayer de faire en sorte que ça fonctionne.

[Speaker 2]

C'est super intéressant. Là, je vois que la réunion, malheureusement, touche déjà à sa fin. Alors, je me demandais peut-être, juste très très rapidement, s'il y avait une chose que vous n'avez pas mentionnée, que vous aimeriez mentionner et qui pourrait être utile pour le projet ?

[Speaker 1]

Ok, un message que je veux laisser, et je crois que... Comment on dit ça en français ? Je vais le dire en anglais.

[Speaker 2]

Ok, bien sûr.

[Speaker 1]

The days in which we live are days where it is much easier to say bad thing about things than to do things. And the problem is that the future is on the hands of those who do good things. Et je crois qu'ici, il y a beaucoup de ça. En fin de journée, personne n'aime l'idée de départ d'avoir une mine devant eux. Donc c'est facile de construire un peu.

Mais de l'autre côté, première chose, construire une mine bien construite, un projet bien construit, peut être très bien pour le développement de la région. Je vous donne un détail d'information spécifique du Portugal, mais que vous pourrez trouver dans notre livre. Le Portugal a plusieurs autres mines.

Il y a une mine en particulier depuis à Neves-Corvo, à Castro Verde. C'est une mine d'une entreprise appelée Somincor. Castro Verde, comme vous le dites, c'est une mairie en intérieur du pays.

Une zone très peu développée, très peu problématique, très dure. Plein d'immigration dans les dernières deux générations. Donc il y avait tout pour que Castro Verde soit un village problématique. Castro Verde est aujourd'hui, à cause de la mine, la mairie, avec le salaire moyen plus haut au Portugal. Ils ont un salaire moyen plus haut que Lisbonne. Imaginez l'impact de bien faire les choses.

Ce qu'on va faire, c'est de faire quelque chose de très semblable, mais qui ne fait pas de cuivre, c'est du lithium. Et en faisant du lithium, accélère la construction d'une Europe plus forte, plus résiliente, plus capable d'accélérer ses bons principes et de construire une économie, une société en bas carbone et avec une mobilité soutenable. Donc faire bien et bien faire, c'est dur.

Et quand ce sera fait, ce sera absolument fabuleux. Donc c'est sûr qu'on est concentrés. On va essayer de le faire avec le plus possible de personnes qui nous aident et qui comprennent ce qu'on fait. Et c'est ce qui continuera d'avoir 5 personnes et quelques autres qui peuvent influencer. Qui n'aiment pas le projet, c'est la vie. On ne peut pas...We cannot please everyone.

[Speaker 2]

1. Merci beaucoup P18 en tout cas pour votre temps et aussi tous ces insights. C'était super intéressant pour moi. Merci encore et je vous souhaite plein de succès pour la continuation.

[Speaker 1]

Merci, merci pour l'intérêt sur le projet et le secteur. À bientôt.

[Speaker 2]

À bientôt. Au revoir.

[Speaker 1]

Au revoir.

## Interview with P19

[Speaker 1]=P19

[Speaker 2]= Gauthier

[Speaker 2]

No worries, no worries. So, before asking you to introduce yourself, I can explain a bit more about the context of this meeting. I'm a student from Belgium, in my final year of a master's program, and I decided to focus my thesis on, let's say, the analysis of the European Strategy for Critical Raw Materials as defined in the CRM Act, with a focus on its environmental and social impacts.

I'm really trying to interview different experts and gather various perspectives on this topic. I can also assure you that everything discussed during the meeting will be confidential and anonymous, even though that's not entirely necessary. Would it be okay if I record our conversation? Like that I can re listen it later on?

[Speaker 1]

Sure, no problem.

[Speaker 2]

Great. So maybe... could you briefly introduce yourself? Also, do you have any knowledge about the CRM Act?

[Speaker 1]

My name is P19, and I'm a professor of Ecology at an University in Spain. I don't know much about European legislation, but what I do know is that we're researching mining here, which is completely tied to the European Union, saying that the EU must be, or increase, achieve its independence when it comes to key rural materials for electrification and energy transition.

[Speaker 2]

Okay, perfect. So, I was wondering about your perspective on the European Union's push for mining projects or strategic project development in Spain and across Europe. Do you think these projects are beneficial? What are your thoughts on this?

[Speaker 1]

Overall, I think the first thing is that renewable energies aren't replacing fossil fuels; they're just increasing the energy offer. They're not mitigating climate change, because we're consuming more and more energy, and also, electrification has a very clear technological barrier, because only 20% of the primary energy we use is in the form of electricity. The other 80% comes from burning fossil fuels.

So, I think that's crucial because people think that with electrification, we can manage the system, but no, there are technological bottlenecks that limit the electrification of the system. I also think it's crucial to understand that renewable energies aren't as renewable as people think because they require fossil fuels to extract the metals and all the raw materials. They need fossil fuels to build those facilities and to maintain them.

So, they depend on fossil fuels. The European Union isn't doing enough; they're not looking in the right direction. The right direction is that we're running out of cheap oil, because we've already surpassed the peak of oil. We've extracted more than what is healthy, so we're running out of oil, and the European Union isn't doing anything to reduce energy use or to decrease energy consumption.

So, I think that's the problem because efficiency isn't enough. Efficiency isn't enough, because, for example, we have the agricultural sector here oriented toward exports, which consumes a lot of energy to transport things from one place to another. I think that's very important, and also for mining, because we need fossil fuels for mining, and I don't think they're aware, or maybe they know, but they're not doing enough, because they can't stop the growth of the economic system. That's the nature of capitalism.

[Speaker 2]

También, no te lo pregunté, pero si quieres, también puedo intentar hacer la entrevista en español, porque sé un poco de eso, así que es como prefieras. Si quieres, podemos tratar de hacerlo en español, si es más fácil para vosotros.

[Speaker 1]

Como quieras, si quieres español, si no inglés, como tú prefieras.

[Speaker 2]

Ok, podemos tratar en español. Así, tuve una pregunta. ¿Cuáles son los principales desafíos y riesgos asociados con los proyectos mineros? Y, en su opinión, ¿los beneficios superan estas desventajas?

[Speaker 1]

Claro, eso, si se lo preguntas a alguien en Francia, en París, puede contestar algo muy diferente a si se lo preguntas a alguien en Andalucía, que es donde yo estoy. Andalucía se está configurando como un territorio de sacrificio a nivel europeo. Andalucía es la periferia del Estado español, la región más pobre, y el Estado español es la periferia del corazón de la Unión Europea, el corazón socioeconómico, que digamos que principalmente es ahora Francia y Alemania.

Entonces, en Andalucía se están instalando proyectos muy impactantes de agricultura superintensiva, orientada a la exportación. Se están instalando megaparques fotovoltaicos, también muy impactantes, y se están instalando muchos proyectos mineros. Andalucía tiene una historia de contaminación de

muchísimos suelos y ríos por la minería desde 1850, desde que los ingleses empezaron en Río Tinto a explotar las minas.

En Andalucía hubo el primer movimiento ecologista de España relacionado con la minería. Ahí se llama la Liga Anti-Humos, cuando los agricultores y los mineros de Río Tinto empezaron a manifestarse porque quemaban el mineral en la mina y provocaba mucha contaminación y enfermedades y pérdidas en los cultivos. Desde entonces, al principio, hay un profesor aquí en la Universidad de Sevilla que ha investigado todo esto desde un punto de vista de la antropología y él describe muy bien cómo al principio la gente protestaba porque se contaminaba el río donde pescaba o donde bebía sus animales y protestaron, los pescadores protestaron porque contaminaban las aguas del estuario, etc.

Ahora la gente, como ha nacido ya con las minas, lo ve como normal. Ya no hay esa protesta porque ya han nacido con la mina junto a su casa. Eso por un lado, pero al mismo tiempo que hay minas históricas que siguen funcionando y otras que se están abriendo en sitios históricos, también se están empezando a contaminar nuevos sitios que no se habían contaminado antes.

Entonces los impactos han sido históricamente muy fuertes tanto a nivel de contaminación de suelos y de aguas y también atmosférica por partículas que se ha reflejado en cáncer. La zona de Huelva y Cádiz es una de las zonas con más cáncer de España. Por ejemplo, cáncer de Vejiga.

El cáncer de Vejiga está directamente relacionado con la acumulación de metales. Entonces sí, hay impactos históricos y hay nuevos proyectos mineros que conllevan impactos que están pasando ahora nuevos o van a pasar en un futuro. Y todos están relacionados con contaminación de suelos, de aguas y bioacumulación en la fauna y también en el ser humano.

[Speaker 2]

Eso es muy interesante. Y pregúntame con las nuevas técnicas para las minas cuál es su opinión sobre las prácticas mineras verdes o sostenibles y ¿cree que están mitigando suficientemente los impactos ambientales?

[Speaker 1]

No existe la minería circular y no existe la minería verde ni existe la minería sostenible. Eso es mentira. Eso es greenwashing. Un ejemplo. Aquí tenemos dos minas. Mina Cobre Las Cruces y mina de Aznalcoba.

Las dos hablan de minería verde. Las dos han funcionado a cielo abierto como se hacía en el siglo XIX y en el siglo XX. Ahora van a funcionar subterráneas.

De manera que no necesitan una corta minera para echar los residuos sino que lo echan en las galerías que abren. Pero ¿qué pasa? Que al mismo tiempo esas minas tienen obligatoriamente, no pueden hacer otra cosa, tienen que vertir aguas contaminadas con metales en este caso al estuario del río Guadalquivir.

Esas concentraciones de metales en esas aguas son bajas pero el volumen de agua que vierten es muy grande. De manera que al final la cantidad de metales y metaloides que llegan al estuario son muy grandes y se acumulan en los sedimentos y se acumulan en la fauna y en la vegetación. Eso está comprobado científicamente y publicado en revistas científicas. Por lo tanto la minería verde es mentira. Científicamente probado.

[Speaker 2]

Es muy interesante porque cuando hablé con las empresas que hacen eso me dicen la promoción de estas nuevas metodologías de trabajo. Así es muy bueno de tener este perspectiva.

[Speaker 1]

Los científicos me los puedes pedir por correo electrónico y te envío los artículos científicos.

[Speaker 2]

Muchas gracias señor. ¿Cree usted que la minería dentro de la Unión Europea a pesar de los posibles daños ambientales y sociales tiene menores impactos en comparación de las actividades similares en continentes como África o Latinoamérica?

[Speaker 1]

En 1998 hubo un accidente minero en Sevilla donde se rompió una balsa minera y contaminó el río Guadiamar el parque nacional de Doñana y el río Guadalquivir. Como decía antes, desde el siglo XIX compañías fundamentalmente inglesas esa compañía de ese accidente minero que contaminó era Sueca una compañía sueca en Sevilla, Boliden. Desde el siglo XIX los ingleses, las multinacionales inglesas llevan contaminando muchísimos suelos y muchísimas aguas en Andalucía, en Europa.

Ahora la mina que provocó el accidente de 1998 se va a abrir de nuevo con una empresa mexicana una empresa mexicana que ya ha contaminado gravemente el río Sonora en México. ¿Qué pasa? Que si se hace minería en Andalucía

contamina menos que si se hace en Ecuador o en Chile o posiblemente porque aquí la legislación ambiental es más exigente hay más movimientos...fundamentalmente por eso porque la legislación es más exigente, pero muchas veces no cumplen la legislación. De todas las maneras yo me planteo que no es cuestión de más o menos contaminación. La cuestión es que nosotros queremos tener trabajo y salud y para eso necesitamos medio ambiente de calidad.

No queremos ser el patio trasero de nadie, donde se nos echa la mierda. Entonces, claro, no es cuestión de dónde se produce más o menos impacto. La cuestión es que tenemos que reciclar metales. ¿Qué? ¿Que no es rentable? ¡Ah! ¿Qué problema? No, no es rentable. Bueno, hay que hacerlo.

Aquí, people before profits. Entonces, hay que reciclar metales, hay que disminuir el uso de metales, hay que decrecer degrowth, y entonces no hace falta contaminar.

[Speaker 2]

Sí, es muy interesante. ¿Y qué piensas...Sobre los estudios de impacto ambiental que estas empresas hacen antes de empezar a producir, ¿existen áreas donde estos estudios podrían mejorarse?

[Speaker 1]

Los estudios de impacto ambiental, como tú sabes, son aprobados por las administraciones públicas. La Junta de Andalucía, que es el gobierno de nuestra región, competente en industria, en minería, tiene una política de alfombra roja a la minería. Hay muchos estudios de impacto ambiental de minas que son totalmente deficientes y la administración pública los aprueba sin problemas.

¿Y qué dicen? Se agarran a la política de la Unión Europea. Por ejemplo, la mina Cobre las Cruces contaminó, ya condenado en los juzgados, condenados por un juez, contaminó el acuífero, las aguas subterráneas, con arsénico. Muy tóxico. ¿Qué ocurre ahora con la mina Cobre las Cruces? ¿Qué hace la administración pública?

Según la directiva de aguas de la Unión Europea, tú tienes que controlar la contaminación, pero puedes declarar un proyecto de interés general para no tener que controlar tanto la contaminación. ¿Qué han hecho? Han declarado el acuífero, el proyecto de la mina, de interés general. Por lo tanto, ya no se tienen que preocupar tanto de la contaminación, por la directiva de aguas.

[Speaker 2]

¿Y no dicen algo cambiante sobre eso? Porque es de público general, así no tienen que hacer nada.

[Speaker 1]

No es que no tengan que hacer nada, tienen que hacer menos.

[Speaker 2]

Menos, ok. ¿Y qué podrían hacer para mejorar la gobernanza sobre este tema? Porque aquí hablaba de la administración, así cómo podrían mejorarse.

[Speaker 1]

Los estudios de impacto ambiental pueden mejorarse, por ejemplo, en la depuración, porque la depuración de los efluentes mineros se da, por ejemplo, filtrando con compuestos cálcicos, se da con lagunas, pero se podría mejorar la depuración con humedales, por ejemplo. Con humedales también, y no se hace. Humedales verdes, filtros verdes.

También se podrían hacer medidas compensatorias. En los estudios de impacto ambiental van medidas correctoras, pero también van, cuando no puedes evitar el impacto, medidas compensatorias. Aquí no ponen medidas compensatorias.

No hay medidas compensatorias. De manera que impactan y, además, no lo compensan. Y la gobernanza, fundamentalmente, desde mi punto de vista, por mi experiencia, depende de que haya movimientos sociales que protegen.

Yo no confío en la gobernanza de las administraciones públicas, porque mejorar la gobernanza de las administraciones públicas, cuando la Unión Europea dice que hay que sacar minerales sí o sí, y las multinacionales tienen mucho poder, por ejemplo, BlackRock, un fondo de inversión, el mayor fondo de inversión en España, claro, BlackRock manda mucho a los políticos en España. Entonces, ¿cómo vamos a mejorar la gobernanza? Pues con movimientos sociales, incluyendo movimientos ecologistas, que son los únicos, actualmente, que están intentando poner algo de razón y intentando poner el medioambiente como algo esencial para nuestra salud.

Si no existiesen esos movimientos sociales, la minería estaría ya avanzando a una velocidad muy grande y, además, con muchos impactos. Gracias a los movimientos sociales, pues disminuye algo los impactos y avanza más lentamente. Entonces, para mí, la clave en la gobernanza son los movimientos sociales.



[Speaker 2]

Movimiento social. Es muy interesante y tal vez más sobre el aspecto social de eso. ¿Cree que las empresas mineras se comprometen suficientemente con las comunidades locales a través de estudios sociales y consultas? ¿Y también cree usted que los proyectos mineros realmente creen valor para las comunidades, las personas locales, tal vez, y en general?

[Speaker 1]

Los proyectos mineros en Andalucía crean pasivos ambientales que se quedan aquí para siempre. Las escombreras mineras se quedan aquí para siempre. La contaminación en los ríos se queda aquí para siempre. Además, se llevan muchísimos millones con el mineral. Muchísimos millones. ¿Y qué dejan? Crean empleo. Crean algo de empleo, pero poco. No crean mucho empleo.

Porque, además, disminuyen otros empleos. Por ejemplo, empleos relacionados con el turismo rural disminuyen. Empleos relacionados con la pesca pueden incluso impactar en ellos.

Entonces, por un lado, crean algunos empleos temporales. Por otro lado, pueden llegar a destruir empleo. ¿Y qué hacen?

Financian las camisetas de un equipo de fútbol del pueblo. Claro, ese tipo de acciones realmente es como un azucarillo. Como te doy un caramelo para que te quedes tranquilo mientras yo me llevo todos los millones y te dejo aquí los residuos de la mina para las generaciones futuras.

[Speaker 2]

Ok. Eso es muy interesante. Así hay muchos aspectos negativos para las comunidades y el ambiente en general sobre los proyectos mineros. Sí. Espera una segunda. Sí. Y si entiendo bien, hay también certificaciones que son no obligatorias, pero serían más obligatorias con la EU. ¿Y qué piensas sobre los impactos que tiene la certificación por proyectos mineros?

[Speaker 1]

Por ejemplo, ocurre que ahora va a haber un vertido de una mina al estuario del Guadalquivir y ahora va a haber dos más. Los analizan, los certifican de manera independiente. No tienen en cuenta los efectos sinérgicos, los efectos acumulativos.

Entonces todas esas certificaciones valen cuando las administraciones públicas vigilan. Pero si las administraciones públicas dicen que sí a todo lo que dice la mina, entonces, por mucha certificación que haya, no vale para

nada porque al final la mina es la que manda. Y eso es lo que está pasando aquí.

Las administraciones públicas aprueban todo lo que dice la mina. No imponen medidas compensatorias, no imponen nuevas maneras de depurar el vertido. No dicen que todos los proyectos mineros son aprobados. No hay ningún proyecto minero que no sea aprobado. Eso es muy significativo.

[Speaker 2]

Ok, entiendo. Y tal vez mi última pregunta será ¿qué medidas se pueden tomar para fortalecer el monitoreo y la aplicación del cumplimiento con las regulaciones ambientales?

[Speaker 1]

Antes de contestar a esa pregunta, quería hacer un comentario respecto a la política de la Unión Europea actualmente. La secretaria general, Von der Leyen, y Borrell, el diplomático central de la Unión Europea, dicen que hay que aumentar el gasto en armamento. Sí, los gobiernos europeos deben aumentar el gasto en armamento.

Ahí hay muchos metales también. Ellos dicen que quieren que Europa sea autónoma en los metales, pero al mismo tiempo quieren mucho armamento. Esto quiere decir que Europa nunca va a ser autónoma en los metales, porque cada vez más armas.

¿Para qué? Eso es otro debate. En concreto, con las minas, la proliferación armamentística está relacionada estrechamente con la minería.

No solo las placas solares y los cables, sino también la industria armamentística. ¿Cómo se puede mejorar el monitoreo? Por ejemplo, es muy importante muestrear en los sedimentos, porque aquí muchas veces solo muestran el agua.

No muestran los sedimentos que hay en el fondo del río. Tampoco muestran la bioacumulación en las flores y en las faunas. Eso habría que mejorarlo.

Otra cosa que hay que mejorar es en el monitoreo preguntarle a la gente qué está pasando. ¿Está sufriendo? Porque si hay gente al lado de una mina, como hay aquí, que están respirando todos los días partículas de polvo, ¿por qué no le pregunta a la gente que todos los días tiene que limpiar dentro de su casa muchísimo polvo que están respirando sus hijos cuando van al colegio?

Entonces, el tema de la minería tiene que tener en cuenta la participación ciudadana desde el inicio hasta el monitoreo. Porque al final la gente que vive

en el territorio es la que realmente sabe lo que está pasando. ¿Por qué no está viendo?

[Speaker 2]

Así sí entendí bien. Hay dos cosas. La primera es que actualmente los mineros son utilizados para otras cosas. Un poquito otras cosas que la transición energética como por los armas. Así la utilización es un poquito mala. Sobre eso es un poquito greenwashing también cuando hablan de eso. Y la segunda cosa es que deberían tener en consideración la población local desde el inicio sobre el final parte. ¿Y ahora no preguntan a la población después que el proyecto empieza?

[Speaker 1]

No, la población tiene una posibilidad durante el procedimiento de evaluación de impacto ambiental. Tiene una posibilidad para alegar y ahí fundamentalmente quienes están alegando en Andalucía son el movimiento ecologista y algunos ayuntamientos. Pero la mayoría de la gente ni lo sabe lo que está pasando hasta que no pase.

Y después durante el monitoreo no se tiene en cuenta la gente, no se pregunta nada a la gente. Durante el monitoreo se mide la calidad de las aguas, algunas veces la calidad del aire y a la gente no se pregunta nada.

[Speaker 2]

Muy interesante, muchas gracias. ¿Hay algo más que le gustaría añadir que no hayamos cubierto?

[Speaker 1]

Pues que en Andalucía vemos muy claramente que se nos quiere transformar en un sitio de vacaciones. Somos una de las zonas más impactadas de Europa por el cambio climático, por la subida del nivel del mar, por la colocación de mega parques fotovoltaicos, por la agricultura superintensiva de exportación y por la minería. De manera que hay mucha gente en Andalucía que piensa que no vamos a permitirse una colonia interior de la Unión Europea.

[Speaker 2]

Ok, entiendo. Es el mismo territorio, la Andalucía, que tiene, no dolor porque no tengo la palabra, pero que debe subir todo como el cambio climático más fuerte que otra parte de Europa, las minerías y todo sobre esta área de España.

[Speaker 1]

Claro, no es una minería sola, sino que son otros muchos procesos que hacen que Andalucía sea un territorio de sacrificio que funciona para exportar manos de obra baratas a Francia y Alemania y para exportar materias primas. Y eso nosotros no estamos dispuestos a permitirlo.

[Speaker 2]

Muchas gracias, fue muy interesante y tal vez a quién más me recomendaría hablar para obtener perspectivas adicionales sobre este tema porque creo que es muy interesante y no tuve esta perspectiva antes, por ejemplo.

[Speaker 1]

Pues podrías hablar con Félix Talego, Félix Talego es el antropólogo que te he dicho antes que es experto en conflictos mineros y podrías hablar con alguien de Greenpeace o de Ecologistas en Acción de aquí también.

[Speaker 2]

Muchas gracias señor, fue muy interesante y muchas gracias por su tiempo y por su ayuda y espero que todo estaría bien por Andalucía.

[Speaker 1]

Igualmente, que vaya muy bien el trabajo fin de máster y si alguna vez acabas trabajando en la Unión Europea, espero que tengas todo esto en cuenta.

[Speaker 2]

Sí, por supuesto. Hasta luego señor y muchas gracias. Buen día.

## Interview with P20

[Speaker 1]=P20

[Speaker 2]=Gauthier

[Speaker 2]

Great, great. And yeah, so thank you for this meeting. I think it will be really useful for me like to have a better idea about recycling and CRMA.

Maybe I can give you a little bit more context because it's been a long time we haven't seen each other. Sure. So as you already know, I'm like a student at UCL Louvain and I'm doing my thesis on the analyzing of the use strategy for

the critical raw materials as defined in the CRMA with more an aspect on like environments and maybe also like sustainability in general.

So I'm really trying to cover all the aspects with it. So I can mention it, I don't know if it will be useful, but everything will be anonymous, confidential. And so like, maybe can I just like record your voice? Like that I can re-listen it later on for me to not take note every time.

[Speaker 1]

Okay, yes, perfect.

[Speaker 2]

Perfect. So, so yeah, maybe could you, even if I already know a little bit about that, like could you briefly introduce yourself and explain like your involvement with recycling, with critical raw materials in general?

[Speaker 1]

Sure. So, well, I'm P20, I work for a Recycling group since two years ago. My background is in metallurgical engineering and I also have a master's of science in sustainability natural resources.

Nowadays, I work for the Recycling group as a technical commercial engineer, which means evaluating the technical and economical feasibility of metal recycling. I also source waste and my products from different industries in Europe and outside Europe in order to feed our recycling plant, which we have four. The main one is in, it's called x in Engis, close to Liege.

The second one is called HARZ OXID in Germany, in Goslar, and also x France in Dunkirk, which has not started yet the operation, but we hope to start this year after the permitting is okay. But we are in the recruitment phase of technicians and operators for the plant. And finally, our recycling group in Thailand focus on the recycling of lead and antimony alloys and tin alloys. And in our recycling company, we do different type of recycling of non-ferrous metals, namely zinc, cobalt, lithium, rare earths, copper, tin, et cetera. So that's the main activity of the group. And as I said, I am in charge of sourcing materials to evaluate the chemical process that we can apply for, to oversee some lab tests from the R&D team to know the results, and then to go to the numbers and also involved in the contract of buying and selling materials.

And on the output side, I'm in charge also of offering our products to different industries or outlets. And on the other hand, on the other way as well, like we have a process that we want to do, but we don't know what the market needs.

So I go to market and then I get some material specifications in terms of concentration and purity.

And with that framework in mind, I go back to the lab with the team and then we can do or we cannot do this process to get these products. So basically that's my job. And well, if you need more information on the company, you can check on the website, which is updated recently. So we had like lots of fresh content on different topics and activities we do.

[Speaker 2]

Perfect. It's super interesting. And I will also have some questions, maybe more related with economics and technical a little bit later on. But first, I was really wondering, in your opinion, to what extent does the actual outcomes of the CRMA align with its intended strategic goal? And are you satisfied with it? And can you maybe comment also on the feasibility of these objectives?

[Speaker 1]

Sorry, you mean the feasibility of the objectives of the act, right?

[Speaker 2]

Of the what?

[Speaker 1]

You mean the feasibility of the objectives of the Critical Raw Materials Act?

[Speaker 2]

Yes. Like, for example, for recycling, 25 percent.

[Speaker 1]

Yeah, I mean, officially we are not, we have not made any stand on the act, like in terms of course, we kind of celebrate it because it's like another framework for advancing into in-house and domestic recycling capabilities, which is an activity that we have been doing since the 60s, right? So we are a metal recycling company, right? So we have our extensive background on different metals, and we are happy that we have more clear targets at EU level in terms of target and percentage, basically.

But in concrete terms, we have not read the act carefully. I have read some specific chapters related to my activities on rare earths. And I'm happy that there are like some requirements on the labeling the products, because when the product becomes end of life, you can easily get from data the content of

metals that are in the product, and that's basically very helpful to define your recycling process.

I also, I'm happy that in terms of rare earths and magnets, you have some recyclability quotas that each EU country must meet, and also each producer of magnets bearing products like an electric motor and so on. But on the other side, it's hard, the act defines like a target, right? And also obligations.

But for my side, it's weak in terms of offering finance support to de-risk some projects and activities. So at the end, it's a business at the end of the day. So you compete with a product that you can recycle from waste, but then you compete with a Chinese competitor, which offers the same with a lower price, or other metals are coming from abroad.

So at the end, you offer this and you compete with the other. And then if we will have like the help from the act in terms of, okay, we're going to have a tax credit or some support on investment and so on, I think this will be helpful to have like greener, more positive numbers in the business case. So at the end, this part of the business case is very weak in the act, or I have not seen a clear, but I was checking, I attended last week info session for the strategic projects under the critical raw materials act.

I don't know if you have heard of it, but I think it's really useful for you to know what is it about. But in terms of financing, okay, you apply your project to be named or to be selected as a strategic project for the commission, and the commission will assist you and advise you to find financing opportunities. So that doesn't mean that the commission is giving you money to fund your projects, like that will help you to find the opportunity to source some help on financing. So at the end, the EU or the EC is like a bridge between your project and the possible opportunity in terms of funding. So it's not that clear yet at the end.

[Speaker 2]

Okay. So just here, a lot of interesting things. The first one. So we agree that even as a recycling company, as it's touched to the value chain of strategic materials, you can also apply for some strategic project status. But you are telling me that's like the EU in general, in fact, they will help companies to have like basic, yeah, it will be like a bridge, right? What they propose, they don't concretely say, let's put like X amount of money on the table. It's really like just we will give you the right person and help you to pitch your project, right? So

it's not really concrete in terms of what they propose to companies to finance, if I understand.

[Speaker 1]

So at the end, I'm reading here some slides that I have. Well, you apply your project to be selected as a strategic project and once it's selected, you have some benefits in terms of speeding up the permitting, which is a good point, I would say, from the act. So you have like a permitted phase, a maximum 15 months to get the green light for the permit. You also have some support in administrative procedures at EU level. But in terms of finance, it says the board will provide coordination and advice to secure remaining financing.

[Speaker 2]

Okay.

[Speaker 1]

So at the end, it's just like a support that they will provide. So I'm pasting on the chat the screenshot from this session that I attended. So you can check it for later.

[Speaker 2]

Yes, perfect.

[Speaker 1]

And I'm also going to paste the website of this strategic project call that we can apply for. And for me, this is the next tangible way to see the act, basically.

[Speaker 2]

Okay, the financing part. And you also told at the beginning of our meeting, if I understood well, that for one of your plans, you are doing the permitting process.

[Speaker 1]

Sorry, can you repeat?

[Speaker 2]

I think if I heard well that at the beginning of the call that you say that for one of your plans, you are waiting for permitting or licensing or like you are doing something about that. Yes. And I was wondering, because I know for mining companies that can be very long and it takes a long time. But is it the same for recycling companies? And do you ever saw any issues to get like those kind of



permitting? Because in my mind, in fact, recycling is more cleaner. It's like, you know.

[Speaker 1]

Yeah, definitely. I would say performing recycling activities doesn't make you feel the permitting process lighter. Sometimes it's a bottleneck in all the project phase.

And especially in terms of the environmental regulation, like your process goes under evaluation and then you need to see if they reject that you, the influence that you meet to the environments are aligned with the local wastewater environmental regulation. And some of them, they have like very, very low limit values in terms of metals, which sometimes if you go deeper on why they set up those numbers, sometimes they are lower than the state of their technologies. And they came up like from, you don't know why, how they decided to put these numbers is there's no like clear guidance or clear like backup in terms of, okay, we decided to put like 0.5 ppm because of that study or maybe they use another study from another location and another context. At the end, it's difficult for us in some aspects. So at the end, you need to go for an application process and you need to wait and then you get the resolution and then you send a complaint or an appeal process and to see and then to step back and forth until you finally have the answer and the green light to go on. And also the social aspect is really important.

At least in our case, it's not, that's not happened. But in other European projects on metal processing and metal recycling, the local community has a strong impact on the permitting. So there are cases of lithium projects in Spain and Serbia that the community is so strong and also got the involvement of politicians or majors or whatever that is helping them to stop the projects because of how it's affected to the local population.

I remember a lithium project in Spain that, unfortunately, in the chemical sense, I would say the area where the lithium is located has some religious meaning to the local town, which is less than one kilometer away. So then you have this issue of proximity in terms of kilometers, but you also have this issue of religion, which is this town is really has lots of faith on Virgin Mary and so on. So at the end, they have this common sense to stop projects because they don't want to be this area exploited.

So at the end, the local government sent like an application to the Spanish authorities came in to stop the permitting and they won't. Okay, so this is stuff

like the exploitation of lithium reserves at the end that will make to have to make like new batteries, you know, like decarbonizing technologies, but against what? Like to keep like a local community like with their status. So at the end, it's a balance and you have environmental and social considerations that you need to take care of your project.

[Speaker 2]

So even like for recycling plants, you can get like or so like public, let's say, yeah, social issues of public acceptance. It's really interesting. And here you talk to me about like permitting, financing, and let's say sometimes also social acceptance in terms of maybe challenge challenges for recycling companies. And do you have in mind maybe other challenges that a company like yours can face in general?

[Speaker 1]

Yes, also in terms of the sourcing of the material to recycle, it's also challenging. I would say in both the availability and technical feasibility. Let's say.

In the case of magnets and rare earths, the current scenario is really complicated, I would say. So, well, rare earths is a family of lots of elements, but you have like the magnet rare earths, which are four, and they're part of the permanent magnets, which are embedded in a rotor of an electric motor, right? And then you have like these electric motors for EVs, for wind turbines, for household appliances, and so on.

So when like an EV motor goes into end of life phase, it is sold to a scrap shredder or dealer. So this company takes the motor and they shred it. And at the end, they have like iron scrap, aluminum scrap, copper scrap, different streams.

And the rare earths are diluted in the iron scrap, right? So at the end, they sell this whole bunch of iron scrap for the furnaces and the metallurgical companies, like this is a very strong and solid business. But in terms of rare earths, there's no point, economical incentive to take this iron scrap fraction and to do hydrometallurgical recycling.

So at the end, the way on how the waste containing critical raw materials is being performed nowadays, it's really challenging for companies like ours to perform the recycling of those metals, right? So the same of lithium from batteries. At the end, everyone is putting new batteries on the market and improving the performance of the energy.

But at the end, you need to wait like 15 years to see that those batteries will be end of life, right? So nowadays, it's more about recycling batteries from house, from these small batteries, from toys or from household applications, but not from electric cars. So at the end, the volumes for recycling critical raw materials are not that abundant yet.

And you have a strong competition because there are like lots of projects in Europe, like with that funding, trying to have green numbers after the construction phase is made. So there are lots of business agreements between battery manufacturers and recyclers as well to recycle the metals, not only from the end of post-consumer waste, but also from the manufacturing waste, like all these production scrap and waste streams that are being generated when you make the battery, right? So you have this issue as well.

And then you also have the competition like a non-EU competition. You have the Chinese market, you have the American market, and you have the European market as strong forces. And since in the EU and in the States, you have the Inflation Reduction Act, which is the big competition of the Critical Raw Material Act.

So unlike this act, the American one, it gives like clear incentives in terms of financing incentives, like tax reductions or subsidies, or putting a clear percentage on each phase of the value chain for batteries, for instance. So I've seen like some graphs comparing like, well, in China, producing a battery is costing X, and then with this Inflation Reduction Act in America, you have the same X in America now. In contracts in Europe, it is costing 2X, let's say, for the moment.

So if I am an investor, like wants to invest in a battery production or recycling plant, of course, I'll go to the States now because they have like more incentives and it will cost me less to produce a battery. So at the end, you can, Europe can set up those targets in the act, which are really nice for being like to stimulate recycling and domestic production, exploration, recycling. But at the end of the day, if you don't have like a strong support in terms of the business case, it's not going to happen.

[Speaker 2]

Okay, it's super interesting. I will have some questions about it. So first one, you talked also about tax credits. So I was for in terms of financing. So I was wondering like what you wanted to like, what you meant by that is, do you

mean that here as you operate in Europe, you create value. So part of that value, like the government can give it back to it or is it like a CO2 related?

[Speaker 1]

I'm not that clear on the mechanisms for finance support. But as far as I could derive is you need to pay some taxes, like after your profits. And then you need to maybe the inflation reduction act is asking you to pay less taxes.

I'm looking at chart that they have like from long time ago, that which is comparing the the both the inflation reduction act and the which can be useful for you, I guess, for your research. So we can keep on talking and I will based on the chart.

[Speaker 2]

Perfect. Thanks. So a question that I asked myself is, so you talked that there are a lot of agreement, for example, with companies and the recycling companies.

And you're so that a challenge is to to get the waste. So I was wondering like, how, it works more concretely. So, for example, for a recycling company or hydrometals.

So when you buy like matter, like waste from a client or a company in general, do you need to when once is recycled to give it back to companies or is it like a case by case?

[Speaker 1]

It's case by case and we have two ways, basically. So the first way it's totally which means we receive a waste or a byproduct from a company and they want the same metals in another form of purity. So we basically we charge them like a treatment fee for this process like could be washing or purification, conversion, whatever.

So it's like you give me your amounts of material and we do the process, we give you back and then you recharge your ex-experts. So that's the only end. And on the other side, we have the second case, which you have your ways with your metals and you basically want money from it and you don't want to trade it anymore.

So we get a sample and then we try to define a process and a customer that they can buy this product. So at the end, you have both sides in the business case, like we will buy your material and then we will sell it to another party.

[Speaker 2]

Okay. And like when you said it, I mean, I've seen it on your website. That's I think like you have like a partner in like 50 countries or in a lot of different countries.

So let's say in the case where you don't have to return to the client after treatment. So when you can sell like the final product, I guess like you can sell it outside Europe as a company that gives the most amount of money. At least that's what I will do too, because at the end, it's a company, right?

So I was wondering, for example, if I will check it, I see you sent in the chat. So at the end, I was wondering if like those like hacks or legislation are really useful to make like EU more independent. Because if you are a company like recycling or even in mining, for example, and that you have a buyer in, for example, let's take China or Asia that propose more money to take it because they have less energy cost or I mean, you get it right.

You will sell it to them, I guess. So I was wondering if or so in terms of at the end, once it's traded, if they will need some more incentive to make it more competitive to not sell outside Europe. If you do so, I don't know.

[Speaker 1]

Yeah, I mean, we are we want to make money, right? We want to make good businesses. So at the end, we will sell it to the one that is giving us the best offer, either European or Chinese or whatever.

So at the end, apart from this mission to keep the loop in Europe at the end, we'll go for the best offer out of Europe at the end. So if the act sets like clear regulations or obligations to block the export of material to China or to other countries, OK, so we need to obey that, right? But for the moment, it's not the case.

So at the end, we will keep doing our normal practices, I would say. So at the end, that depends on the company's vision and mission. Like, OK, so we want to keep everything in Europe regardless of any business cases.

So that's why we don't want to offer this material to other non-European outlets. But that's on the company's point of view.

[Speaker 2]

Yeah, OK. Yeah, because after our meeting, I was thinking at that. Because I mean, like if I was a company, I would also sell to the one that gives more money because at the end, yeah.

And I was also wondering, because you talked about permanent magnets and also rare earth. So like, first, I was wondering why they did a differentiation in the same act between recycling in general and permanent magnets. Because, yes, I don't really understand why they did the differentiation between those two.

And the second thing about that is like, how do you assess the current measure implemented for a permanent magnet in the CRM Act?

[Speaker 1]

Well, to be honest, I have not read the Act fully. I just read the chapter for magnets.

[Speaker 2]

Yeah, yeah. For this one, yeah.

[Speaker 1]

Because I mean, I'm also working for an R&D project on magnets recycling. So I needed to know what's going on in that sense. And the evaluation of the current status, it comes from an R&D project.

We're part of that. So we can evaluate how the state of the art for metal recycler companies and waste collectors and recyclers.

[Speaker 2]

1. And OK. OK. And also, like, yes, here, like, we are talking a lot about recycling in general, like in a lot of different legislation, not only as a CRMA. And I wanted your opinion about like your perspective for other kind of circularity, like, for example, like reduction or like repurpose, repair. Like, what do you think about that? And do you think that's, as the EU in general, put enough incentive for it?

[Speaker 1]

Well, we don't need to forget the waste of the circular economy. So at the end you should, when you have like an end of life product or a waste in general, you should evaluate like first like the direct reuse or like the then the repurposing, refurbishing and recycling which means like the physical chemical process to extract the raw material from this component. It's the last sort of the last step.

[Speaker 2]

Okay.

[Speaker 1]

Yeah, you have these are these the arts of circular economy. So recycling I guess is the last one or you incinerate to what to which is not the yeah, yeah, it's banned here.

[Speaker 2]

So yeah. Okay.

[Speaker 1]

So at the end, you have these and but in terms of what should be unlocked, I would say the design for circularity is very important that the stronger legislation should be played in terms of a the electric motor should be designed in the in a friendly way in order to make the dismantling and extraction of the magnet really easy. Because now if you try to open to extract the magnet from the motor, it's really like manual labor because you don't know the configuration and then the magnets are so glued to the rotor so it's very like case by case according to the brand, the model, the year and so on. So it should be like more regulations in terms of you should decide in a way that will be easy to extract the components.

So I would say the unlocking the waste and the metal from the upstream part, it's really crucial. Because in terms of hydrometallurgical recycling, it's more or less straightforward or it's easier to study a chemical dissolution for dissolving and then purifying and recovering the metals. So but that can, as I said before, the access to those sources of waste is complicated. I'm talking about the post-consumer waste, right? Because Europe imports basically most of the raw materials to manufacture. Here the products, right?

So they can make the battery here by importing the carbon, the lithium, the anode, whatever. They make the battery here and then you own the battery in Europe and then becomes end of life. So that's your source of waste, the post-consumer material.

[Speaker 2]

And yeah, I was also wondering maybe if there are some sector or some, yes, sector or industry in general where, for example, secondary materials cannot be utilized or for those you cannot recycle, for instance, and you need more primary materials.

[Speaker 1]

As far as I know, there's no limitations. So you can't, I mean, the metals are not losing their properties if they come from primary or secondary sources. It's the same.

It's just a point of purity. So at the end you can recover lithium from batteries, but you should do a strong purification process to make a lithium battery grade that has the same quality as the one produced from the mine, basically. And of course in battery recycling, for instance, you have more steps to meet because it's a mixture of different metals and organics, electrolytes.

So at the end you should do different steps and that sometimes they become costly. So also that's an important point to go and not to go for a recycling business case. So as long as you meet the purity standards, it's okay to source the metal from a primary or secondary source.

[Speaker 2]

Okay. So it's really more so in terms of cost perspective. Theoretically, you could even get it through your technology alone to get like 100%. I guess 100%, maybe not, but it's a 99% of purity. But it will cost more. So at the end, it's also about that at a certain point, like if it costs too much, it's more useful, like it's better to go to other like, yeah. Okay. I get it. And yes.

So you, you're so talked about like labelling for recycling product here. And I was wondering like, what was your thought about it? So do you think like, it's really useful that now as a company will have to, I mean, to show what they in their product and also read those labelling?

[Speaker 1]

Yeah. Sorry, what was the question again?

[Speaker 2]

Yes. So do you feel that labelling will do make a big difference and or so that it was a good initiative, this aspect of labelling?

[Speaker 1]

Yeah, it will be really helpful for us metal recyclers, because we will know in advance what's in there and we don't need to spend time of analysing them or to develop a technique to analyse the product.

[Speaker 2]

Okay.

[Speaker 1]



So in terms of magnets, because you look, you see a black block, let's say. So you don't know what's in there. So you need to do like destructive or not destructive chemical analysis to know what's the percentage of metal records there. So if you have the label before you will avoid all these and then you can also do some sorting of the magnets embedded on the end of the product. So you have like a different streams prior the hydrometallurgical phase.

[Speaker 2]

Okay.

[Speaker 1]

So I would say it's, so that's a good way to unlock the upstream waste.

[Speaker 2]

Okay. Super interesting. And you also talked about competition with, for example, a Chinese company.

So in my mind, in fact, in terms of everything that was related to recycling, sustainability in general, like Europe, the EU was a leader, I mean, at least in my mind. But now I'm wondering if it's still a competitive advantage, like those recycling plan, for example, or like even sustainability aspect of the EU compared, for example, to China or other, like other countries, like even the US. So would you say the EU has an advantage in terms of recycling and also sustainability practices?

[Speaker 1]

I guess the EU has more advantage in terms of sustainability standards, that you are developing a chemical industry with a framework of sustainability, like environmental, social, economical. But I mean, that's it. I mean, there's no more incentive in terms of the economic, you can go to other places to build new projects.

So at the end, we are trying to do the best task we can do here in Belgium with our recycling company in terms of recycling activities, since the plant is already built. We have a long track record on site recycling from the site industry. So at the end, we try to grow on those business opportunities in terms of critical raw materials and so on.

So at the end, you try to grow with your resources and your limitations. And at the end, it's a global economy. So you also compete with the other regions.

So they have like lower ESG standards, for instance, or like more strict practices in terms of economics, so they can offer a better product at a lower price. And it's a free market at the end. So for the moment, there's no clear like blockage or a way to keep the material in Europe basically, more than the targets from there. But at the end, you will compete with the other markets anyway.

[Speaker 2]

Okay. And I was also just curious because we talked also with strategic project and there is a question that came up to my mind. So let's say here, you told me that you recycle rare earth

And rare earth is like in general, like consider a strategic materials. So it could basically go to consider a strategic project, let's say, eventually.

[Speaker 1]

It can be considered a strategic project because it's part of the list.

[Speaker 2]

Yes. And yes. But last time, I think when we talked, you also told me that, for example, like if I remember well, the infrastructure could be, for example, adapted or changed if you change like the type of materials that go on it.

So for example, I totally don't know about the technical aspect, but let's say you have a lithium and you could change. So at the end, I was wondering if it's an issue or not, the possibility that something that could have been considered a strategic project with infrastructure could after that changed and just utilize a different kind of materials in it.

[Speaker 1]

Yeah, definitely. That's our added value or benefit of the hydrometal is we have a plant with tanks and filter presses that we need to fit with different material. So we can have like this year a case for lithium recycling from batteries and on year two, like rare earth recycling or year three cobalt.

So basically adapt the different equipment that we have in order to feed the plant and make a process. So that's an advantage of this company compared to others, which are like projects made out of scratch, looking for investment, specifically targeting a one process, like a metal recycle, a battery recycling company made just to recycle, recycling, made just to recycle batteries. So that's a clear one case they have. And in contrast, we could have different business cases for different metals.

[Speaker 2]

Okay, I get it. So it's not like every like recycling company has a possibility to really towards different input stream for the technology. It's really particular to hydrometal and to maybe one or two others.

[Speaker 1]

Yeah. Maybe we have also similar, there are similar companies in the market and they have the same advantage. So we adapt our plant for the business opportunities we spot and then we can make campaigns with a timeframe at the end.

So for instance, if we see that the market price is really low, we will not go for that business, instead we'll go for another one that the metal price is higher. So we can move freely from one metal, from one business to the other based on the economics. Or I don't know, maybe the metal price for this case is high, but the reagent cost to produce your, maybe your processes are also high.

So you have more cost and at the end, the profits are not the ones that you want. And then you need to compare, okay, I'm going to use the same plant for process A or process B, process C, and you have to compare the profits that you will make. So at the end, it's a profit comparison, I would say, or another economic parameters that you cross-evaluate. And then you just say, okay, let's go for that one.

[Speaker 2]

And so if I understand well, like the price is really an important factor in general. And so last time I remember at the events, we talked a lot about like an internal market for the EU. And how do you like evaluate or maybe visualize these internal markets? Do you feel that this could be a good idea? Or like, what does it need to make it successful in general?

[Speaker 1]

Yeah, I mean, I think it's a good idea to have an internal market for specific metals, and then you can have a specific pricing formula. And then you know your logistics route and so on. So I see it as a good option. I'm not that clear on what's needed for that. But if this framework can be done, I think yes, I'll go for it.

[Speaker 2]

Okay, perfect. And I've still like, I think two questions that came up to my mind, maybe three. The first one was about like, I think that's with the CRMA that now

as a country we have, let's say, it will be required for country to do like national program for circularity and waste prevention in general.

So what's your opinion about like as a requirement of member states to really like implement national program to prevent waste and circularity, recycling in general? Do you think it could be effective? Or do you think it's just like, theoretical?

[Speaker 1]

As long as those programs could provide financing support, that could be very beneficial for us. Okay, maybe we need to update our existing plan with like a new tank or more equipment, or to improve on equipment, and we need 8 million euros investment. And we don't know, we don't have this money for that investment.

So we can apply for those subsidies program that are, or grants program that are giving this money if to deploy or unlock recycling business cases. If this idea is in the frame of those national programs, I think it's very good. If it's more than the, we need like more concrete tools, I would say, to develop good business cases and as a consequence of that, we can contribute to the CRMA goals.

[Speaker 2]

Okay, very interesting. And another question was maybe about rare earth. So I've seen that for rare earth, the recycling rate is very low, actually.

[Speaker 1]

Less than 1%.

[Speaker 2]

Yes. And for me, I didn't expect that low. So is it like, because like technology are not yet advanced and or so, do you think that it would have been useful to put like maybe objectives for like different materials? Because I guess it's super hard to go from 1% to 25%, at least for a half in five years, for instance, right?

[Speaker 1]

Yeah, exactly. Yeah, I mean, it's low because of what I said before, the rare earths in magnets are shredded. I mean, the magnets are shredded with the whole device, the whole motor, and then you get different base metal products.

And then you sold as iron scrap. And the rare earths are diluted in very low concentration there. And then you sell this whole bunch of iron scrap as iron,

with the iron price, right?

So that's the current state of the art in terms of the business. And we need to develop new and better technologies to detect which, because you need to imagine like waste electronic and electric devices. We collector and recycler, they just have like a big yard with different like stockpiles of different motors and things that are like messy and rough.

How come this guy can know that, okay, let's separate this motor because it has rare earths. So there's no way. So you need to apply different forces like, you know, labeling or like some guidance to those recyclers to know, okay, so those brands are more likely to have rare earths on their magnets.

So it means like you need to separate them from the pile that will be shredded. So it's like a new policy, but like a protocol in terms of managing this type of waste with magnets and rare earths. And then you need to develop another technology that can be better than manual labor in terms of dismantling and to isolate and extract the magnet.

So at the end, you need to combine all these forces and then to get the magnet isolated, which can go to hydrometallurgical recycling very easily. So again, it's just unlocking the upstream part, like when you collect the end of life product with the rare earths and magnets for recycling.

[Speaker 2]

Okay. So it's like really unlocking it with also like labeling, for instance. And but once it's unlocked, I guess like the technology is still maybe already, I don't know, existing for some parts in terms of supply chain, but it also depends in terms of a cost, if it will be a good business case or not, depending of the primary raw materials or even recycling materials that come from China, because I guess like they're in Chinese company or other countries like US, they also sell a recycling company, a recycling things to your company, right?

[Speaker 1]

Yeah.

[Speaker 2]

Okay.

[Speaker 1]

And at the end, the advantage of American and Chinese plants is they can combine processing primary and secondary resources. So I would say in China

has ownership, for instance, from the mine with rare earths, they do everything, the extraction of the ore, the crushing, then they do the prep test, the concentrate of rare earths, then they separate each rare earths, they make this highly pure, highly pure rare earths, which they make the alloy for the magnet. Then they sell, they put the magnet in the motor, they sell the EV, for instance, then it has a take-back system where the owner of the EV needs to return the components, right?

So at the end, this Chinese company can take their motor, they have like the protocol for extracting the magnet, they know, and then they can put it in the same process line as the one from the primary source. So at the end, because they have more volumes of material, they have more robust process that they can take basically different type of material, and then they will end up in the same quality. In contrast here, in Europe, you don't have primary production of metals, right? You don't have mines. So at the end, it's just like to make these small size recycling plants. I'm saying small because you need to compare the volumes with respect to the like the state, Chile or China, because they have deposits, primary deposits, they have mines, so it's bigger volumes that they build, they build bigger plants for more volumes of material.

[Speaker 2]

Okay, so it's also about like, maybe also, they have also maybe also an advantage related with like integration for the company. So this is like, is the fact that their supply channels are so integrated, right?

[Speaker 1]

Yeah, integration.

[Speaker 2]

And like that.

[Speaker 1]

More of the European projects are developing cases based on this combination of primary streams and secondary streams.

[Speaker 2]

Okay.

[Speaker 1]

Because you know that the volumes of recycled sources are not that predictable. It depends of how the collection scheme is working or the, you

know, all this stuff.

[Speaker 2]

And like, just bouncing back on that, I was wondering for the, for example, what will be the impact of strategic partnership on a company like, for example, Hydrometal or in general for the recycling industry? Because I guess, for example, that right now, you talk that in China or in US or in Chile, they have like those primary resources. And so, for example, the fact that right now, there is maybe, they try to do more partnership with Chile, for example, like, will it have an impact for like recycling in general? And maybe also like what you explained with the advantage of China right now, or do you not see like any impact based on strategic partnership for recycling?

[Speaker 1]

Yeah. I mean, of course, it's about the impact on strategic partnership because you secure flows of material. At the end, it's all about securing the input feed and the product to others.

[Speaker 2]

Okay.

[Speaker 1]

You commit like a contract that will provide you X thousand tons per year to make your process in the plant and then we need to find the offtake for that or it's a tolling. So, at the end, yeah, I would say the idea is to set up a strategic long-term partnership more than case-by-case recycling process, which are more challenging.

[Speaker 2]

Okay. And my last question is about just certification scheme. I don't know, just like very quickly, if like recycling plants need or so to do those certification scheme or can do those certification scheme like the one that mining company does or they don't really do certification scheme?

[Speaker 1]

Yes, I guess we should do certification schemes, but I'm not familiar with it.

[Speaker 2]

Okay, perfect. So, maybe are there anything else you would like to add that we haven't covered and that could be useful in your opinion?

[Speaker 1]

No, I think we have covered all points from a recycler perspective, which are the ones that are doing the job actually more than the politicians or experts that they are coming from other backgrounds that sometimes they don't know the challenges that imply sourcing material and doing industrial recycling. So, yeah, at the end, we just need more support in terms of the business case to unlock recycling cases.

[Speaker 2]

And, yeah, you talked about that. So, sometimes there is some disconnection between like regulation or politics in general and like what really industries are like living in general.

[Speaker 1]

Yeah, there's lots of disconnection or misconnection between both courses because at the end of the day, you have lawyers and people in politics are writing and proposing those regulations, but I guess they are supported by technical bodies that they collect opinion from the industry.

[Speaker 2]

Okay.

[Speaker 1]

But I think this bridge should be improved, I would say, like to make it stronger. Or basically, I would like to see more people from technical background to more politics and politician roles or experts role in the regulations. At the end, there is also points of preferences, I guess, that people from the technical world don't like this and all this type of lobbying stuff and to find the right wording and to make the right, to set up the right percentage of recovery and targets because it involves like lots of, you know, politics at the end, right? And on the other side, like the people from politics, they don't like to be involved in technicalities and I don't know.

[Speaker 2]

Yes, that's maybe the case. It's true. And maybe like who else would you recommend I speak with to gain further perspective on the topic?

[Speaker 1]

Sorry, can you repeat?

[Speaker 2]



Yes. Like if you have someone in mind that I could like maybe like that you could maybe recommend me to speak with to get further insight or perspective in general.

[Speaker 1]

Okay. Well, I have some names in mind, but I don't know if I'm allowed to share it because it implies to get approval from the company. Because at the end, it's not me that will give your name, it's the company.

But I will try to find a way to give you some names for your interviews.

[Speaker 2]

Yes. Otherwise, no worries about it. But thank you.

[Speaker 1]

But there are also some clusters like you can check the Flanders Metals Valley cluster, which gathers Umicore, Aurubis, Iron Metal and other metal recyclers in Flanders or in Belgium. So, it's also a good umbrella organization that can help you to get those contacts as well.

[Speaker 2]

Perfect. Thank you very much.

[Speaker 1]

They're also offering like some free events like for job fairs and stuff for students. So, maybe you can also attend there and meet those people for the interviews. So, I guess reaching those umbrella organizations will give you like a good contact person for the rest. So, I see Flanders Metals Valley.

[Speaker 2]

Perfect.

[Speaker 1]

So, those two are okay. I don't know. Also Copper, the Copper organization in Brussels, Eurometaux, the one that you attended.

[Speaker 2]

Yeah. And perfect. I will try to see from that side. And tomorrow you will come to the events. I think there is a...

[Speaker 1]

Yeah.

[Speaker 2]

Yes, you too. Yeah. Because I think you told me about that event.

[Speaker 1]

I gave it to you. Yes. I will try to attend.

[Speaker 2]

And will you go to the one of next week? Like the big one, like from EIT.

[Speaker 1]

The EIT. I found it too expensive.

[Speaker 1]

So, thank you very much. You're welcome. Thank you very much too.

[Speaker 2]

Yes. Thank you very much for your time and for your help, P20. And see you tomorrow at the event.

[Speaker 1]

Thank you very much for the time and see you tomorrow. See you tomorrow. Bye-bye.

[Speaker 2]

See you tomorrow. Bye. Bye.

## Interview with P21

[Speaker 2]= Gauthier

[Speaker 1]= P21

[Speaker 2]

Yeah, maybe just a little bit, because I'm used to do it in English. So thanks for that. So just maybe I can give you a little bit more context about the meeting. I think it could be great. So in fact, I'm a student from UCL Louvain, and I'm in my final year of master. And I decided for my master thesis to focus on the analysis of the EU strategy for critical raw materials as defined in the CRMA.

And we focus more on the social and also environmental side of it. And I went to a kind of conference and meeting where I met and I heard Judith talk about

the subject. And I had a lot of different questions.

And that's why I asked first to Judith to have that meeting and then to you. So yes, I can also ensure you that everything that will be said will stay confidential and anonymous. And maybe can I just, let's say, record the audio like that I can listen it later on?

[Speaker 1]

Of course. Of course, no problem.

[Speaker 2]

So maybe if you can, can you briefly introduce yourself and explain? Yeah, of course. Yes.

[Speaker 1]

Yeah, so my name is P21. I'm working as a senior policy advisor for a Trade Union representative. I don't know if you know the Trade Union representative Europe already. Or maybe I can quickly share a bit of what we are doing. Or you already know?

[Speaker 2]

I mean, I checked also. But if you want, feel free to tell me.

[Speaker 1]

In a nutshell, we represent the workers in the industry in Europe. So we are a federation of trade unions. So we represent the national trade union in industries at the EU level.

So they are our members. We are working for them. And when it comes to critical raw materials, we represent workers in the industry.

So the one who needs critical raw materials. But we also represent workers in the extractive industry. So I mean, from both sides, we are the one in Europe representing the interest of workers when it comes to critical raw materials.

Yeah, so I'm doing a lot of things in this Trade Union representative. But among them, I'm dealing, of course, with the raw material strategy. Not only critical raw material strategy, but the raw material strategy in our industrial policy team, I would say.

I'm also in charge of circular economy. And you may see the link with both topics. And I'm also following specific sectors.

Because you know, industry and energy are like, we are representing workers in different sectors. And I'm in charge of different sectors, such as the paper sector, gas sector, electricity sector, but also extractive industry sector. For example, we have, but yeah, maybe I will explain later.

But we have a sectoral society dialogue committee on extractive industry, in which we represent the workers. And we are discussing with employers at EU level about different topics when it comes to mining in Europe. So that's also something I'm doing.

Yeah, and I'm also following some other topics. But I mean, when it comes to raw materials, you see the links between the different files. Also, even in energy and electricity, we are discussing a lot about this question of critical raw materials.

Because when it comes to the electrification of Europe, this is also the question of the availability of the raw materials to develop the net zero industry when it comes to electrification is very important. So that's why we follow this question quite closely. And since a long time, I would say, of course, now there is a lot of events and a lot of chat and paper related to critical raw materials.

But we are working on this topic since a long time now, because it's very much important that we in Europe, but also globally, we have a strategy. But we are also ensuring, which is probably more important, that the workers' rights are respected when it comes to this important question. And that's not always the highest topic on the agenda.

[Speaker 2]

No, that's super interesting. And I will have a few questions that touch the different aspects of what you just told me about it. But first, I was wondering, to what extent does the actual outcome of the CRMA align with its, let's say, intended strategy goals? Are you satisfied with it? And can you maybe comment on the feasibility of its objectives?

[Speaker 1]

Yeah, I would say that we have been calling since a long time to have a strategy at EU level, because we saw that this was not the idea of doing this on the member state level. This will not work, I would say. So we've been calling to have a strategy.

We had first the Critical Raw Materials Action Plan, I think, three or four years ago, with the creation of this Raw Materials Alliance, etc. So, yeah, this

momentum was quite interesting, because we saw the Critical Raw Materials question back on the table, back on the agenda. So that was interesting.

And then the European Commission has launched this Green Deal Industrial Plan with these two legs, I would say, the Net Zero Industry Act and the Critical Raw Materials Act. So we were quite happy to see that industrial policy with, I would say, a comprehensive approach when it comes to this question of raw materials was put on the table. So I would say when it comes to the general objective of doing something on critical raw materials, we welcome, of course, the initiative to also try to have coordinated action at EU level in order to reinforce our industrial policy, but also our autonomic strategy and also our green transition, because this is the main objective, I would say, first to fulfil our Paris objective with industrial policy, which is coherent with this climate objective. So for us, it was quite a good sign to have something on the table. We follow very closely the entire process, trying to advocate to reinforce the social pillar of it, because maybe you didn't see that, but when we received the first Critical Raw Materials proposal, there was no mention at all about the social issue.

I mean, nothing. It's like it was completely in another world, without people working in the sector, without any, I mean, environmental aspect was a bit more present, but not that much. So the narrative was, I would say, catastrophic.

And then, because of maybe advocacy of different social actors, I would say, the final proposal coming from the Commission was more okay. I mean, the narrative is very good when it comes to this question of ensuring very high-level social standards, etc. The narrative is very good.

And then we also advocate a lot with the European Parliament to reinforce the social aspect and to give them more teeth, because we really like the narrative, but for us for now, it's just narrative. We do not feel that there is a strong tool that will ensure that all this narrative is respected. This is, I would say, our general feeling.

But of course, some stuff are now put on the table. I just saw last week that the European Commission has launched this call for strategic project in which the social pillar is touched, I would say. So let's see how the implementation, when it comes to this question, will deliver, I would say.

But that would be our main assessment. The narrative is good. We are happy to see an industrial policy which is more comprehensive with this raw material aspect back on the table.

But when it comes to the social aspect, the link with the just transition, the need to involve the right stakeholders, maybe we would have been more happy to see more on those aspects. When you compare this with, for example, the IRA in the US that is putting very strong social conditionalities to any public support, we do not have that at EU level at all. So that's a bit problematic.

Of course, there are also some things that will have to be implemented, such as these famous social standards, but maybe I can touch upon that later on. But we will have this ISO on sustainable raw materials that the European Commission will use in the future as the standards for the social and environmental aspects. But we will have to see if it will be implemented.

And then maybe our second assessment is that it's good. But at the end, the critical raw materials, it will just help to accelerate permitting procedure and to also help stakeholders to have the right access to finance, etc. So that's just that.

There is no fresh money, no concrete plan to, I would say, help or to accompany some projects, etc. So, yeah, would that deliver? I don't know.

I mean, again, this is back on the table. People are not afraid anymore to talk about this kind of project. I mean, in the EU bubble, because it's probably different at national level and even more in the public opinion.

But I mean, this is something that people now are discussing, etc. But yeah, no fresh money. And again, this is linked to other dossiers that are discussed at EU level.

For example, they say that they would like to accelerate permit procedure for this strategic project. But at the same time, the European Commission has just proposed also with the Council and the EP to put austerity back on the agenda, which means that there will be less public funds for the administration. So probably less people working in this administration that will deliver the permits.

So, you know, it's like constructing policies that will not help at all. And these things, when it comes to austerity, for us, it's a catastrophe. It's like *se tirer une balle dans le pied*, as we would say in French, because without any strong public investment, it will not deliver.

If we just let the market do it, probably it will not work. I mean, when it comes to this proposal to have more recycling plants, we know that for the moment, this is not economically viable. So if we do not put resources, public ownership on some stuff, then probably the market alone will not deliver.

So yeah, that's the first thing I wanted to say. And when it comes to, because here we are just talking about raw materials coming from Europe, but when it comes to these international partnerships, for us, the most important thing is really to strengthen the social, I'm not talking about environmental, but I mean, it's always the social and environmental standards are always the loser, I would say. So for us, there is absolutely need regulation when it comes to these questions.

So due diligence directive will help, but it will just touch upon some companies. And we now see more and more of this kind of strategic, I don't even remember the name, this strategic partnerships, bilateral strategic partnership between countries, that is more or less beginning to replace international trade agreement. So this means that these strategic partnerships are discussed with closed door, without any democratic processes, without the involvement of the right stakeholders, without any public opinion seeing what's happening.

Because I mean, when we talk about big trade agreements, such as the Mercosur, et cetera, I mean, the civil society, public opinion is informed, but with this bilateral, very quickly signed agreement for raw materials, we do not see a very, see as a very good sign for the democratic process. So, yeah, probably I missed a lot of the assessment we have, but I would say in a nutshell, that's a bit what we think. This is a good thing that we are discussing this again, but of course, we will need far more to deliver something.

[Speaker 2]

No, it was super interesting. And I mean, I took note of a lot of points I could ask you later on for other questions. So here you talk that compared to the first version of the CRMA, let's say, that's a narrative.

And also, like, there was a lot of improvement attached to the social aspect of it. But I was still wondering, like, in your opinion, what are still the main gaps in terms of the social aspect for the CRMA? So you talked quickly here about, for example, like strategic partnership, but do you have other, let's say, ideas in mind?

[Speaker 1]

Yeah, and maybe just to be more precise on that, when I was saying that the narrative was better, it was before the first draft that is leaked from the European Commission. So not the final outcome of the trialogue. So when the Commission has leaked the first draft, it was a catastrophe, then the official proposal was better.

So that's not because of the EP or the European Council. What we like is that they put the question of good quality job on the table with quite strong proposals. But I would say that the main gap is about implementation.

I mean, it's the question of quality job, the question of just transition, the question of skilling workers and involvement of the social partners, which is for us very much important that we also involve the trade unions, the social partners when it comes to this project, because at the end, it's about the workers who are going to mine, who are going to recycle batteries, etc. We have to ensure that we have the best working condition for them. And I mean, the narrative is very vague on that.

So it's good because they talk about good quality job, involvement of social partners, but how are we going to ensure that it will be the case at the end? We do not know. Because it's not precise.

For example, that should have been interesting to see a very concrete checklist that has been discussed with the social partners about what could be the good social criteria. But for the moment, it remains too vague. And this means that everyone agrees, even the, I would say, the one who do not want this social criteria when we are talking, I mean, who could be against good quality job?

Everyone agrees with that, in a way, I would say. But when it comes to define what is a good, yeah, when we will have to define it, probably it will begin to be a bit more different. So it's, yeah, and they also know that they have to also put this social criteria, or I would say narrative on the table, because they have a big problem when it comes to what some call social acceptance.

Nobody wants to see mines back in Europe. I mean, nobody on the local level. In Brussels, it's different, but on the local level, we know how it might be dangerous for the environment, but also for the health and safety of the communities around, and even sometimes for the workers.

So, of course, this is giving new jobs to workers. So that's good. But we do not want any kind of jobs. We need good quality jobs. Otherwise, there is no point with these jobs. And we would like also to see these jobs done in a green way. I mean, not polluting, because the people we are representing, the workers in extractive industries, they also would like to see things changing when it comes to the green transition. They do not want to be seen as the big polluters, the black face, polluting all the water around, etc. So this is also very strongly linked.



But to reply to your question, yeah, I would say that the main gap is about implementation. For the moment, it remains too vague. So this means that everyone could argue that it's okay.

For example, a very concrete example is about this raw materials board. This board will have to check if the strategic projects are indeed strategic, etc. But this will be composed only of member states and maybe some observers from the European Parliament. But we have asked to be part of it. I mean, or to ensure that the trade unions at the national level are consulted. But no, because that would be interesting.

Okay, we do not have a seat on the board. That would have been better. We do not have it.

But then ensure that, for example, if there is a Spanish project, we ask the Spanish trade union, okay, is this going to deliver good quality job? Have you been involved in the process, etc., etc.? But no.

So how are we going to ensure that this is the right thing? And what I heard from the European Commission, because we met them quite a lot of times this last month, is that they are going to ask to external experts to assess if a project is strategic or not.

Okay, this is okay for the social aspect. For us, it's not enough at all. But I mean, this is also now a whole to advocate to ensure that what they put in the critical raw material set will be implemented. But we do not have any binding tool for that. That's a problem.

[Speaker 2]

Okay, it's super interesting. So you will say that for now, there is like, the CRMA is still vague on some some point, like some social aspect. I also understood that. I mean, when I like, they wanted to be vague, because if they are too precise, it could be an issue with investments.

[Speaker 1]

I mean, it's just that if they put all our criteria, for example, about what is a good quality job, then they enter in a big battle with the one who do not want to see that. Because this is also the reality. I mean, employers sometimes are very keen to discuss with trade union about the quality of jobs.

But in some area, as you said, this is just about money, and they would prefer to, we already see that in some countries, I can give you some examples. This is not, I would say, directly linked to the Raw Materials Act, but more to the Net

Zero Industry Act. But we have more and more companies installing their operation plan about battery in Hungary.

And this is a catastrophe, because they are hiring people from, they have to hire workers from third countries, countries from outside Europe, because Hungarians do not want to work in this plan, because the working conditions are so bad, when it comes even to health and safety. I'm even not talking about pay or work-life balance, just the most important thing, which is health and safety. I mean, you go to work and you do not want to see a battery exploding and then burning your face, etc. Even for that, we have major problems. So in Hungary, for the moment, this is a disaster. And I can send you some reports we have received.

Now some NGOs are also working on this topic, but I mean, this is not, I mean, even if the narrative, again, is good, okay, we will re-industrialize Europe with good quality jobs, net zero industries, etc. Yeah, but then on the table, we see also, on the ground, we see also some major problems. So, yeah, my assessment is, of course, that they put the social aspect in the critical or material sector, I would say, also, please, and the social actors, I would say, the trade unions, but also probably some civil society organization.

But now we left to you, this is already good, I mean, then we still have this paper in which they say that they will do this and this. And yeah, I can give you another example. We are going to publish an article probably this week, I can send it to you too.

But for the moment, there is some negotiation between the US and the EU when it comes to this critical raw materials partnerships, which is called critical raw minerals agreement. And we heard that the European Commission is not that pushy when it comes to social aspect. So, even if in the narrative, they say that they have the best standard when it comes to social aspect, we heard that when the doors are closed, there are the ones who do not want to have that much social aspect in the agreement.

We are going to publish something today or this week on that I can send it to you so you have a concrete example about that. So, yeah, that's a bit the problem. Yeah, I mean, we have to recognize that we have very good ideas and now that we will have to build on that.

And like, yeah, really building these social pillars all together. For example, the forthcoming work we will have in the ISO on sustainable raw materials, which is this private certification process, will deliver something. If we have a good

standard and we ensure that all strategic partnerships have to fulfill this criteria, maybe that will be good.

But we know also that this ISO will be already will be ready only in four years or something like that. So, yeah.

[Speaker 2]

Yes, it's super interesting. And so you were telling me that right now for the board, so it's more like representative of member states or like expert like that will be selected. And so right now, like, for example, NGOs or trade unions say they cannot say anything about if a project, yes or no, can be qualified of strategy.

It's really like that board of people that have the word to say about that. And it could be also an issue related to governance process in that sense to impact like environmental and also like social issues. It's super interesting because I thought that's like, like NGOs or like trade union could really participate to it.

And I was also wondering, like, in your opinion, like what are the actual main challenges for a worker in industry related with CRMA in the EU? And also, do you think that the CRMA could help a little bit to solve those challenges?

[Speaker 1]

Yeah, that's a good question. Because we also think that the Critical Raw Materials Act is an opportunity for us to improve the working condition. Because that's, yeah, that's, we know that we have to have good working condition, good social aspect if we want to remain competitive, because this is the part in which we can be competitive compared to other countries.

And we think that we also have to use this opportunity to raise our main messages when it comes to good quality jobs. We have very concrete criteria when it comes to these challenges. But I would say that the first one is, of course, the question of health and safety.

We are going to deal with, like, I call them new, but they are not new at all, but new raw materials for European workers and European companies that are going to recycle batteries, or even process with new raw materials coming from waste, etc. And we do not know yet what are the risks of the exposure of workers to this new material. So for us, this is the main thing.

And the European Commission is currently working on some raw materials, such as I think there will be occupational exposure limits for cobalt and I even don't remember, maybe it was nickel, I think, but for other ones, we still don't

know. So for there, there is also some aspects. The second main challenge for us is really also to ensure that we have unionized jobs, because when you have good social dialogue, so a good discussion between trade union and workers representative and employers, then usually you have good working condition adapted to the context, etc.

So that's also something which is very much important for us, is to organize the workers, ensure that they are represented by a trade union, etc. Then we have also very often put on the table the question of skills, reskilling, upskilling. And this is also linked to the question of transition from, I would say, past raw materials such as coal.

You know that in some regions in Europe, we are going to phase out from the coal mine, but we have there also a very high level expertise when it comes to mining, etc. So yeah, there we still do not see a very concrete plan of reskilling, upskilling and transition.

But we hear also from our members that there is a huge problem when it comes to this question of skills in the sector. So there is a lot to do there also between trade unions and the employers' organizations to ensure that the workers are skilled to meet the jobs. And then I would say the usual suspect when it comes to quality jobs is about the question of pay.

But at the EU level, we are not dealing with that because it's very much a national trade union competencies, work-life balance, so the working time. And also a huge problem when it comes to the question of gender and diversity in the sectors. There is still a lot of inequalities that have to be dealt with. So there we also need, we will need more concrete action and not just a narrative on these aspects.

[Speaker 2]

It's super interesting and I'm new, let's say, in this policy world. So I was wondering, so here you talk a lot about a really different and interesting aspect related to working condition, working, let's say, gender equality or so in those jobs. And I was wondering, like, if you can put it in some policies or it's more like related with implementation, because I guess when you have like a big policy, like the CRMA, it's maybe hard to put it into it or I don't really know how it works. So how can you really solve those issues with policies like the CRMA?

[Speaker 1]

Yeah, but when the narrative is telling that you are going to meet high level social standards, then you have to, I mean, the criteria in which you will help to

strengthen these social standards should also be in there. Because for us, it's also very much important to, industrial policy cannot just work on its own. It has to be a social pillar.

Otherwise, it will just not work. It's the same with the green agenda. If you do not have this social pillar with the green agenda, it will not work because the people are not going to, yeah, this is something which should be very comprehensive and composed of different pillars.

This is key. You cannot have like a just proposal on a very concrete transition aspect without talking about the people who are going to work in the sector, ensure that they will have a stable working environment, this kind of thing. I think it's also very much important that the industrial policy is also taking care of that.

Otherwise, what is happening is that the people are going to start thinking that Europe is not doing anything for them and they are going to vote for extreme right parties. And we already see that in some countries because they feel that they are left behind. We also saw that with the agriculture movement.

They think that they are left behind without being taken into consideration. And then they are against any kind of green deals, this kind of thing, which is a real pity because then we miss all the boxes. The economic development, green development and social development, we fail on all those aspects if you do not have this comprehensive approach.

And we saw that it could work. I mean, in the US, I'm not taking this as a model, but we see very interesting development there. They have said, OK, we are going to help you.

[Speaker 2]

I don't hear you anymore.

[Speaker 1]

I mean, they put some social conditionalities in their proposal, which for us is very good because it will really help to develop the sectors in Europe also.

[Speaker 2]

OK, super interesting. And so I was wondering about strategic projects. So right now, let's say in terms of governance, the trade union cannot really say their opinion about strategic projects. So after that, for the strategic project, if we take example of mining here, it's like 27 months and the environmental impact is outside of the 27 months. But if I understand well, so the social aspect of it is

within the 27 months. So I heard a lot about public acceptance, public perception. But here, if I say more about like workers or like even trade unions, because it's related. Do you feel that the fact that it's included in the 27 months, it could have some issues with the actual procedure for the strategic projects?

[Speaker 1]

Yeah, but I think this question of timeline is more about the permitting aspect, no?

[Speaker 2]

Yes. So, yes, it's 27 months.

[Speaker 1]

Yeah. So, yeah. But yeah, for the permitting aspect, I'm not sure that the social aspects are covered by the permitting procedure.

It's more about the environmental aspects. And also, of course, the local acceptance, we would say. But for us, we are working a lot on those aspects because we think that this is also linked to the other thing I said.

If you are sure that a new mining operation in Europe will not pollute your rivers, will create good quality jobs, will maybe benefit to the local communities and not to just one big multinational companies, then maybe it will help when it comes to social acceptance. But if you just copy paste a very old-fashioned model, of course, people do not want it because they know that it will just put money in the pockets of the usual ones. It will probably kill birds and fishes all around, also maybe kill some local activities.

And so people do not want them also because they do not feel respected or heard. And I think this is also something which is very much important. This is, again, not just a tick-boxing exercise to say, OK, we've discussed with the local communities, the people, they know and they also maybe like to see more economic activities in the region if this is done in the fair way and not as it was done in the past.

And this is true for Europe and this is more true for what we are doing outside of Europe. This is clear that this could lead to also green colonialism and this is something that has to be a critical role. It is an opportunity to not act this way.

We have there, as I said, a good narrative to ensure that this will not be done that same way. But we will have to do also our advocacy work, us, the NGOs, civil society, local communities, to ensure that this is respected at the end.

[Speaker 2]

It's super interesting. And you also mentioned multiple times the word skills. So I have the impression that skills are really important to meet the success of, let's say, this strategy in general or even in general.

So right now, like, is there any issues related with a lack of skills or lack of, let's say, envy of people to work in that kind of jobs? And also, like, what would be your recommendation, I would say, to, let's say, face that specific issues relating to skills and training?

[Speaker 1]

Apparently, this is a major problem. And of course, also we hear that, but this is true for all the industrial sectors. I would say this is not very attractive.

But maybe also because there is not enough attractive, good working condition. Usually this is a good paid job. But when it comes to work-life balance, etc., sometimes it's more difficult. I can give you the example of the mine in Kiruna in the north of Sweden. There, they have a very high salary. So, I mean, when it comes to pay, it's very good, even more than the other job that you can find there, which is not that much because this is just mining and maybe some administrative work at the schools, etc.

But they have also to recruit people from other countries because nobody wants to go there and work in the north of Sweden seven days continuously, etc. So, but maybe Sweden is not a good example because usually the working conditions are very good. But I mean, yeah, sometimes the question of retroactivity is absolutely linked to the question of working condition.

And when it comes to skills, what we are calling for is also to have this, I would say, framework of reskilling and upskilling workers because we have also a huge, I would say, job pool in which we have seen a declining possibilities of jobs. So maybe there we can also have a good plan to reskill and upskill workers. But again, this will not happen on its own.

Then you have to have very concrete industrial and social regional policies that will put all these pieces of the together. And also, for example, giving the workers a right to training could help because for the moment we say, oh, we do not have enough skills, etc. But yeah, of course, nobody has the time to follow a new training.

But if you give to each worker in Europe the right to training, maybe then it will also help to tackle these skill strategies.

[Speaker 2]

It's really great. And I was also wondering, so here you talked about good quality job and generally what I hear is, for instance, let's say we have a new mining project in France. So generally they want to involve the community in it.

So let's say I'm someone from the community and I don't have any knowledge about mining in general. So I was wondering, I guess it's super hard to train someone for a very good quality job in, I don't know, five years at least. So I was wondering if when you propose jobs for local community, would you define it as a good quality job or is just like a minor job?

And also at the end, do you believe that the CRMA will have a positive impact on job creation?

[Speaker 1]

Yeah. So when I am talking about good quality jobs, it's what we demand. We want jobs, but we want them as good quality jobs. So I'm not saying that the jobs in mining industry are good quality jobs.

[Speaker 2]

No, no, no. It's a question.

[Speaker 1]

Yeah, yeah. But yeah, what you said about the local, it's also what we see in Hungary or in the north of Sweden. At the end, the local communities are not involved and then we hire people coming from abroad.

So again, I would say it's a lack of comprehensive regional policies. And when you come just with one economical project result, having the entire community, regional policies, jobs policies, but also employment and skills, high school, but even the training possibilities around, it will not work. Because people, as you said, you cannot just go knock at the door and say, I would like to work in your mine without any skills, et cetera.

So this is also the work of the member state to ensure that at the regional level, there is an entire ecosystem, but not economic ecosystem, all the social ecosystem as well, I would say. And for your last question, is this going to deliver job creation? I think so.

But if it's also followed by concrete, maybe concrete national policies, et cetera. But I would say so because we are talking about mining. This will probably be



more difficult there because we know it's very difficult to have the social acceptance, et cetera.

But when it comes to recycling, processing, et cetera, maybe it will work better and put back in Europe some of the things we've done elsewhere, maybe not that in the cleanest way.

[Speaker 2]

Perfect. It's because I was wondering, for instance, if you implement projects like recycling, processing or mining, it can impact other kind of economy. And so at the end, lose your job.

So for example, agricultural will be lost. And so in terms of absolute, you create, but you...

[Speaker 1]

Yeah, maybe. But in a way, I think this could also, the idea is also to reindustrialize Europe. And so, I mean, this is also because we know we cannot be a continent just of services.

We have also to develop a strategic autonomy when it comes to the project we use every day. And we also need people with jobs to finance social security, et cetera. So I think this is also part of the plan.

And we hope so. Because we also know that now in these big companies, even in mining now, it's more and more machinery than people. And maybe this is good because then people are not exposed to this sometimes very toxic environment.

But on the other hand, this is less and less people working. So, yeah, it's difficult to answer because each operation, each plant is different from another one. And each country is very different because of its industrial history and also because of their concrete idea about the future, I would say.

So, but yeah. For example, in Spain, they have good, it's quite interesting what's happening there because they have discussed, I don't remember the name, but like a warm material strategy for Spain, which is trying to link all the important aspects, skills, training, but also transitioning jobs. So, for example, workers who were employed in the coal, not especially in the coal mine, but in coal power plants to this. So they have a plan. And I think this is sometimes what we are missing, a plan.

[Speaker 2]

And super interesting. And you also talked quickly here about industrialization of the EU. And here is just maybe a quick question I was asking myself is about like strategic projects.

So you can do it in Europe or outside Europe. And so at the end, let's say if I don't have like, at the end, if I am a company, my goal is to make profits first. And here, high cost of energy, more restricted laws.

So at the end, I will go abroad. And I was wondering if you see it as a problem that company can go abroad with this condition for industrialization of Europe?

[Speaker 1]

Yeah, no, absolutely. Absolutely. I think you have already answered the question. This is also, I think this part of the Critical Raw Materials Act could be seen as a bit schizophrenic because they say we need strategic autonomy. We need to be independent when it comes to raw materials. And then they will support projects outside of Europe saying that they would like to make this win-win partnership.

So developing processing activities in the countries, develop the economy in the country, which is absolutely good. And we are happy that they put this this way. But on the other hand, this is a bit contradictory to what they proposed at first.

Or I mean, the arguments they used. So yeah, it's a bit weird. And we also fully, I would say, assess what you said about the question of industries in Europe.

This is why we are, as representing workers in industry, we have launched some campaigns on this question. We know that in some countries this is back on the table. But yeah, true.

We know that the question of energy is problematic. But not only energy, even for these raw materials, you also need these raw materials in your ground. So this is very much complicated.

So honestly, this is not industrial saying that. But personally, I'm wondering if it will deliver that much this Critical Raw Materials Act. I mean, of course, we need to try.

And we need to try and use the opportunity to also work on this question of environment and social aspect. But yeah, it's difficult now to assess if it will deliver. I mean, the benchmark, et cetera, they proposed.

Is this going to really deliver? Yeah, I mean, a lot of energy is putting on this question. So maybe it will help. I don't know.

[Speaker 2]

Okay, super interesting. And you also talked about the case with Hungary. So a challenge maybe with the implementation will be related with member states.

That's for instance, if I am a recycling plant, I can go to Hungary and there is a condition that is different than, for example, Belgium, I would say like that. And it can be a risk for workers in that sense or risk related with social in general. In terms of, let's say, the fact that member states also can manage the implementation and that companies can go there.

So I was wondering if you also foresee maybe other risks more than challenges related to this policy?

[Speaker 1]

Yeah, for us, we are focused on those aspects. I already mentioned of the follow-up and the real implementation. Yeah, nothing really to add at this point on those questions. But you were good. So maybe I have not heard every word of your question. Because sometimes you are like you cut, but I think I get it.

[Speaker 2]

Okay. Yes. So if you can not hear me at a certain point, don't hesitate to interrupt me.

Yes. Also when I did, let's say, the kind of when I participate to the events, for example, Judith mentioned the importance to have like successful business case for the CRMA strategy. And business case is a word that came back very often during that meeting. And I was wondering why it's really important to have those successful business case.

[Speaker 1]

I think everyone is talking about that because if you have successful business case, then the investors will be reassured. They will see that this is working, that they can have some money if they put their money there. I think this is just because of that.

The problem now is that we do not have enough investors when it comes to this project. I mean, we, Europe, do not have enough investors. They know that, I would say, opening a new mine will take years.

They even don't know if they will receive the permit at the end. They do not know if they will face some local opposition. So they do not want to invest.

So I think this is why they are talking about business case. Same for recycling and circular economy. For the moment, for some materials, it's too expensive.

So we do not see any big companies creating a lot of jobs or creating some added value of what they can do. So nobody is doing it. And we are accumulating electronic waste more and more without being able to maybe have this closing the loop and having more circular.

And we think that maybe if we have more business case showing that this is working, that will attract also other people to do so. And maybe business case can also be, this could be also sometimes the role of the public authorities to maybe invest in, of course, if it's well prepared, invest in this kind of operation that will work. Of course, taking also the profit out of it. But to show that sometimes we have to innovate and being supported to see that this is working.

[Speaker 2]

Okay, super interesting. And I had maybe two quick last questions. The first one will be in terms of monitoring.

So with what you said in Hungary, for instance, like how the EU, let's say, can ensure that you have like good quality, good health, safety in general in terms of monitoring process, is it the role of trade union? Like how can like the EU in general ensure or for related to critical raw materials that you have, that's exactly in terms of implementation, that everything happens well in terms of monitoring very quickly.

[Speaker 1]

Yeah, no, that's super important because all our point is about implementation. So of course, monitoring will be key. And for that, we will need to have reporting from companies, independent assessment and audit committee showing that this is working well.

And yeah, so there is for the moment some proposal on the table, such as, as I said, the due diligence thing, but also the corporate, it's a CSDDD on the reporting as well, which is super important. And of course, that will also, I think that should not be the only role of the trade union and civil society to monitor, not at all. We can help when we hear that there is some problems, but this is not a work to assess that everything is done in the fairest way.

But this is true that when, if you have also trade union participation at the local level and the company level, that will help to monitor that this is going in the right direction. But we would like to also see the European Commission taking

some initiative on that to ensure that what they have supported with their famous strategic project, they monitor that what the people have put on the paper on day one about their plan is respected. Probably the board will do this work and we hope it will be done. Absolutely. This is key.

[Speaker 2]

Okay, perfect. And my last question was about, so I read a joint statement from Industrial that was talking about EU Raw Materials Act. So the name, instead of Critical Raw Materials Act, EU Raw Materials Act. It hasn't been done, I guess, because right now, it's still a CRMA. So what will be the impact of it in your opinion?

[Speaker 1]

Yeah, no, we, that's true. This is a question we didn't discuss yet. But the thing is that you remember at the beginning of the discussion, I said that we are working in the sectoral societal committee with employers' organizations.

And there we are working with UEPG, which is Aggregate Europe. So the ones who are producing aggregates. And this is mainly coming from there.

They say, okay, you have identified some critical raw materials, but what about the other? Which are also absolutely crucial for the development of European industries. They have concrete examples that I do not have them in mind.

But this means that sometimes if you just put the focus on the raw materials that are currently critical, this may put a lot of pressure on the other one. And they explained to us, for example, the strategic project will be put on the top of the list to be, to receive the permit, meaning that the other will, it will take more time. And then maybe in two years, we will see a new raw material which was not critical at all, but which is now critical because nothing has been produced in Europe anymore because of the other one.

So this is true that this is also quite problematic that we only focus on specific ones, which are, of course, the methodology of Europe is clear. And I mean, this is also the aim of this act, to focus on some raw materials needed for the transition. But this, we think that the repercussion of this could lead to new problems.

So that's why we saw, we need also to assess all the raw materials maybe in another legislation, regulation, I don't know what, about that. But yeah, when we discuss this with the Commission, they always say, yeah, but that was not

our mandate. Our mandate was to focus only on the list with a very concrete methodology, etc.

So they just proposed something on that, but that could have like negative effect on others.

[Speaker 2]

Perfect. Thank you very much. Are there maybe other things or insight that you think interesting and that we didn't discuss during this interview?

[Speaker 1]

No, listen, I think we covered quite a lot of things. So that should be OK. If you want me to send you some documents, I can, I can. We have, I think it was already a long time ago, but we had a position on the, you saw our position on raw materials, on the Critical Raw Materials Act, etc.

[Speaker 2]

I saw like the three pages joint statement on the Critical Raw Materials Act.

[Speaker 1]

No, no, this one is not. Maybe I can send you, we had a position on the action plan. So it was already three or four years ago. But then we had also a Green Deal industrial plan position in which we assessed the Critical Raw Materials Act, the proposal from the Commission. So I can send it to you. And I said, I can send you the article we will publish on the US-EU agreement. And if I have something else in mind, I can forward it to you. And what is your timing?

[Speaker 2]

For the thesis of the project. So I will, I will do it in end of August.

[Speaker 1]

1. But you, you are in the last year of your master.

[Speaker 2]

It's my last year of master. Yes.

[Speaker 1]

1. So, science, science, politics, yeah.

[Speaker 2]

Not really. I'm like a double master degree in business engineering and international management. But that's a subject that I really like with different

aspects.

But also like the resources will be super useful and also like the new document that you will publish seems very interesting. So, of course, don't hesitate if you have any resources to send it to me. Or so if you have any contacts in mind or person with very good insight, don't hesitate to mention their name.

[Speaker 1]

OK.

[Speaker 2]

It will be super useful.

[Speaker 1]

You already met, I mean, the other stakeholders such as Euromines, etc.?

[Speaker 2]

I met Euromines, Eurometaux not yet, for instance. But if you have someone in mind that have very good knowledge and it can be with work or social aspects, really a lot, just don't hesitate and it will be super useful.

[Speaker 1]

And of course, when you are ready, do not forget to send it to me. It will be very helpful too. And I mean, it's always interesting. Even there is some other approaches, it's always interesting for me to see. when ready, do not forget to send it to me.

[Speaker 2]

Perfect. I will not forget it. P21, thank you very much for everything. Super useful. Thank you very much, P21. Have a nice day.

## Interview with P22

[Speaker 1]= Gauthier

[Speaker 2]= P22

[Speaker 2]

Yes. Thank you. So just before, let's say, asking you to introduce yourself, I would like to ask you I will give you a little bit more context about this meeting.

And so in fact, I am a student in the final year of a double master degree at UCL Louvain. And I'm doing my thesis about the analysis of the, let's say, EU strategy for the critical raw materials as defined in the CRMA, but with a focus more on the environmental and social aspect of it. So a thing that motivates me or so to choose that subject was when I read the first, let's say, proposal and the first draft of this legislation, I didn't see a lot of elements related with indigenous rights and also with social in general.

That's why it's such a subject. And that's also why I really wanted to do that meeting and interview with you. I can also show you that everything that will be said during this interview will be like anonymous, confidential.

And if also, can I just maybe record the voice like that, I can listen it later on and just I can focus on you.

[Speaker 1]

Yes, of course. No problem for me. I do it myself. You know, I am a scientist. I'm in the social sciences research as well and I record my interviews because it's hell if you don't.

[Speaker 2]

Yes. Yes. It's harder. It's harder. And what's your research for now?

[Speaker 1]

I have different, different lines of research, but it's all about renewable technologies and etc. Gauthier, you, you, I lost you a bit when you told me what was your background. You are in the last year of and I lost you a bit.

[Speaker 2]

So I am in my final year of double master degree in business engineering and then also international management. So it's quite far from renewable energy, energy transition. But I was very interested by that subject. So, maybe, can I ask you to introduce yourself and explain me maybe your involvement with indigenous population or so like critical raw materials in general?

[Speaker 1]

Yes. But before, I would like to ask you also, how did you come to me? You mentioned Payal. Have you been working with people? Tell me, how did you reach us?

[Speaker 2]



Yes. So on the spot, it's maybe a little bit harder for with the name. But so I, I, I saw you in a lot of different articles, I also saw the name of, I think it's Galina. Galina. I saw also the name that you mentioned, Payal. Payal.

And when I discussed with them very quickly by message, they also advised me to contact you because they felt that you knew a lot of things about the subject. And that's why also I sent you a message. So for the articles and also because it was advised to me by other person that were so knowledgeable about the subject. And so that's why I came to you.

[Speaker 1]

Yeah. Nice. And where are you from?

[Speaker 2]

I'm from Belgium. And you?

[Speaker 1]

You're in Belgium as well. I think you mentioned that in your email that I'm totally crazy in my head. Where exactly?

[Speaker 2]

Near Charleroi.

[Speaker 1]

Ah nice, I've been in Charleroi. It's a nice place, a bit industrial, but it's still nice. Wallonia, it's beautiful. I like it very much. It's more beautiful than that Flanders, but don't tell the Flanders.

[Speaker 2]

I will not tell them.

[Speaker 1]

I live very close to Ghent. It's about eight kilometers from Ghent. But it's a really nice small town with lots of trees and bicycle ways along the water. I have very nice walks in neighborhood. It's just the type of population which is very close to the city, but far enough to just keep it quiet.

[Speaker 2]

It's also better because like in big cities like Brussels, I guess it's a lot of noises and a lot of people, always a rush.

[Speaker 1]

Yeah, I think it depends on the people also, because many people, I have a friend who lives in Brussels who wouldn't live for 4,000 years here because she wants that stamina, the action, the dynamics, the sound, the movement, everything. But I find Brussels beautiful, but I like to live outside.

[Speaker 2]

Yeah, I can understand. It's the same for me. I'm living more in the countryside of it.

[Speaker 1]

I have to apologize to begin with because of our failed former meetings as well. The day we got in, I actually was getting our connection from Brussels, and I don't know if you saw me because I got a couple of times, but I was rejected every time. And at the end, the connection couldn't be made. I'm so sorry.

[Speaker 2]

No, no, I didn't see you today. But at the end, I mean, we are doing the meeting right now, so it's totally fine for me. Thank you for your time and for your willingness to help. And don't worry about the past meetings.

[Speaker 1]

Okay Now, let's let you with the questions. If you would be so kind to repeat the first question, Gauthier.

[Speaker 2]

Yes, for sure. Could you maybe briefly introduce yourself and explain me your involvement with critical raw materials and also maybe with the indigenous rights in general?

[Speaker 1]

Yes, I am a policy advisor for the Securing Indigenous Rights in the Green Economy Coalition, which, as you know, probably you have checked, has five plus one members. And the objective is very simple, but absolutely essential as difficult. And it is uplifting the rights of indigenous peoples globally.

I am an indigenous people's dissent myself, and I am very close to the topic on the personal, on the ethical, on the ideal, and on the laboral fields. So I combine everything into uplifting and into making efforts on bringing elements together to make sure we do all efforts to uplift indigenous people's rights. Now, in this frame, we have started working on different fields.

And in Europe, particularly, we have been following the batteries regulation first. Then the critical raw materials, but before, of course, in time, the corporate sustainability due diligence directive. And then the speedy accelerated critical raw materials, which just came after the CSDDD, but it was just before already ready. You know, it's very special because yesterday, the CRMA – Is it okay if I talk with short nominations?

[Speaker 2]

Oh, yeah, yeah, yeah. Don't worry about that.

[Speaker 1]

The CRMA, the critical raw materials, came into force yesterday. I don't know if you know it. And today, the CSDDD was approved by the European Council. So they both are quite related. They should complement each other. At least the CRMA refers to the CSDDD as an instrument.

And in many moments of the conversation, they said, no, no, no, we are going to take care about rights and indigenous people's rights via the CSDDD. But then in the CSDDD, they say, oh, it's general, it's not only mining, so we have to keep it broad, and et cetera, et cetera. So they have been throwing the ball from one side to the other. But at the end, they are both approved, and they are already in life.

[Speaker 2]

It's super interesting, and I will have a lot of questions also related to it. But maybe first, just to begin with a more general question, I'm curious to know, like, to what extent, in your opinion, does the actual outcome of the CRMA align with its, let's say, intended strategic goals? And maybe, are you satisfied with it?

[Speaker 1]

It aligns quite much to its goals, and I am totally not satisfied with it. First, it aligns with its goals, because the goal, I will test you, what is the goal of the Critical Raw Materials Act, according to you?

[Speaker 2]

Yes, so for me, first, I think that the CRMA is more like economic and industrial policy, and the goal is really to reduce the dependency over, like, other third countries, like, for instance, China. China came back a lot, and also to securing, really, the supply chain related with Critical Raw Materials. And that's why there is also, like, four main benchmarks, I would say, related with the different steps

of the value chain. So I think it's mainly about an industrial policy at first, that tries to implement some environmental aspect and also social aspect related to it, but without being too detailed about it.

[Speaker 1]

Yeah. Yes. But if you could summarize the goal in one line?

[Speaker 2]

I would say it's really to secure its supply chain and to reduce the risk related with Critical Raw Materials for the industry in the EU.

[Speaker 1]

Yes. And that's why I say the Critical Raw Materials Act, it's quite aligned with that objective. But then, the second question was if I was satisfied, and if I could say, not only me, but Indigenous Peoples all over the world, are they satisfied or are they served with this regulation?

Or as part of the supply chain, are they protected with this new legislation? And the answer is no. You know that Indigenous Peoples, the energy transition minerals, metals and minerals are at least 54% in or on Indigenous Peoples' lands.

That's, of course, conservative because they say 70% is, well, the additional 20, 15 to 20% is in the lands of local communities, which most of them are actually Indigenous Peoples, but that are not recognized as such. So if you take all into account, about 60 to 70% of all energy transition minerals, of all the materials which are going to be used for mobiles, autos, windmills, whatever, and also the nuclear and the war equipment, etc., everything is going to come, probabilistically, 50 to 70% from Indigenous Peoples' lands. Then you would say, of course, these rights holders have to be at the driving seat.

We cannot do anything and their rights and how we take these materials from their grounds should be ensured. This is not the case because the Critical Raw Materials Act, although we have advocated for it and actually the European Parliament has proposed to include free, prior and informed consent as enumerated by the United Nations Declaration on the Rights of Indigenous Peoples, the UNDRIP, it's not there. They took it out.

So actually, they say with projects that want to realize a project, to begin a development, they have to consult and make a plan, especially if local affected communities are involved, etc., they have to consult them. But there is no stipulation saying you have to engage with Indigenous Peoples and ensure the

free, prior and informed consent, which is the basic minimum, because the free, prior and informed consent ensures participation, ensures decision, and it's not there. They, of course, have left some avenues that we could use still because they have references to the OECD guidelines and the United Nations guiding principles, etc., and the UNDRIP, of course, but it's a missed opportunity, it's a weak reference. It could have been stronger, it should have been stronger, and as I said many times, it should have been stronger in the interest of Indigenous Peoples who are now at this very moment fighting on the ground different projects related to the energy transition, getting arrested, many murdered, because every month we receive the news of a leader of us being killed, and that's absolutely touching. We are talking about mothers, fathers, brothers, the community, the level of fight and stress in the community, so it's not something about the future and what is going to happen when this comes into light and when it starts rolling, no, no, no, it's already happening. So, it's a missed opportunity to ensure the rights of these Peoples who are environmental defenders and actually are defending keeping the ecosystems running, because their lands, they are good stewards of their lands, of course, they live off their lands, but next to living to the lands, normally they keep the ecosystems healthy.

80% of the biodiversity is in Indigenous Peoples' territory, the remaining biodiversity, and so it doesn't serve Indigenous Peoples, but also it does not serve the core objective of the European Union, because what is going to happen is that when the projects start pushing, just like we saw in Panama, or in Guatemala, or even in Sweden, if the projects are going to roll out, people are going to resist, it's going to be very painful, many lives are going to be lost, but also the projects are not going to advance, and Europe cannot afford to lose time.

So, it's a double risk, and also for the companies, it's very difficult to get money to finance mining projects to begin with, that's all the story is about, so now, once they have the money, and the investors, and the shareholders, if the projects don't roll out as they should in time, and if they have these types of problems, which are quite risky in terms of reputational risks, also business risks, so everybody is going to lose, actually, and everybody is already kind of losing, but because the acceleration that is projected is getting so close and every time stronger, the problems this acceleration brings are also increasing enormously on the ground, so it's a lose-lose-lose, not a win-win-win.

[Speaker 2]

It's really sad, and I was also maybe wondering, so here we talked about a FPIC in general, free, free-or, and informed consent, and also very quickly about the United Nations Declaration on the Rights of Indigenous People, and I think I saw a mention of the United Nations Declaration in the Act, not a mention from the FPIC, I was wondering, in fact, if there is the mention of the United Nations, why is it an issue to not put a FPIC? Because the United Nations in general includes it, no?

[Speaker 1]

Yeah.

[Speaker 2]

So that was a question I was wondering, because I'm not really familiar with the subject, so why really is it an issue to not put FPIC if there is already a mention of the United Nations Declaration that, let's say, includes it?

[Speaker 1]

Because the United Nations Declaration and FPIC under the United Nations Declaration is a soft law, and if they put FPIC in the CRMA, it's a step to bringing into hard law, and they don't want that. And they specifically don't want to recognize FPIC because certain member states, \* Confidential\* have Indigenous Peoples, and they have lobbied against it. It's not a coincidence that it's not there.

It's because they have pushed back, and they don't want to accept. They accept the free prior and informed, but the consent not, because the consent, according to them, is a way of giving Indigenous Peoples the power to say no, and they say if Indigenous Peoples are going to be given the possibility of saying no, they are going to say no, which is going to be true in many cases, but in many cases not. So that's one of the biggest mistaken narratives that is going around, by which Indigenous Peoples, and not only Indigenous Peoples, but also local affected communities, are denied of their rights to say no, and to react.

[Speaker 2]

Okay, it's super interesting. So, in fact, by putting FPIC into the legislation, it would have made it more like hard law, I mean, more like hard law instead of soft law, and the company, when they will do the project, would have to respect it more, right? If I understood it.

[Speaker 1]

They cannot say, oh, we didn't know, or it's not written there. It's not given to interpretation. No, as it is, it's given to interpretation.

[Speaker 2]

It's super interesting, and by also talking about consultation and engagement with Indigenous Peoples, I was wondering how would you evaluate, in general, the current level of consultation with Indigenous communities, when they are implementing projects, it can be mining, processing, or like around the value chain, and do you think it's enough, the level of consultation with Indigenous communities, and that maybe the CRMA could improve the situation?

[Speaker 1]

Yeah, before we go to that, I'm going just to give an important note here. The information I shared about \*Confidential\* opposing the process, that's confidential. We don't have documents, but that should not be included, because we know that from the internal conversations, and I can share that with you so you know, but we cannot publish it.

We don't have evidence for that, and that could bring to troubles. Second, consultation. Consultation is a spectrum.

You have some places, like in Canada, where consultation and involvement of Indigenous Peoples in decision-making is not perfect, but better than in other areas of the world. But if you take Canada, within Canada, that's what is happening. But if you take Canada and Canadian industries, Canadian mining companies, which are, together with Australia, about 70% of the mining companies globally, outside, they just forget their ethical code.

They don't respect consultation, they don't respect decision-making, and they don't respect, or they don't do, the same as they do in their own country, which is really a pity. Many times, actually, they say, but the Canadians are doing very well, and yes, they are doing well on their ground, but as soon as they go over their limits, then they are other, they transform their ethical principles. And it's a range, stakeholder engagement is a range, going from zero to good, like in the Canadian case, but mostly, most of the time, is inadequate, or inexistent, and very corrupted.

In many cases, Indigenous Peoples are pushed to get some kind of consent, when it's required. When there are 12 communities, that's a very typical approach, when there are 12 communities in a watershed, they approach one, two, or three communities, they buy them with money, they buy their leaders, they propose nice things, and they get one approval, or two, and then they say,

yeah, we have license to operate, we have consulted Indigenous Peoples, and they approve us, and there are 12 communities. And so, they cause problems in between the communities, to begin with, and then the other communities, the majority of the communities oppose, and they don't have a say, not in defining what is going to happen, if the project goes or not, how the project is going to go, and how the benefit is going to be shared, nothing.

That's a very, very typical approach. Other approaches in stakeholder engagement with Indigenous Peoples, it's very poor, sometimes they just bring food, and they let them come for an information evening, where they give a free lunch, and this information evening is counted as a consultation and consent event, so it's very corrupted, very much corrupted. In some cases, there is even violence, they abduct families of the leaders, and they condition their acceptance and participation with the security and life of their families.

I remember a case in Bolivia, for example, it was a project, it was not mining, but a certain company wanted to do a development, and the leaders, women, were opposing there, there was a very big social movement, and the brother-in-law and the father-in-law of one of the biggest leaders just disappeared overnight, and then she got the message that if she wanted them to still keep alive, she should stop moving, and at the end everything went well, because they found them before, but this type of things occurred the whole time. So, consultation, participation, it's very nice on paper, but in practice, in many places of the world, it's not that bright, or they come with environmental impact assessments of 600 pages, they give them to the people, very technical English mostly, even if it was in English, even if it was in their language, I don't think you would read or understand an environmental impact assessment of 600 pages in five days and react.

So, when they don't react, because of lack of capacity, then it's taken as, yeah, they were given the opportunity, they didn't take it, so it's not goodwill from the Indigenous peoples, and like that, it's not really nice. Stakeholder engagement is very poor, that's why we are advocating for it. We think in decision-making it's even worse, that's a consultation, that's the FPIC part, the C part, the consent, it's even less decision-making. It doesn't matter if they say yes or no, they just go on with the projects. In Sweden, the Sami say no, the government say yes, the projects go on.

[Speaker 2]

It's really interesting, because generally, when we look at news, at least in Belgium, it's more about local communities, instead of Indigenous people in



general, and I have the impression it's less known, at least here in the EU, it's maybe different in countries.

[Speaker 1]

Just give me one second, the door is ringing.

[Speaker 2]

Just one second.

[Speaker 2]

Okay, perfect. So, so, so, so, yes. So, here I also understand that maybe the level of capacity and knowledge related with those projects and also with environmental impact assessments could be an issue.

So, about that, and I was also wondering, maybe in the post project part, so here's, I see that there is issues, let's say, to, to get like consent and also to, to really consult with indigenous communities. And I was wondering, even after, like in terms of post project monitoring, if once a project is launched, when the project is done, is there were still like, preoccupating about like indigenous people or if it was, okay, we are done, we have the authorization, we don't care anymore.

[Speaker 1]

No, that's not like that. I mean, it shouldn't be like that. Because consent is not one point.

Consent is continuous. It's like a marriage. When you agree to marry someone, it's under certain conditions, under the conditions that you're going to be the nice guy, you're going to wash the dishes, you're going to take care of the children, you're going to do this and you're going to do that.

You're not going to get drunk and these type of things. But of course, if you fail to do this, you're going to reconsider and you're, if you, if you, if you fail, you're going to be given an opportunity. Please forgive me.

Okay, let's try again. But if you keep on doing that, you're going to divorce. FPIC is just like that.

FPIC is given, FPIC is monitored, and I mean, the consent is given, the consent is monitored, the conditions under which the consent is was given is monitored. And then if the elements that decided that consent change, the consent is going to be taken away. But not just like that.

[Speaker 2]

Okay, really interesting. And I was also wondering, so I saw some terms like overriding public interest, or like, I saw another time, it was meaningful, I think, consultation, and I saw one or two terms like that. And I was wondering, if you like, yes, if, what do you think about those terms?

Do you think that it needs more definition? Or like, Also so maybe do you see other terms that can be on issues, except like, overriding public interest, meaningful consultation? Like, what do you think about that?

[Speaker 1]

Yeah, first of all, in the chat, I have placed another link because our meeting is going to stop in six minutes. But if it stops, you just jump into the next link, if you can copy the link in the chat.

[Speaker 2]

Yes, it is done. Perfect.

[Speaker 1]

Very good. Then the public overriding interest is really a joke. It doesn't say anything.

But if we think we are right, and it's in our interest, legitimate interest of the public, but here public should be understood as government, we do it. Even if Indigenous Peoples don't want to, even if non-Indigenous Peoples don't want to, even if nobody wants to, if we decide, we do it because it's for the good of the world. But actually, here, there is a big flaw because it's public interest.

And who is public? It's not the government. It's actually the population.

And it's actually, it should be a democratic tool, but it's not understood like that. And that's a very bad element of an undemocratic and the United Nations has, and many, many organizations have, have advised not to, strongly not to fall into the trap of using elements such as overriding public interest, not to, or as an excuse to, not to respect Indigenous Peoples' rights.

[Speaker 2]

Okay.

[Speaker 1]

Now, stakeholder involvement, meaningful stakeholder involvement. I don't know if you have seen the guidelines that we have prepared with the European Raw Material Coalition. There we have specified, kind of, what should the

European Union understand by meaningful engagement, meaning when it comes to Indigenous Peoples.

Do you have the document?

[Speaker 2]

I think I have read it. It was with a certification scheme or so, and a lot of different elements, if I remember well.

[Speaker 1]

Yeah. And there you have a demand to begin with because, I'm going to give you the link. Here, that, there you have demand, there you have certification schemes. What do you think about certification schemes from the business perspective?

[Speaker 2]

I mean, my following question was also about certification scheme, but, so, at first, before this work, about, like, in general, I thought that, I mean, the certification scheme will change the world, and that it was a solution to every issue. But after that, I understood that there are a lot of flaws related to that. But I had more the perspective related to the environmental part of it, and also, maybe, yeah, environmental part of it.

But I was also wondering, maybe, what do you think about the certification scheme, maybe, to, like, ensure, like, yes, as a certification, I would say, of high social standard and consideration or so for indigenous people. So, once you have the project, because I feel that in the CRMA, there is a lot of elements that are related to certification scheme, and that propose them as ideal solution.

[Speaker 1]

Yeah, and that's a problem, because it's broadly demonstrated that certification schemes could be, if they are good, and they are not good. If they are good, they could be a nice instrument to make companies' life easy. They have, I also work with different types of standards and certifications, and et cetera, et cetera.

But what these schemes do is to, for non-specialists, make it easy to follow up, check the box. We are doing this check, we are doing this check, we are doing this check. So, we are good, and we have an A, or a B, or a C, or an A plus, or we have a D, and we have to repeat everything again.

So, it's just like evaluation system at school. You have a framework, you have your evaluation system, and that's useful, because then you have your check box. The problem is that these schemes are an instrument.

Number one, they cannot replace a legal binding work, a legal binding framework, I mean, where they say, we need to respect indigenous people's rights according to this, and this, and this principles. Okay? So, and it's obligatory.

You cannot escape that. It's not a choice, a nice to do. You have to do.

Okay? Schemes don't do that. Schemes' work is other.

Schemes help companies to know if they are fulfilling what the framework asks. But if you don't have the framework to begin with, then the schemes can choose. And there is one scheme, and one scheme only, the IRMA, the IRMA, that includes indigenous peoples, that has a democratic governance system, etc., etc. Let's not get into details. But only that scheme is the one including indigenous peoples. All the rest, it's a wishful thing.

And if you see Oxfam, have you seen the Oxfam's report on FPIC?

[Speaker 2]

I haven't seen the report of Oxfam for FPIC. Yes. I had the opportunity so quickly to talk with someone from IRMA about certification scheme and to understand better.

So, the issues with independent auditing, for instance, or possibility, like in terms of capacities or so. But yes, it was more about like environmental point of view. But here, I understand that even for the social part of it, like it's better to have like regulation.

And after that...

[Speaker 2]

Can you hear me?

[Speaker 1]

Yes. Perfect.

[Speaker 2]

Perfect. So, here I understand that it's better to have like, let's say, regular, like regulatory binding tools and more like certification scheme as a support, even for the social dimension of it, if I understood correctly. And yes, I was also

wondering about like, in general, like, what's the perception of indigenous people of it in terms of maybe energy transition in general, just to understand like, what they can expect from, for example, a project, a mining project or processing project, like what they are, what they ask in terms of maybe compensation or maybe, because you mentioned at first, in the beginning of the meeting, that there was, I think, 70%, 60 to 70% of all the world critical raw materials that are from areas that touch, I would say, the indigenous people. So, I was really wondering, like, what they expect, maybe, in terms of compensation, or how they see themselves contribute to the energy transition and to critical raw materials in general.

[Speaker 1]

To begin with, the climate change and energy transition, it's seen by indigenous peoples as urgent. They support the energy transition because they understand the system has to change. And they are the least that created the problems.

And they are already facing the consequences of these problems. The industrialization, etc., etc., came by rich countries and rich sectors in each country. And the consequences are felt by the poorest, including indigenous peoples, mostly indigenous peoples.

They understand the need for the transition. And that's another narrative that it's used. They see indigenous peoples as blocking development, which is not true.

Or they are only, in many cases, defending their livelihoods and their ecosystems, which is also very good for everybody. Because if, for example, the rainy forest in Brazil disappears, which is happening, and because of mining, and because of agriculture, intensive industrial agriculture, I mean, we all lose. But okay, they are the ones there defending their territories.

What you talk about is benefit sharing. And with benefit sharing, the principle of, there are many positions, as many positions as positions towards mining. Some people, some communities will accept, some communities will not accept.

And benefit sharing is a very broad range of things that can be going from work, jobs, to supplying materials, equipments, or services, to dividends in equities. It's very broad, the benefit sharing. The benefit sharing is an important point, but the most important guiding principle is that it should be self-determined by each community.

And there is not a blueprint. Many communities will decide differently. To begin with, they will decide yes or no for a project.

And second, yes or no how this project. Third, yes or no how the benefits of this project should be shared. But of course, in principle, this time it should not be like it has been until now, and like it has in the first colonization, intensive colonization period.

Just go, take whatever you want, destroy the people, destroy the environment, and just don't give anything. Now it's a bit more civilized, but still we are talking about a green colonialism, and the benefit sharing is very, it's a complex process. It should happen, and it should follow the self-determined priorities of the communities.

[Speaker 2]

It's very interesting. And I was also maybe wondering, related with strategic partnership, so here in Europe, there are, to my knowledge, less, for example, indigenous communities compared to, for example, South American, let's say, continent and countries in general. So I was wondering what could be the impact of the EU through strategic partnership maybe to to change something about that, or like, yes, about it, like, how do you see the strategic partnership related with indigenous communities in general? I don't know if it impacts them, and yeah.

[Speaker 1]

Strategic partnerships, it's a very difficult, complex thing now. You know, if we talk about the strategic partnerships in sensu stricto, we are talking about the partnerships between the European Union and resource-rich countries that are going on now with Argentina, with Romania, with Rwanda, not Romania, Rwanda, Kazakhstan, Congo, et cetera, et cetera. But okay, let's talk it in broad sense, the partnership and what the European Union could do.

In business, you have a very nice saying, and that is, the client is the king. Actually, you determine by what you want to buy the conditions in which this product is made. For example, with child labor, it's now very evident that the European Union doesn't want to have products from child labor, and still with some with the Congo, for example, there are still gray zones and et cetera, et cetera.

But it's a clear decision. It's a clear signal. We are not buying products that are produced with child labor.

Of course, labor is also going to come, but it's a decision. If the European Union wants to respect indigenous people's rights, it has to have this signal, just like with child labor, and it can. Because they are the consumers, they want to save minerals, but they are going to buy these minerals, and they are going to choose.

If they go to a country and say, okay, we want your copper. Oh, it's produced with child labor. Oh, no matter.

Come, bring that copper here. That's going to have a very big repercussion because child labor is already in the no-go, and it's clear. And you, are you going to buy a mobile phone produced with child labor when you know it's produced with child labor? Of course not. Maybe not. Probably not.

Are the educated people going to buy autos knowing that it's produced with child labor? Oh, look at my Tesla, 70% child labor made. What do you think? No, that's not going to sound good. I'm saving the planet by exploiting the children.

[Speaker 2]

No, that does not sound good.

[Speaker 1]

It's the same with indigenous peoples, but it's not said. Actually, that's what's happening with indigenous peoples. You have a Tesla, 50% at least or 70% is coming from the suffering of indigenous peoples and destroying the lands of indigenous peoples and poisoning the water of indigenous peoples and killing the leaders of indigenous peoples.

Hooray. But that's not said. And that's the role of the European Union. And it should, that's why I missed chance, because the European Union should have said in the Critical Raw Materials Act, okay, we need these materials. We are going to source these materials. These materials are in the lands of indigenous peoples, and we are going to ensure whatever is, whatever we get, we are going to respect the indigenous people. So we are going to pay the price. That's it. Simple. But they didn't do that.

[Speaker 2]

And yes, and so here we talked a lot about the issues in general related to it. So what could be, let's say, the solution to right now improve or like your recommendation to improve your solution? So here, if I understand well, it's also the role, maybe also of the consumer, like public awareness in general, but

maybe do you see specific solution to improve the landscape, I would say, for like indigenous people? Is it an issue or a solution related with governance? Like, I don't know, strategic raw materials governance board, like, what's your recommendation about it?

[Speaker 1]

Very easy. Meaningful stakeholder involvement, taking into account not only stakeholders, but rights holders. Stakeholders you have, you could include indigenous peoples, but indigenous peoples are much more than stakeholders because they are rights holders, they have rights.

And including them in the discussion, recognize their rights, ensure free, prior and informed consent in everything, in projects, in legislation, everywhere, in production, in extraction, recycling, whatever. Ensure the free, prior and informed consent is the instrument, the most important instrument. The two principles that are to be ensured is the self-determination, recognize that indigenous peoples have the right to determine what happens with them that affects their well-being in their territories, recognize their rights to their territories and to determine their life, and then recognize the instrument, the free, prior and informed consent as the instrument by which you can connect with people, design your laws, design your projects, because free, prior and informed consent is nothing else, nothing more that you used to when you want to meet a girl, or when a parliamentarian uses to approve a law. It's exactly the same, but it sounds so strange because it's indigenous peoples. When you are meeting a girl, you are free, probably you are not going to talk to his father and oblige her to meet you, that doesn't work anymore.

Before, yes, but now not anymore. It's going to be free. It's going to be prior, before you get married with this girl, you're going to know her and you're going to let yourself know to this girl. Then when you are dating already a couple of months and you want to advance with her to something else, she has to say yes, otherwise it's called rape.

[Speaker 2]

It's a good metaphor, I understand it. Maybe a quick last question was what do you think about the effectiveness of the governance framework related with the CRMA?

[Speaker 1]

It's not good. It's incomplete. It mentions civil society, fortunately, stakeholders also, but the proof is in the implementation. Indigenous peoples are not



included. I mean, 50 to 70% of the metals they want is going to come from indigenous people's lands and indigenous peoples are not there. What do you think?

[Speaker 2]

It's very obvious, right? It's not so fair, yeah.

[Speaker 1]

Yeah. What they are going to say is that, of course, they are not going to go to the indigenous peoples, they are going to go to the government because the government is the one in each country who is going to be the responsible for ensuring the rights of indigenous peoples in their territory. But unfortunately, the reality is that the governments are corrupted and the governments are not ensuring the rights of indigenous peoples.

And again, you could say with child labor, okay, we go to the governments and the governments are the ones who have to create a framework to avoid child labor and they have to ensure that our products come without child labor. It's wishful thinking, okay? And you cannot say we have been with the government, we wash our hands.

That doesn't happen. But it happens with indigenous peoples because they say we go to the governments and that's it. No, indigenous peoples have to be in the governments, seriously, in any governance scheme at all levels, not only at the European level but at the national level, the regional level, at the local level.

You cannot imagine a place where our indigenous peoples, where minerals and mining is going to occur in their territories where they are not present. It's like the Handicap International saying, nothing about me without me. It should be actually for every group, for you, for me.

I mean, I'm not going to marry you with my daughter without your consent or my daughter's consent, without you even knowing. No, I have to consult you. I have to because it's directly you.

It concerns you and that's with indigenous peoples. If you are serious about respecting the rights of indigenous peoples, you have to take them into account in every level and you have to ensure the self-determination, the self-determined priorities, and the free, prior, and informed consent of indigenous peoples. It's very simple actually, but it's so difficult to get it politically through because it's power.

[Speaker 2]

Yes, yes. With everything that you told me, it's true that I questioned myself about why it's not in the, let's say, regulation with more details. I see here that our meeting is close to the end. Is there anything else that you would like to add that we haven't covered?

[Speaker 1]

I think indigenous peoples is not as known as child labor or women, gender differences, and that provides the opportunity of still keeping old colonial structures. I hope people like you with research is going to bring more information and more neutral information because it shouldn't be biased information, not even from indigenous people's side, but certainly not from business side. I mean, when you go just and reach for evidence from the ground about injustices or what we call the new green mining, it seems as we have amnesia of all the human rights violations and indigenous peoples' rights violations and environmental degradation that occurs due to mining.

So, we need as citizens, as researchers, as institutions to get a higher sense of reality and know more if you talk about indigenous peoples, know more about indigenous peoples and the consequences of our products on indigenous peoples' lands and our transition in the rich countries on indigenous peoples' lives and territories. And then, be bold and just and say, okay, this is a no-go. I cannot admit child labor, I cannot admit the violation of indigenous peoples' rights, and I cannot admit that defenders of the ecosystems are being killed just because they are fighting for their life, their families, and their environment.

I think that's the work we have to do, everything and everyone at every level.

[Speaker 2]

Thank you very much for... I think I saw the Zoom meeting was in Spanish. So, muchas gracias por su ayuda, P22, y también por su tiempo.

Fue muy útil para mí y también creo que es muy triste la situación que... por los indigenous peoples, no sé cómo decir en español, pero muchas gracias para todo y voy a pensar mucho sobre este tema. Así, muchas gracias, Yblin, por eso.

[Speaker 1]

Con todo gusto, Gauthier, me ha encantado conocerte y cualquier cosa me comunicas. Me gustaría mucho tener una copia de tu trabajo cuando terminas, si es que es parte de tu tesis, me gustaría mucho leer tu trabajo.

[Speaker 2]

Por supuesto, voy a enviarte mi trabajo y mi tesis sobre este tema, y si tengo una cuestión, volveré para preguntar la cuestión sobre ti. Mi español no es tan bueno, pero muchas gracias por todo,P22.

[Speaker 1]

Está muy bien. Muy bien, un gusto conocerte, que te vaya muy bien.

[Speaker 2]

Yo también, y que tengas un buen día.

[Speaker 1]

Sí, tu también. Muchas gracias.

## Interview with P23

[Speaker 2]=Gauthier

[Speaker 1]=P23

[Speaker 2]

Perfect. So I'm a final year student of a double master degree and in fact for my thesis I decided to focus on the analysis of the EU strategy for critical raw materials as defined in their critical raw material act and we focus more about like social and environmental impact dimension of it and it was also very important for me to see like what could be the impact of this strategy on like a country that have a lot of resources and also to really understand like to this global context.

That's why also I asked to plan a meeting with you and I can assure you that everything that will be said will be confidential, anonymous and maybe can I just like record the voice like that I can release it for me later and just I can focus more on you.

[Speaker 1]

Yeah, it's okay. You can record it.

[Speaker 2]

Perfect. So maybe first like could you briefly introduce yourself and explain me like your involvement with critical raw materials?

[Speaker 1]

Thank you very much. Thank you for your time and I appreciate your effort to do more research on the critical minerals and looking at the...

[Speaker 2]

I don't hear you. You're back.

[Speaker 1]

Hello. Yeah, I think I lost connection somehow.

[Speaker 2]

Yes, I lost you when you were starting to present yourself.

[Speaker 1]

Yes, my name is P23. I'm currently working in an African Intergovernmental Organization. I'm an expert on resource mineral resources development.

My work focus mostly on the commodities as raw commodities, minerals, oil and gas and we look at how we can also use the agricultural products for agro-industry. So I've been working with this organization for the last five years in different positions but mostly we are advocating for the African mining vision implementation and that vision look at how best the African continent can harness the potential of mineral resources to encourage and promote you know socio-economic development. If you look at the Critical Minerals Act from the name itself it is an European Union Critical Minerals Act.

So clearly it doesn't have jurisdiction in the African continent but as we look at the technologies for energy transition if you look at rechargeable batteries they need lithium and we have lithium in Africa. If you look at the electrical vehicles they need cobalt, they need copper, the same to wind turbine their magnets also need rare earth element. If you look at solar panels and all those future technologies they need minerals.

In fact we are going to even get more minerals for us to live in a sustainable environment. So in other ways it is more mining and when we do more mining to get lithium, to get cobalt, copper we are destroying the environment and we are also somehow amending the social life of the people who live in those areas. Africa is very rich in those minerals.

You go to DRC Congo, you go to Zambia, you go to Zimbabwe, Tanzania, Ethiopia, Africa is rich with those mineral resources. Of course we want to add more value into our natural resources. That is why the element of partnerships is a key.

Partnership in a way that the indigenous communities are also benefiting from mining operations with the high standards and I understand this is your interest on the environmental and social governance. That is where we are also saying we are very restricted on that. We have continental policies, the Africa mining vision, it is envisioning transparency, that is a mineral governance.

It also looks at the social governance and environmental issues. It also looks at industrialization and value addition. It means we don't want to encourage the export of raw material without benefit.

So we want to look at what kind of partnership that can add value into the raw materials we have. With that we are expecting the European Union Critical Mineral Act to also work on that because there are clues about working with allies, working with a country that is in a position to supply the market. So we will be looking at how best the continent can leverage on the existing partnership.

There is a very clear partnership between the European Union and African Union and also bilaterally with African countries and we appreciate that. So we need to promote more partnership and collaboration to progress together. So let me stop there. I understand you have also a question that you really want to answer. So I'll be happy to answer your question.

[Speaker 2]

Yes, so thank you very much for that really insightful introduction and you touch a lot of really interesting points that I will ask you more questions about it. So maybe here is the first question. You talked about strategic partnership and I was wondering in the context of those partnerships, what are the critical needs of resource-rich countries of Africa and do you believe such partnership can significantly contribute to African countries development?

[Speaker 1]

Yes, you know the common exercise over the years, it is exploitation of resources and we always call it from pit to pot, from the mine to the pot, right? It has been there and it is still there in the continent. If you look at the bauxite in Republic of Guinea, it goes outside the country directly to the pot and then to the country that have capacity to process and produce aluminium, right?

So for us a partnership that add value will be much appreciated in a way that you are also encouraging industrialization in the place where minerals are found because there is a very unique character of minerals. Minerals are geographically located in specific areas based on natural occurrences, you

know? So it means they are specific to that geological setup to have such a mineral.

So in that case, those countries that are in doubt with those resources, we are hoping that they can also be able to benefit from the infrastructures because you need access to infrastructures where you have roads, you have facilities, you also need access to technology where there is some sort of technology transfer, you learn about these mining machineries, you learn about using technology in mining and so on and so forth. Those are the things that could be better areas of collaboration or a strategic way of saying we are not just exporting raw materials but also we are benefiting from your technology, the technology there you are bringing, the infrastructures that you are bringing, you know?

And improving the overall ecosystem because at the end of the day we need the indigenous community to benefit out of it, which is not the case currently. Most communities suffer. They have the environmental impact that is, you know, deforming their life and affecting them.

So we need to correct the wrong. So a partnership that looks at those benefits, that is a win-win partnership that we are looking for, could be really promoted and encouraged. So those are the aspects that we want.

If you look at also knowledge sharing, it is a critical aspect. You have to know what you have and that is the way you do more exploration to know whether you have visible resources that you can exploit because some resources they may be there but they are not economically viable. So you need those who have the experience in exploration to say, you know, we are coming to help you to understand what you have in the ground.

We evaluated for you and we will evaluate the economic value of it. So the visibility, you know, so we need partnership not only in the extraction but also in the processing, recycling and also contribution toward the overall supply chain, you know. So these are...

[Speaker 2]

I think, yes, I think it's good. If you can hear me.

[Speaker 1]

Yeah, I think it was disconnected somehow. So yes, these are the elements that I mentioned in terms of value action and capturing most of the value in the continent in Africa. Because look at the greenhouse gases, even moving from

Africa to other side of the world, how many greenhouse gases you emit, how many, you know, fuel you burn, run that big, let's say, vessel to take the raw materials.

So if you can, you know, look at it from broader perspective, it is not also healthy exercise for our environment and achieving carbon neutral by 2050. So we need to be strategic. We are saying that we are open for partnership. We want partnership that also, you know, improve the socio-economic development in Africa.

[Speaker 2]

It's super interesting and also this aspect of value creation, if I understand well, is super important. So like the EU and some African countries have already signed some strategic partnership. And like what are your thoughts about it? Do you think it's enough details or like what are the downside of the one that have already been signed?

[Speaker 1]

Actually, most of them, from my experience, it is an unwelcoming move, it's a welcoming step. But also looking at some are still in a very preliminary stages. If you look at the European Union agreement with Namibia in green hydrogen, I think the details of the memorandum of understanding is yet to be developed. They signed it in 2022. It is two years now, but still there is no concrete action. Of course, mining takes time.

It's not like you do it today and tomorrow you go and mine. Even when you start working in the mining area, it takes a lot of years, it takes a lot of resources. So it is very unique sector where you invest heavily, it needs a heavy investment.

You spend a lot for you to go into mining, even before you get your profits or you get revenue from that. And if the laws and governance structure are not supporting, it might also be a challenge. So though there is a increase in those partnerships, I believe they are in the right direction.

So we need to consider operationalizing them in a way that it benefits those specific countries, because now it comes to...

[Speaker 2]

I think it's good.

[Speaker 1]

It's okay now?

[Speaker 2]

Yeah, it's okay.

[Speaker 1]

Yes, if you look at Africa, Africa has 55 member states that are in different countries. For example, there was an initiative by the European Union to establish a critical raw materials club.

[Speaker 2]

Yeah.

[Speaker 1]

That club attracted interest from some countries in Africa, like Zambia, Uganda, Tanzania, Rwanda, the Democratic Republic of Congo, South Africa, Nigeria and others. Those countries are endowed in natural resources. So it means it also brings them into that critical raw materials club to share experiences.

Not only contributing to European economies, but also contributing to African economies in terms of manufacturing and adoption of new technology or sharing of technologies. And it also aligns with our aspiration for industrialization under the African Union Agenda 2063, where we look at industrial Africa that also work collaboratively with other parts of the continent. So it comes with benefits, those more understanding, though it is country-specific, as I said, minerals are not everywhere.

It is based on geographical occurrences. If you don't have them, you don't have them. If you have them, you need to do more exploration, you need to understand if they are economical or they are not, right?

So we still need to do more exploration. So I hope those partnerships also can encourage exploration of those critical raw materials. That we can know more better in details.

[Speaker 2]

Yes, it's super interesting. And I was maybe wondering also, because I've seen that for a lot of countries in Africa, there was also interest from other nations, like for instance, USA or China. And so, like, I was wondering, like, how do you perceive, like, the offer of the EU countries compared to the one of the USA, China, or even other nations?

[Speaker 1]



I said earlier, minerals are in specific jurisdiction. They are in specific countries, and that country has a foreign policy, right?

[Speaker 2]

Yes, you can hear me? Because I see you. I think it will work.

[Speaker 1]

Yes. Can you hear me?

[Speaker 2]

Yes.

[Speaker 1]

Yes. You know, as I was saying earlier, is that if you look at partnership, it is based on a specific country foreign policy. Because, yes, we are the continent of Africa, but still, we are member states.

It's like even in European Union, France and Spain and Italy, they don't have the same policy. They have different approach of seeing the foreign policy, right? Even if they are under European Union, we have the same setup in Africa, where you have countries, they have minerals, but they choose who to partner with, based on the necessary cooperation or mutual partnership that they agreed into.

But the principle in general, we are looking at, you know, equal and mutual opportunities, right? In a context where there is also a shared responsibility and an ownership, you know, the unconditional partnership, you know, because each partnership is negotiated, each agreement in minerals is negotiated. So it depends on who is giving you better offers, right?

So there is no specification or point in one country of saying China is better, US is better, or Europe is better. There is no such an indication of who is favorable. But what will bring the choice of countries to choose is how those partnerships are negotiated, is it favoring the country?

So, of course, everyone will go for what favor your development trajectories, you know? Of course, now, if you say, you want to come to my country, and you want to set up a manufacturer, you want to add value into those minerals, I will give you a chance, despite you are from China or US or Europe, I'll give you a chance. Rather than someone coming and saying, okay, I need only the raw materials, let me take it somewhere, I process it, and then I'll bring it back to you in a finished product. You see the difference?

[Speaker 2]

Yes.

[Speaker 1]

So it's very, there is no one size fits all.

[Speaker 2]

I see. And I was also wondering, maybe because, like, in the EU, when they communicate about it, they say that ESG standards and everything related with sustainability is really one of their, let's say, competitive advantage or something that they can bring to countries, better sustainability environments. Do you think that's, like, what do you think this sustainability commitments are valued by the different countries? And also, do companies operating within these countries are there to those, like, ESG standards?

[Speaker 1]

As I mentioned, it depends from investor to investor. And I don't want to be too specific of which country is respecting, I mean, which company is respecting the ESG, the environmental and social governance. But mineral governance vary across the continent, we have laws and regulation in each jurisdiction.

So when multinational companies sign an agreement with a country, they look at all those elements based on the regulation in that specific country.

[Speaker 2]

Yes. Yeah. Can you hear me?

Yes. Perfect.

[Speaker 1]

Yes. You know, when you talk about environmental and social governance, it is a two way thing. It's not about which country is doing it, you know, because it is a framework where the mining company is there, the government as a regulator is there, the investors is there.

And it also varies from project to project, you know. So there is a How do you balance the ESG and the benefits? Benefits, of course, to the people, and the profit that the company is taking away and the government, you know, oversight role in terms of regulating, you know, issue of safety, human rights, look at the quality of air around that mine, the water, the rivers, next by looking at the government aspect where you look at the tax, the royalties, and then

another aspect, you know, so there is this license to operate the license to operate, you must ensure that you have ESG, the highest standard, right?

So that even bring the trust from the surrounding communities. So it means you can have one way to look at it. But it is both way where company is also committed to ESG, the government is committed to ESG.

And the society, the local communities, the indigenous communities, where their land is excavated, where their land is destroyed, where they are displaced, there is a social aspect. So it's a win-win. So it is based on how that country is very strictly applying their laws and how that multinational company is also looking at the ESG.

So it is a win-win. I can't just say you need to be perfect. And then when I come and walk inside the mine, I'm not going to respect the ESG standards. So we appreciate and encourage high standard of environmental and social governance, because with that, you ensure that there is a sustainability. You protect the environment, but also you exploit the resources in a responsible manner. That is responsible mining.

You know, we like that. We need it, but we need it to be operational, not just a concept. In many aspects now, it is still a concept, you know, where people are discussing about it, but in reality, the opposite is happening.

So it is something that is encouraged and its applicability varies from country to country, from company to company. It depends. But in general, we appreciate a high standard of ESG.

[Speaker 2]

And I was also bouncing back on that, wondering, let's say, once the company gets a license, after that, in terms of monitoring of it and to be sure that everything is well enforced, do you think that maybe there could be also added value on that monitoring step in terms of capacities to ensure that there is, for example, everything that is well, like, fitted and not like, let's say, corruption that could be led from those lack of capacities?

[Speaker 1]

Hello?

[Speaker 2]

Yeah, can you hear me?

[Speaker 1]

Yes. You know, government has...

[Speaker 2]

Yeah, perfect. I think it's work.

[Speaker 1]

Hello? Yes. I was saying that the government's role is to regulate the mining operations, where they send, you know, inspectors to the site regularly, they collect data, and they check how that specific company is operating in a specific jurisdiction.

And if it is done in a cooperative manner, there will be a benefit from both sides, where there is due diligence from the company, and also, you know, support from the government for those who respect the ESG's policy, and also the environment. So it is there, it is there in most countries, some are very effective, some are not. So there is that variation, but it is a regulatory task to check and evaluate and assess. It is there, it is always there.

[Speaker 2]

Perfect. And maybe more on the social side of it or so, I was wondering, like, in general, like, or do local communities in, I mean, in African countries, perceive mining processing or so, like, recycling project in general, like, do you think they see it more as an opportunity, or is it, for example, as a threat? Because, for example, in a lot of EU countries, local communities are not so happy when they, in terms of public perception, when you have a mining project. And I was wondering if it was different in some African countries, like, for example, Namibia, Zambia?

[Speaker 1]

It depends based on the country, but some countries perceive it positively, where the companies respect the environmental and social governance. Also, some people view it from the angle of creating jobs and more opportunities, creating infrastructures like roads, bringing electricity, and opening up a new market in that area. So, those are the positive aspects that come with mining.

When the company is not respecting the laws and regulations to protect the environment, this is where the problem happens. And you find the indigenous communities are not happy because now the waters are contaminated, even their animals can't drink good water, their crops are affected, completely their life is 100% changed. In that area, you will find there is a tense relationship

between the company and local communities, because now, rather than adding value into their life, it is even making their life worse.

Polluting the water, you know, the crops are not there anymore, and then displacement, you know. So, it depends on how you arrange those aspects and you balance them, because some big operations, they are required to remove people in their natural places to other places. So, if it is done in a way that the local communities are not happy, they will not appreciate that, they will be against it, you know. But if it is done in a way that it respects...

[Speaker 2]

Can you hear me?

[Speaker 1]

Yeah, I think it's good. It is a bit challenging.

[Speaker 2]

Don't worry.

[Speaker 1]

Yeah, so, I was referring to community engagement or indigenous community engagement. If they are well-informed and they are part of the decision-making in the mining operation, there will be no tension between the companies and the local communities. But it happens when they are completely ignored and things are done in the capital city, through governments at the high level, and they are not involved.

There is agitation. They are agitated in a way that they are not involved, and now, the company is destroying the environment and not even respecting their rights to exist in that land. So, there is that kind of thing in different aspects.

So, it's a mixed kind of thing. Sometimes they demonstrate, they ask the company to go, and then they sit again and they solve the issues. There are those kinds of things.

And there are some companies that are definitely closed because there was no breakthrough between the local communities and the company. That's why we are saying the indigenous communities need to benefit. And they need to be involved.

They need to be part of the decision-making. In that, you can ensure sustainability of the project. And you will be sure that you are somehow addressing their needs and demand as well. So, those are the things that are

there. The continent is too big. You can't have one size fits all. So, it is different from country to country. So, you also need to get that very clearly.

[Speaker 2]

So, it really depends country to country. Also, like project to project. But if I understand well, like really an important point for local communities, as well as indigenous, let's say, or tribes or communities, it's really like trying to involve them in the project to make them contribute and to create value for them.

[Speaker 1]

Yes.

[Speaker 2]

Perfect. And I was also wondering about young population, how they perceive mining and value chain of critical raw materials. Because I saw that, for example, Ethiopia have close to 50% of population under 18 years old. So, there are a lot of young people, young population. And I was wondering, how they perceive critical raw materials opportunities or challenges in general.

[Speaker 1]

Yes. Africa, in general, is the youngest continent. We have close to 600 million people. That is 60% of the population are below age 25. That means we have more young people in the societies. And those young people, they need opportunities.

And some will find opportunities in the mining sector as artisanal and small scale miners. And some who are lucky and get education can also be employed in those multinational companies. So, yes, young people are engaged in the mining.

And also at the bottom of the value chain, because their role is to extract the materials, the raw materials, that's it in there. They give it to whoever is buying from them and that person export or take it somewhere else. So, their involvement across the value chain is not like from A to Z, you know.

It ends at the extraction level, where there is actual mining. But not only women, I mean, not only young people, there are also women. Yes, I was just trying to talk about the role of women as well in the mining sector.

So, you know, there is a good number of women that are also part of the mining. I don't know if you know about the artisanal and small scale mining. Those are the mines that are using rudimentary tools. They don't have big

machines and excavators or bulldozers. They use small equipment. Sometimes they are agricultural tools to get the raw material outside.

So, there's also a big number of women that are involved. The other section is child labour in most of the places where you find also children are involved in a way that they are maybe following their mothers into the site or they are there because of maybe the ill-luck parent or for some reason you find children in the mining site. So, there is that aspect of child labour in those areas.

But young people are dominant, even the fact that they are the of our population and you find them looking for opportunities and so on. That's why we said for us to even recruit more young people, we need to encourage value addition and processing of the minerals in the continent. So, when you are doing beneficiation in the continent, how many jobs are you creating?

Thousands of jobs, you know. You create thousands of jobs because if you look at young African, they travel across the Mediterranean Sea, across Europe looking for a better life. So, we want to stop that.

For us to stop the migration, the illegal migration, we need to create opportunities. We need to create jobs because it wouldn't make sense to export the raw material. You create jobs somewhere and our young people are jobless and they are looking for opportunities and then they end up dying in the Mediterranean Sea trying to cross to Europe, you know, looking for opportunities. Why don't we work together to create jobs where they are? Even it can stop migration, you know. It will stop the migration because the fact that they are migrating is they lack opportunities in their own countries, you know.

So, if we create more opportunities collaboratively in terms of partnership, we will even reduce that flow of migrant, let's say, to Europe or to other places. So, we have, you know, like a mutual solution for those problems and it doesn't mean the country that is investing in local value is not going to benefit. There's a lot of benefit, there is incentives for companies that are ready to make or to set up processing plan in the continent.

You can enjoy privileges of bringing equipments free of duty, they don't tax you when you bring in your equipments. Sometimes they give you tax holidays where you don't pay because what your company is doing is a great work.

[Speaker 2]

I understand. So, it's really important also to develop that value chain. Can you hear me?

[Speaker 2]

I think you can hear me.

[Speaker 1]

Yes, I was just concluding that point of saying working together to set up processing plans and minerals beneficiation in the continent can create more jobs and also, you know, you absorb more youth into that sector and moreover you stop the legal migration, you know. I believe it's something that Europe also is very keen about it.

[Speaker 2]

I understand it. So, it's really about like creating those, let's say, next step of the value chain like processing, recycling and really try to keep the talents in African countries and really to develop it with that. And I was wondering, like with processing, recycling, like what are like your actual challenges? Like why does it not develop or develop slowly and really like doing some partnership, I guess, can help to enhance the level in terms of partnership and recycling, for instance?

[Speaker 1]

Yes, I think the most aspect of this is technology and, you know, infrastructures and in other countries, it's energy. In other contexts also it's sustainable financing. As I said, mining is a big investment. Sometimes you may not have the resources, the financial capacity to go through mineral processing process, right? So, partnering in those areas of energy availability, technology, infrastructures and sustainable financing could be the areas to encourage, you know, value addition in the continent. So, these are the areas of improvement, those are the areas of partnership that need to be enhanced and improved for us to achieve that and it is the main challenges.

[Speaker 2]

Really interesting and also maybe, do you think that in terms of circularity, so not just like recycling, like the EU or like partnership in general can really help to develop circular economy generally in African countries?

[Speaker 1]

The circular economy is somehow effective in a way that you reuse or recycle the existing materials. So, you discourage, even you can discourage mining itself, you can discourage extraction. So, you are saying, let's not extract more but let's use what we have.



So, it means I have my laptop and I have maybe the lithium battery, how can I recycle it to produce something else or to renew it to bring another battery, right? So, that is the concept of circular economy.

[Speaker 2]

Can you hear me? Yeah, okay, can you? I think it's good.

[Speaker 1]

That's okay.

[Speaker 2]

Yeah, yeah, it's working.

[Speaker 1]

So, I was saying circular economy is important but also it needs to be balanced because it looks at discouraging all the extractives, it looks at discouraging introduction of new material to the economy. So, it promotes the reuse or recycling of the existing materials. But in that case, it still needs to be balanced on how you create a balance where you also promote circular economy and sustainable industrialization or sustainable mining in this context.

So, they can work hand in hand but circular economy shouldn't be the replacement of sustainable mining because let's assume if Africa want to move that direction, you are literally recycling or using products which are not necessarily produced in Africa. So, you eliminate that element of sustainable production or sustainable industrialization. So, there is a bit of balancing the two to ensure that sustainability matters.

Circular economy alone will not work but also an absolute extractive or the traditional economy that we are used to will not also help. So, there is a need to balance the two where you are able to reuse materials. Why not reuse them?

When you are able to recycle them and you have the technology for recycling, yes, do that. Like the plastic bottles, they are being reused or recycled. I think there is a great progress in that but we just need to strike the balance.

[Speaker 2]

Really strike the balance to continue to create the value, let's say, with the extraction in general in terms of sustainable mining and also when we can reuse it, recycle it, really promote that circular economy and find a good trade-off between both if I get it.

[Speaker 1]

Exactly.

[Speaker 2]

And my last question would be like, what do you think are the risks or main challenges that could appear with those strategic partnerships?

[Speaker 1]

I think the biggest one is peace and security. When there is a conflict and violence in that specific jurisdictions, that is a big threat and risk. And the opportunity is that Africa has a majority of those critical minerals that the world is needing for green industrialization, for electrification and so on. So, those are opportunities that we can jointly exploit in a way. It also benefits the local communities, it also benefits Africa as a whole and the countries that are leading in new technologies. So, it is a win-win situation.

[Speaker 2]

I think it's working. Hello? Yeah, can you hear me?

[Speaker 1]

Yes. So, yes, I was saying that I mentioned the peace and security as a threat when there is no peace, there is no problem, you can't do anything. When the security is under question, you can't do anything, right? It can be also a threat, but the opportunity is that Africa is reaching those critical minerals and it's an opportunity to use those critical minerals collaboratively, benefiting from each other competitive advantage.

I believe Africa has what it can share to contribute towards energy transition and then we are looking at critical minerals for energy transition. So, those are opportunities that can be explored. Otherwise, if we need to live in a world that is sustainable and then we use renewable energy products, we need to be also mindful of the people who live in this jurisdiction where there are critical minerals also need to be part of this global development and advancement. So, with that, we can ensure a sustainable partnership, which is a win-win partnership. Thank you very much.

[Speaker 2]

Thank you very much, P23, for your time and also for all those insights, it will be really useful for me. Is there maybe anything that we didn't talk and that you think is really interesting to take up?

[Speaker 1]

Just to get to know more about you, you said that you are doing your master's program or a PhD?

[Speaker 2]

Yes, so I'm doing like a double master program in business engineering and international management, but I was really super interested by this subject, by critical materials and how, it's super important. So, that's why I selected this subject and also like it was super important for me also to not have only like EU member states, let's say stakeholder and also to take the perspective of rich resource like countries or continents because I think that sometimes like in the EU, it's not really considered and it's super important. So, that's why I really wanted your perspective on it and it was super useful. So, thank you very much about it.

[Speaker 1]

All right. No, thank you very much and I wish you all the success. If you need anything, you can just text me on LinkedIn and I'll be happy to share more insight with you.

[Speaker 2]

Thank you very much, P23 and have a nice day. Thank you for everything.

[Speaker 1]

All right.

[Speaker 2]

Thank you. See you. Bye-bye.

[Speaker 1]

Bye-bye.

## Interview with P24

[Speaker 2]=Gauthier

[Speaker 1]=P24

[Speaker 2]

So perfect. So my name is I am a master's student and I had to select a subject to do my thesis and I chose to do it on the analysis of the EU strategy for critical raw materials as defined in the CRMA and with more an aspect related with environment and social. And so when I looked more into details about that subject, I saw that financing was super important or so strategic partnership and I really wanted to have a broad perspective of the topic and also to interview a lot of people related to that. And I participate to the EIT summit where I saw your session and it was super interesting. And so that's why I proposed you also to do that meeting. I can also ensure you that everything that will be said will be anonymous confidential. I don't know if it's needed, but I prefer to see it. And also, yes, can they maybe just record your voice like that? I can listen it later and just I can focus on you.

[Speaker 1]

Sure, it's fine. You can record, but just the voice, please. Don't worry, I'm not going to provide any confidential information.

I'm an employee of the bank, so I know how to deal with publicly said information, commercial sensitive information. So I will tell you everything I know, but just from what I can share with the public as well.

[Speaker 2]

Perfect. I prefer to mention it just to be sure. So maybe could you briefly introduce yourself and so explain me like your involvements with critical raw materials, for instance, or CRMA.

[Speaker 1]

Yeah, sure. So I'm a principal banker in natural resources team in an EBRD. I've been in EBRD for last years and in this sector specifically eight years.

Natural resources in EBRD is focused on mining of metals and minerals and also biofuels. There's other things, but these are, let's say, key themes within our team. In metals and mining, we invest in all sorts of activities starting from exploration, actually, due to various studies, feasibility studies, pre-feasibility studies, then going through construction phases, operation phase of the mine and closure, which is very important.

Closure remediation is very important for the mining activities. And we have worked actually also on several projects, which are dealing with some legacy mining sites where you can recover basically secondary recovery of minerals from the waste dealings. So that's something we did.

As EBRD, we finance the entire value chain of CRM, but my specific team is focused on upstream. You should be very specialized in each of those topics. Refining is more about chemistry, mining is more about geology and technical work, so it really depends.

So that's why we have expertise within the bank in different teams. In the upstream team, as I said, we have technical expertise in-house in the bank, we have mining engineers, we have environmental social engineers. We place a lot of emphasis, and I'm glad that your topic is about environmental social, we place a lot about that.

We have our own environmental social policy, which we measure against all our projects, doesn't matter the industry. But as you can imagine, mining is one of those where you spend most time on environmental social aspect questions. We take it very seriously and what you can see also on our website maybe will be helpful for you.

We have published our mining strategy, so if you google EBRD mining strategy, you'll find 2024-2028 and it has a lot of discussion about environmental social aspects of mining, so maybe helpful for your thesis. Second also, you can obviously google our environmental social policy if this is something of interest. Since you told me that your thesis is about that, maybe you can find some useful topics there that you can use in your thesis.

[Speaker 2]

Perfect, thank you also for the introduction and also to provide me those tips with the mining strategy. I also seen that you just published the documents with EBRD and the CRMA in general, so it's super interesting. And I was wondering first, maybe to have a broad view on your opinion on that, would be like, how do you see the role of the EBRD in relation to the CRMA, to participate with the CRMA?

[Speaker 1]

Yes, so we are a financier, but we are also a development bank, so our two roles will remain the same. One is financing certain projects which are eligible and then I will talk about it a bit more, and then policy dialogue. Policy dialogue is very important because there are a number of things that can be improved in countries where the minerals are extracted and we are there and working with the governments and different parties to help them also address the needs they need.

And you know, for example, you assign a number of strategic partnerships with different countries and underpinning those strategic partnerships are different roadmaps, and those roadmaps have a number of actions. For example, digitalization of geological data. Somebody has to do it, so we will, for example, if we are already present in the country, we could help the governments find technical assistance, basically find some funds and find the right consultants to help them meet this milestone.

There could be others, aligning legislation on a number of things, and we could also be helping. Obviously, we wouldn't be the sole party implementing the entire MOU or entire roadmap, but we could be helping on certain things where we already are comfortable, where we have expertise, where we can find also raise financing. Because for that part, for policy dialogue, technical, we typically can raise some grant money to cooperate with the relevant bodies in the country to help them actually gain the expertise they need. So it would be providing money to hire certain consultants to fill in certain gaps, do the trainings and stuff like that.

[Speaker 2]

And maybe, what are your thoughts about the financing aspects within this specific framework? And also, would you have maybe liked more detailed provision or what are the gaps that you can see for it?

[Speaker 1]

Just a second. I'm sorry, I have too many priorities at the same time. Can you please repeat?

[Speaker 2]

Yes, yes, don't worry. So here, I was wondering, in your opinion, what do you think about the financial aspects related with that framework? And also, maybe, would you have liked to see more detailed provision about it?

[Speaker 1]

You mean the CRMA itself?

[Speaker 2]

Yeah, the CRMA itself.

[Speaker 1]

I think, well, everyone knows and everyone keeps saying on all the events that you have been, it's very good to have legislation, you also need to have

financing in place which underpins the legislation and then helps those projects to be materialized. Because in the end, you're doing the legislation for the purpose of those materials being readily available for competitiveness and resilience of the industry. And everyone also knows that this is the industry with a very high cost of capital because of a number of risks.

It's a very risky industry, including starting from very basic geological and technical risks, then to go into environmental, social, and then everything in between. There are quite a menu of risks if you look into this industry. We may be making the cost of capital very expensive and making for a number of projects not being ever developed because of a high cost of capital, but also because it's not even available to certain projects.

So indeed, and my understanding is that the EU is trying to develop instruments which would work and support those projects. One of them, well, the two of them that I am aware of is InvestEU legislation which provides certain guarantees for implementing partners and basically will reduce the cost of funding on that project. And another one is FSD Plus which is outside EU countries, again, targeting to reduce the cost of funding for those projects.

These instruments are suitable for, let's say, construction stage of the projects and expansion. They are not suitable for earlier stage exploration. There will be other instruments hopefully developed.

One we are actually working with EU as well. At the moment, a very small pilot transaction, well, not transaction, but pilot instrument or financing instrument, I would say, which will be publicly available in a few months, I hope, to support also early stage exploration companies. But yeah, this is what it is.

I think legislation is not specific on that, but I think everyone is waiting for concrete actions and these are the actions. I see the conditions undertaken. In which case, I will not comment.

[Speaker 2]

And so here, let's say, we have the EBRD and we have also the strategic project. So if I understand well, if I have a strategic project, I have to apply for it and then there is a commission and also the critical raw materials board that will evaluate that and also that will determine if yes or not, what do you need and if you need funds. And after that, if my project needs funds, I will be maybe put in contact with the EBRD.

And then I was wondering how it works. For example, if you have to accept, for example, to finance a project or if it has to respect your criteria, how it happens

concretely. Because I see a lot of things on the paper, but in the term of implementation...

[Speaker 1]

No. So the fact that the advisory body or which body will be labeling the project as strategic doesn't mean EBRD will automatically accept the project and it will make it automatically eligible. Because we have our due diligence, we have a number of requirements for the project, as any financier would, which would need to be satisfied.

And as you said, this process doesn't have to be in these steps. So it doesn't have to be that the project goes to the... I don't know what the body will be, but I know that there is a body form that will be reviewing the projects, whether it's a CRM board or something.

But it can be in parallel because, for example, we are already in the industry, so we know the players in the market and with some companies we're already working. So we could be already in the process of determining whether or not this project is eligible for our financing. And they can be in the same process in parallel applying for strategic project.

Because the fact that they're strategic is not only about financing, it's also about permitting and other things, which is also important. So, as I said, it can be the same, I mean, parallel can be consequential, but it doesn't have to be. In any case, just a review by CRM board and saying it's eligible to be a strategic project doesn't mean it's eligible for financing.

Because financing has to do their own due diligence, which is typically KYC, who's the owner, where are the owners, you know, domiciled, are there any tax issues or not, you know, the whole domiciliation policy comes into play. Then there is technical assessment, you have to know what's in the ground, basically, and how it's going to be implemented. Then there is environmental social assessment, which is usually the longest, as I said.

Then there's legal assessment of various risk and commercial and financial in the end. So, this is something, the full scope of the package, I'm not sure CRM board will be reviewing. They will be reviewing against certain criteria, which is, this is the material, this is important, blah, blah, blah, but not the whole scope.

I don't think they even have the capacity to do that. That's the job of financing institution to do it. But what can I say is, if one of the large institutions like us would evaluate the project and already, you know, provide financing, the others



usually would follow rather easy or faster because certain details just can be reused, shared between the institutions to make the projects financeable.

And that's what we do as well for our projects. Sometimes we finance just ourselves, but sometimes we bring all other parties to the table to make the whole project financeable. So, it depends really on the scale, on the size of the needs.

But I see a number of parties usually, if we are there, they are happy to take our advice on board, let's say, because we are very rigid and takes time for us to assess the project.

[Speaker 2]

And I was also wondering, like, so it was super interesting. And I was wondering, like, what does it really change for EBRD and also like other like institution or funds this year, does it help, in fact, to de-risk a little bit the project, like, what will be concretely the impact of it?

[Speaker 1]

Potentially, I don't know. I wouldn't say outright the risks, the project, unless, as you say, there is a frame in the country as well where the project is, where legislation is changing, which is, let's say, reducing the political or legal risk. If that's happening, obviously, it will de-risk, as for a project it was one of the risks of each project.

If that's not happening, then it's a bit, I'm not sure what's changing on the risk side, you know. So, yeah, the fact that there is CRMA, what is helpful, I think, is more the topic itself became more discussed between various parties. There is a bit more understanding, still a lot of understanding, because most people don't understand what mining is.

And if you ask anybody on the street mining, it's a bad word, swearing word mostly, still. So, although everyone ignorantly consumes all the materials coming out of the ground, nobody wants to acknowledge that they are coming out of the ground. So, that, I think, this at least high-level talk is helping a bit overall the society to understand how things work.

But, yeah, it doesn't necessarily change the risk profile of the transaction, because, as I said, every project is in certain jurisdiction, has their own certain risks. So, just the presence of this doesn't really change the risk. Unless, as I said, there is a change in some of their legislation, which are reducing political legal risks of the projects, which is possible as well.

And I would hope this would be a long-term effect that in the countries where there will be this partnership, there will be changing legislation, which will bring basically the whole country to the certain level, the risk, the overall industry, not just the specific project, but the overall industry in the country.

[Speaker 2]

And I guess it also depends with what you talked about, like, at what step of the value chain you are. So, if you are in exploration, I guess it should be different than if you are in mining. And I was also wondering, so, in terms maybe of strategic partnership, like, what are the issues with investing in projects related to a strategic partnership?

Because with what I heard with other like maybe stakeholders that for example China or USA they put let's say money more easily on the table and so I was wondering if there was any issues with like EU in general in terms of investing in the frame of the strategic partnership.

[Speaker 1]

Okay, so there are a few concepts. There is a strategic partnership that CRM is talking about that's EU signing agreements with certain countries. It's one thing.

It doesn't mean that in those countries or some other countries there are no other players present at the moment or there are no other players looking for the mineral itself. So there is always as in any market there is a competition for certain materials. I think yeah it's true and it's also known that certain parties require very minimum information before they're ready to invest.

Certain parties require much more. We are one of those similar to EU require much more but it doesn't mean that we are not investing. So we are investing and then the countries where we invest are happy that we are doing so.

So yeah I think it will remain to see what will happen but I think obviously in the countries the new countries that the EU is coming you will need to show something to make sure that the goals are achieved. It's not only a paper signed but to show something what is to support a number of projects to be on their side of the deal you know what they agreed with in specific country and it also shouldn't be you know like a copy-paste agreement with everybody because EU is clear what they want but are they clear what every other partner wants. So it shouldn't be like you know we replicate okay we think every single country wants the same from us.

Well obviously everybody wants money but the question is is it only about the money? How much money as well? Is it also about development?

Are we talking about increasing the skills in the country? Are we talking about longer term future? Are we talking about something else?

So these are the things which are important but also as I said again in different countries different context has to be taken into account. So I think there is a chance for success but it depends how people play it as well.

[Speaker 2]

Perfect. Thank you very much. It's very interesting and I was wondering like it's maybe a little bit abstract but do you think that the challenges like related to financing could lead to potential like risk concerning like maybe the social and environmental dimension associated with critical raw materials?

[Speaker 1]

Can you unpack the question?

[Speaker 2]

So do you think that the challenges related like with financing, financing a project or like maybe also during a strategic partnership could lead maybe to like a potential risk for the social and environmental dimension? Maybe taking less care about it for instance or do you think that is totally independent and is more related with the project itself?

[Speaker 1]

I would think no because for at least what I can say from EBRD's perspective it doesn't matter is it CRM strategic, non-strategic we would be doing the same care for any project whether it's mining or non-mining or any we have there as I said our environmental social policy and we cannot derogate from it. We have 74 shareholders countries which we have to report to and if there is a single thing changing in the policy you have to report it. They all have to vote on it.

That's a very big thing and nobody wants to put it in. So nobody would bring a project which deviates from the policy. You cannot do it.

So I don't think other institutions at least those that supported by you would be so this is not something which is a compromise I would say. I don't believe it would be if I don't know other parties are that's one of the value that the EU sees in bringing to the countries and I think it's a strong one. Some people keep

saying well if you want to be ambitious and you want to run against China and the rest you have to just drop it but well in the long term it doesn't work.

So and obviously that you were trying to differentiate if you cannot differentiate on that you definitely cannot differentiate on price. We are not the cheapest guys. So it's really about bringing the value bringing the long term impact you want to show that the projects you are doing are responsible.

They are not polluting the environment. In some of those countries the willingness of them to sign the partnership is exactly to bring also better standards to the industry not just to well I would think not just to attract other sources of funding. Okay we don't have to we need to not forget that there are you know some countries there are so many priorities and the first priority are to have at least electricity I don't know or something or basic to satisfy basic needs but still I think there is a big big push for better obviously better responsible projects and I mean I don't even know how to say because for us it's like always been at the core the project has to be responsible has to be environmental friendly it doesn't I mean what we are doing now we are actually pushing our clients to know just we used to do you know what net is called for example biodiversity no net loss now we're talking about gains in biodiversity and stuff so we are actually looking for climate nature positive solutions rather than just mitigating risks and actively encouraging our clients to do so whether it's always possible depends but this is something the direction I think we should all be going if we want to live on this planet in a long time.

[Speaker 2]

Perfect thank you very much and I have maybe like two questions left so the first one will be also linked maybe with the government's aspect so I've seen that like they wanted to to propose like different subgroups and like I was wondering like what are your thoughts on the proposed subs group to discuss and coordinate financing for strategic project do you think it will be useful and also like what do they need to be effective I think that the EBRD will also participate to that.

[Speaker 1]

There are already some groups discussing financing useful to the point I think also because not all institutions at the moment are involved in the industry and then there are those like us who are involved so we share experience also helping those institutions which are not readily there to understand to navigate the risks to understand that this can be done in a proper way as well even

though you know you are an institution with similar rules and you can do similar things it's just a matter of having the right expertise in-house so I think yeah I mean can be useful for two reasons again as I said knowledge sharing so helping others but also then these projects are expensive so you have to pull capital together it never be a one or two institutions which will finance all the projects this industry is a several trillion industry so there is never enough capital I must say

[Speaker 2]

yeah I understand like it's super expensive project when I saw the number at first I was quite surprised about it and last question maybe like more general but what are the financial mechanism that could be useful let's say to help achieve the goal of CRMA and support like to those projects and also maybe a de-risk those projects if you can think of some

[Speaker 1]

So that's what I started saying that the EU is already working and they have with different implementing partners certain guarantees in place which are de-risking and reducing the cost of capital I think there will be there can be more blending finance coming in and they can be working on those type of instruments so as I said it's all about making yeah lower cost of capital for this what is higher risk projects usually yeah because otherwise it will be hard to develop if you have 20 percent cost of capital you can imagine you cannot really build too many projects

[Speaker 2]

Okay and and so maybe is there anything else like you would like to add that we haven't covered and that you think will be useful or like really important point for your specific industry

[Speaker 1]

For my specific industry well

[Speaker 2]

For EBRD like what's related with the CRMA like is there anything else like you think are important related to finance investing and EBRD

[Speaker 1]

Not EBRD but for in general for industry I think it's uh and everyone has already acknowledged it I think there is need to allocate certain risk capital for

exploration of minerals because this is the most deprived part of the industry at the moment most of the project we are seeing producing have been discovered two decades ago in the past 15 years there was very minimal exploration done it was on the back of low commodity prices on the back of a number of things and we all know that exploration takes 10 to 20 years depending on the mineral and nobody finances those because for the next 10 or 20 years you will have no return on that so so this is something which needs more risk allocation of capital and I think institutions like EU or others can pull you know certain capital or grant funding or something to allocate because you know I don't know you need to support 100 or 200 projects of which maybe 10 or 20 will come out and will be an actual project and that's you know a very early start seed capital which is required because otherwise you will not yeah you will not fund you will not have materials in the future I mean yeah we can we're talking about this next 10 20 years but if we're talking long term yes there is recycling but it's not coming in the next 50 years most likely because we just don't even have all the materials out of the ground that we need now for green transition which then if we use them and depending what we're talking wind turbine or something which are 40 years in operation then you need to recycle it so we are longer long years away from being able to let's say recycle it at 100% even if it's technologically possible to 100% recycle everything we are still long away because we haven't even extracted all of that and haven't even found all of that so that's the challenge I see in not only CRM but in the green transition which is a very important bit

[Speaker 2]

So really like those exploration finding ways I would say to to de-risk those those projects because it's a long time and few probability of success

[Speaker 1]

Yeah yeah well EU but we'll say and it can be not only EU but then you can encourage you know all other parties there are such countries which do it with success like Canada and Australia they have all the programs for big companies which are not even minerals related but you can do this type of capital investments which you can offset against certain tax credits so then this way they support more exploration because in those countries there are thousands of projects going exploring at the moment of which some will ever come up so you don't do that the materials are never coming

[Speaker 2]

So I see that our meeting is close to its end so I will don't take much more of your time but thank you P24 for for everything and also for your time it was super useful for me and super kind of of you so thank you very much and I wish you a lot of success for your future project thank you

[Speaker 1]

No problem Gauthier and if you have any follow-up questions let me know it's a bit busy period but I can try in the same time and good luck with your thesis when is it due by the way

[Speaker 2]

Normally uh august normally august but I will try to finish it uh earlier

[Speaker 1]

What's next what's after the thesis

[Speaker 2]

So here in the meantime I will do like an internship at amazon luxembourg so different of critical raw materials very different yeah but still after that I don't know what I will do and critical raw materials are really like something I mean and since I started my thesis I saw that it's a really stimulating field and everything related

[Speaker 1]

But what is your education can you remind me is your engineering background or more financial background?

[Speaker 2]

So, I'm doing like two master degree one in business engineering and another one in international management so it's more like towards finance I would say than engineering yes but but yeah and you like what are your your next like project you're working on maybe

[Speaker 1]

I am working on a biofuels project that I'm signing in two days but also working on yeah on some mining projects well like mining exploration projects actually which hoping yeah to be successful in future we are actually announcing a small funding a small 150 million funding for early stage companies soon well it's already published on our website that we are working on but it's not approved yet so but we have to disclose you know as a public institution we any project or frame or anything we disclose on our website around you know

there are about two months or one month before we can discuss it at the board so yeah our website is very useful for a number of things if you want to see what type of project we support it or there is a bit of information on each of the projects so every project we have ever signed it's going to be there all the policies there some future projects are there which are in there let's say advanced stage some some projects are usually announced later and usually those are related to capital markets so if it's a listed entity obviously it will be only disclosed when it's approved and signed uh but if it's not listed then it can be disclosed earlier

[Speaker 2]

Perfect i mean i will for sure check the website and i wish that you will have a lot of success with uh those future like negotiation and also like future project because you are you must have so much work right now with this specific period like it must be crazy so

[Speaker 1]

yeah it's mid-year so it's everyone wants to do something before summer break it's normal

[Speaker 2]

Yeah but in july august it will be normally like chill, more chill i guess

[Speaker 1]

maybe august not july maybe depends usually

[Speaker 2]

So thank you very much P24 and have a nice end of the day and thank you for everything

[Speaker 1]

See you thank you have a good day you too