

## **Appendix 3. Interviews**

### **3.1 Interview protocol**

#### **Before the interviews**

First, contact with interviewees was made by mail or LinkedIn messages explicitly describing the identity of the interviewer, the purpose of this academic research and the nature of the interest of the interviewer in collecting information through in-depth interviews. Prior to starting the interviews, the interviewer explicitly asked the interviewee: his or her authorization to record the interview for methodological purposes, for transcription, and for the limited use of this research.

#### **During the interviews**

Interviews were systematically conducted in English in order to communicate the concepts of sustainability in a uniform language, similar to the language of the roadmap, annual reports and other reference documents with regard to sustainability.

The interviewer took care to orally remind the purpose of the research and the type of information collected in the frame of this research. Additional information was given to interviewees who needed clarifications on the purpose and methodology of the research or who were interested in its contents.

After interview questions were covered, the interviewer thanked the interviewee for his or her time and opinion. Interviewees were also free to share their questions regarding the purpose of this research and other elements. Also, some interviewees clearly shared their interest in the results of this research.

#### **After the interviews**

After the interviews, the interviewer took care to thank the interviewee for his or her participation and requested a written statement from each interviewee including:

- (1) His or her authorization to include a transcription of the interview in the appendices of the thesis and under which conditions, namely the parts that were authorized for analysis and disclosure or that required modifications;
- (2) His or her authorization to disclose his or her identity in the thesis.

In order to make these decisions, a transcript of the interview was made available to the interviewee if requested.

### 3.2 Interview guide for non-contributors

Aside from factual information, due to the reputation of their company or due to their indirect involvement in the Roadmap for example through relationships with its contributors, some opinions disclosed cannot be made under the name of the company and therefore represent the personal opinion of the interviewee.

The interviews are semi-directive. In order to foster discussion and debate, the questions remained open. The interviewer nevertheless took care to challenge the opinions of the interviewees when relevant, namely when there was an academic or intellectual interest in doing so.

The structure of the interviews was also submitted to variations in order to allow the interviewee to freely volunteer information on relevant topics for the research.

#### Topic 0. Clarification and contextualization of the academic research

0.1. Identity of the interviewer

0.2. Description of the research

0.3. Description of types of information the interviewer is willing to collect

#### Topic 1. Identity of the interviewee and company

1.1. Identity of the interviewee, position, company

1.2. Sustainability and SDGs approach and initiatives within the company

1.3. Sustainability tools used within the company and potential collaboration with competitors to create them

#### Topic 2. Opinion on the Roadmap

2.1. Opinion on the purpose, audience, contributors' identity, methodology, contents of the Roadmap and identified rooms for improvement

2.2. Usefulness and relevance of the Roadmap for the interviewee's company

2.3. Usefulness and relevance of the Roadmap for the industry, for other stakeholders

#### Topic 3. Opinion on intra-sector collaboration towards the integration of SDGs

3.1. Opinion on the importance and role of this type of collaboration towards achieving the SDGs

3.2. Willingness to take part to/ to initiate similar initiatives in the future

3.3. Opinion on replicability of this type of tool by other industries

### 3.3 Interview guide for contributors

Aside from factual information, due to the direct involvement of the contributors in the creation of the Roadmap, some opinions disclosed cannot be made under the name of the company and therefore represent the personal opinion of the interviewee.

The interviews are semi-directive. In order to foster discussion and debate, the questions remained open. The interviewer nevertheless took care to challenge the opinions of the interviewees when relevant, namely when there was an academic or intellectual interest in doing so.

The structure of the interviews was also submitted to variations in order to allow the interviewee to freely volunteer information on relevant topics for the research.

#### Topic 0. Clarification and contextualization of the academic research

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1.1. Identity of the interviewee, position, company

1.2. Sustainability and SDGs approach and initiatives within the company

1.3. Sustainability tools used within the company and potential collaboration with competitors to create them

#### Topic 2. Involvement in the creation of the Roadmap

2.1. Description of the purpose, audience, methodology, contents of the Roadmap

2.2. Nature and motivation of the contribution of the interviewee

2.3. Collaboration and decision-making processes with the other contributors

2.4. Next steps of the Roadmap

#### Topic 3. Opinion on the Roadmap

3.1. Opinion on the purpose, audience, methodology, contents of the Roadmap and identified rooms for improvement

3.2. Usefulness and relevance of the Roadmap for the interviewee's company

3.3. Usefulness and relevance of the Roadmap for the industry, for other stakeholders

#### Topic 4. Opinion on intra-sector collaboration towards the integration of SDGs

4.1. Opinion on the importance and role of this type of collaboration towards achieving the SDGs

4.2. Willingness to take part to/ to initiate similar initiatives in the future

4.3. Opinion on replicability of this type of tool by other industries

### 3.4 Interviewees

First, the characteristics and organizational profile of the interviewees' company, association or organization are outlined<sup>4</sup>. Second, relevant interviewee's features are explained, including the participant's position and experience in the company, association or organization, his or her level of involvement in sustainability strategies, his or her role regarding the roadmap, his or her level of knowledge and expertise regarding sustainability etc.

#### *a) Michel Washer*

Michel Washer is Deputy Chief Sustainability Officer at Solvay S.A. As one of the four sustainability directors at Solvay, he focuses on what the external world is expecting from Solvay, including investors, governments and NGOs (M. Washer, interview, March 29, 2019).

His leading role, his expertise in sustainability and his experience in the chemical sector allowed obtaining information on the dynamics of the industry, but also on his opinion regarding the SDGs and collaborations with sector peers. Michel Washer was not directly involved in the creation of the roadmap but was consulted by his colleague, Dominique Debecker, who was Solvay's representative in the frame of the roadmap. This external position enabled the interviewee to have limited bias and therefore to provide a more personal view on the roadmap and on similar initiatives (M. Washer, interview, March 29, 2019).

#### *b) Dominique Debecker*

Dominique Debecker is Deputy Chief Sustainability Officer at Solvay S.A. Dominique Debecker is one of the creators of the SPM (Sustainable Portfolio Management) tool, a methodology which assesses the positioning of a company's product-application combinations towards operational and market dimensions of sustainable development. Today, this tool is widely used and considered as a key tool by a multitude of stakeholders in this sector. Dominique Debecker has taken part to multiple initiatives with sector peers, including with

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<sup>4</sup> For the companies and associations that contributed to the roadmap, a partial description is given in 4.3.3.

WBCSD on projects such as the framework for Portfolio Sustainability Assessments (PSA) or the “Reaching full Potential” project (D. Debecker, interview, April 5, 2019).

Dominique Debecker was the representative of Solvay during the roadmap process and had the role of co-chair. The interviewee’s central role allowed collecting information related to the collaborative process of creating the roadmap, the methodology used and obtaining clarifications about the roadmap’s main target audiences, its intended purpose and use and the importance of intra-sector collaborations towards the SDGs (D. Debecker, interview, April 5, 2019).

*c) Jean-Claude Pierre*

Jean-Claude Pierre is the Group Chief Executive of Scott Bader Co. Ltd. since 2015. Founded in 1921, the company manufactures products for the Composites, Advanced Composites, Adhesives and Specialty Polymers markets worldwide. It employs almost 700 people worldwide with sales amounting to EUR 230 million. The company revolves around 3 pillars: ecology, humanity and business. The group formulated in 2017 the 2036 Vision, based on the “Natural Step” which includes 7 strategic goals encompassing issues such as circular economy, environmental protection, and partnerships (Scott Bader Company Ltd., 2017).

Jean-Claude Pierre is part of the company since 2015. He acquired experience in the chemical sector in different companies including BASF and he holds a PhD degree in Organizational systems. In his functions, Mr. Pierre has been proactively interacting with potential value chain partners in order to bring increased awareness on environmental matters. As the Chief Executive of a company considered as medium-sized in this sector, the input of Jean-Claude Pierre allowed to understand the usability and applicability of the roadmap to other types of companies. Moreover, since the company has always had a deeply embedded sustainability strategy, it was interesting to analyze how the roadmap could be used as a complementary tool to this internal strategy, which is not yet including the SDGs (J.-C. Pierre, interview, April 16, 2019).

*d) Anonymized interviewee*

This anonymized interviewee is the Chief Executive Officer on the country level of a large international chemical company. The company on the country level is considered as a small company. Sustainability is one of the fundamental aspects of the company, which is mainly reflected in their participation in the Responsible Care initiative. However, in local branches of the group, sustainability is not considered as one of the priority issues, hence, the branch in which the interviewee operates is at the awareness phase regarding sustainability and the SDGs (Anonymized interviewee, interview, April 18, 2019).

The interviewee has acquired many years of experience in the chemical sector and has interacted with big players on an international level. He is also the president of his country association for chemical sector. As such, he is one of the 30 national representatives at Cefic. Because of the indirect link to the roadmap (via Cefic), the limited awareness of the tool, the maturity level of the company regarding sustainability and its size, this interview provided new perspectives on the roadmap, its usefulness to other types of companies at early maturity phase for example, the needs of these companies regarding the SDGs, and the involvement of smaller companies in the creation of the roadmap (Anonymized interviewee, interview, April 18, 2019).

*e) Ann Dierckx*

Ann Dierckx is the Sustainable Development Director of Cefic since 2017. She has been part of the association since 2008 (A. Dierckx, interview, April 18, 2019).

She participated to the roadmap exercise as a representative of Cefic and had a project member role. The interview with Ann Dierckx allowed understanding the specific role of associations in the creation of the roadmap and their interactions with members in the frame of this tool. Moreover, as having a leading role in a chemical sector association, she gave her opinion and insights on the importance of collaboration between sector peers towards the SDGs and the position of associations in this context (A. Dierckx, interview, April 18, 2019).

*f) James Gomme*

James Gomme is the Director of Sustainable Development Goals at WBCSD. He has acquired experience in the chemical sector and in sustainability, initiated and let multiple projects at WBCSD (J. Gomme, interview, April 30, 2019).

James Gomme is the main contact for the SDG Sector Roadmaps initiative. Therefore, this interview enabled obtaining the insights and opinion from an initiator of the roadmap on the rationale behind this initiative, the next steps and monitoring processes put in place, the roadmap projects for other industries, as well as the justification of the decisions made in the process of creating the roadmap (J. Gomme, interview, April 30, 2019).

*g) Luís Araújo*

Luís Araújo is the general director of APQuímica, the Portuguese national association of reference for the Chemical sector, Petrochemical and Refining. In Portugal, the chemical sector represents an annual turnover of EUR 11 billion and provides 52,000 direct and indirect jobs (Cefic, 2018). APQuímica currently has more than 60 members, including large companies, SMEs, startups, universities and other entities. Its mission is to contribute to the sustainable evolution of the activities of its members, the strengthening of their competitiveness, and the continuous improvement of their practices, highlighting three axes

that are: competitiveness, sustainability and innovation (APQuímica, 2019). Among other actions, the association takes care of disclosing and promoting the principles of Responsible Care to its members and participates in the definition of the economic policy related to the general development of the Sector as a member of Cefic (L. Araújo, interview, May 3, 2019).

Luís Araújo is the Portuguese national representative at Cefic. Because of the indirect link to the roadmap (via Cefic), the maturity level of the association regarding sustainability and its central positioning in the national landscape, this interview enabled knowing the opinion of a national association on the roadmap use and applicability to its national peers and the complementarity between the roadmap and the already implemented strategy (L. Araújo, interview, May 3, 2019).

*h) Linden Edgell*

Linden Edgell is ERM's Global Sustainability Director. She is also leading a key program of ERM's new global strategy. Linden Edgell leads ERM's engagement with leading sustainability and business organizations including GRI, UN Global Compact, WBCSD and others.

Linden Edgell directly participated to the roadmap as one of ERM representatives and had a coordination role. The interview with Linden Edgell allowed obtaining information from the perspective of an external party, as ERM was hired by WBCSD for the purpose of the roadmap initiative. Moreover, as a coordinator of the project, Linden Edgell had additional information on the collaborative process of the roadmap and the SDG Sector Roadmaps methodology.

*i) Anonymized project member*

This project member is Global Sustainability Director at one of the companies contributing to the roadmap. The interviewee has an extensive knowledge and experience of the chemical sector and is responsible for sustainability management in one of the company's business units. The interviewee has past experience of collaborations with WBCSD and other sector peers, through the Portfolio Sustainability Assessments methodology for example.

The interviewee directly participated to the roadmap as a project member. This interview allowed gaining additional insights on the motivations of the company to contribute to the roadmap, the interactions with its sector peers, the usefulness of the roadmap within the company and to other stakeholders, and the further steps of the roadmap.

*j) Mark Didden*

Mark Didden is Sustainability Reporting Manager at AkzoNobel. Mark Didden previously worked at WBCSD and has participated to multiple initiatives linked to the SDGs, including the SDG Compass.

Mark Didden participated to the roadmap initiative as a co-chair. Because of this very specific position and of his keen interest and expertise in the SDGs, the interview with Mark Didden provided information on the collaborative process of the roadmap, the differences between the role of co-chair and project member, the decision-making process, the roadmap's target audiences and the further steps of this initiative.

### 3.5 Interview transcripts

#### a) Interview transcript 1: Michel Washer

|                           |                                     |
|---------------------------|-------------------------------------|
| Date of the interview     | 29 March 2019                       |
| Duration of the interview | 58 minutes                          |
| Role in the Roadmap       | External                            |
| Name                      | Michel Washer                       |
| Company                   | Solvay S.A.                         |
| Function                  | Deputy Chief Sustainability Officer |

#### **Would you like to introduce yourself?**

My name is Michel Washer, Deputy Chief Sustainability Officer for Solvay; “deputy” because we are 4 sustainability directors within Solvay. Pascal Chalvon is the head of sustainable development and energy, a section called like this because it also includes management of energy, energy purchases etc. I look at investors and “planet”, namely government and NGOs; in other words, the Annual report, sustainability rating agencies questions, and what the external world is expecting from Solvay. That includes the materiality analysis. Dominique Debecker looks at customers and suppliers; it’s more about the products we manufacture and sell; “are we part of the problem or are we part of the solution?”. He’s the main contact for WBCSD. Alain Michel looks at employees and local communities; how we embark everybody inside the company, how what has been decided on board level can be reflected on the shop floor and the impacts that we have.

#### **How would you assess the position of Solvay in the industry with regard to sustainability?**

It depends. Pioneer can be defined in different ways. If you define pioneer as being the first to implement something, then we are not. If you define it by being the first to implement something in a way that is not greenwashing, then yes, there are areas where we can be pioneers. I am particularly proud with the way we address our portfolio, the methodology that we call “SPM”, Sustainable Portfolio Management, which is publicly disclosed on the website of Solvay. There, we have established the link between sustainability ranking and growth: what we rank as solutions are 3 times the average growth of the group, and what we rank as challenges have negative growth. This is really a risk and opportunity analysis tool, rather than a greenwashing tool.

#### **How would you define the relationships with your competitors in the context of sustainability?**

In my personal opinion, competitors would not be my priority. My priority is the interactions with stakeholders such as customers, employees, investors. My competitors, on the contrary, the more I differentiate from them, the better (including in terms of sustainability approach).

On the other hand, sustainability is a very dynamic discipline; there is a consensus which is a value creation story, with a definition of value that still needs to be ready. It means that there is work to do, a need to update standards. Solvay is going to contribute to that, but it is more interesting in that collaboration to try to understand where it is evolving to and anticipate movements, than to apply standards that, by the day they come out, are a compromise.

**As you said, the standards are not yet ready. However, it is necessary to allow comparability between companies in order to assess by 2030 the progress of the industry and the state of the art. It is a balance between establishing standards and differentiating yourself. For example, this roadmap has guidelines, but each company has its own focuses, sometimes slightly different.**

It is indeed the problem of the job that can be done in federations: what comes out from a federation is a compromise between those who want to be pilots and those who hold for no change. It does not mean that we should not do it. If we look at the chemical industry, it will be disrupted in the coming years with the move to a low-carbon economy, with the move to circular economy. I am convinced that it will be disruptive, but federations may try to show it as less disruptive as it could be. It is not easy to manage when you want to drive change.

**You were talking about SPM. Are there other tools that you are using that have been produced with collaborators, partners or peers?**

SPM has been prepared with the collaboration of consultants: TNO for the vertical axis and Arthur D. Little for the horizontal axis. We did not work with competitors at that time.

What we did with WBCSD, was to compare the methodology that was used by different chemical companies and push to define minimum quality criteria that methods should have, so it is not a greenwashing tool, but really a risk and opportunity assessment. The natural reflex of any business is to try to find a methodology that proves that their products are good products, instead of doing a critical analysis of where we are and where we need to change.

**On top of SPM, is there any other tool you use on a daily basis?**

Nothing that comes to mind. In our job, we do not own any KPIs outside of SPM. It was precisely developed for that. When we talk about diversity or retention, it is for HR. When we talk about emissions, it is for the environmental department. It is always someone else involved in it. What sustainability brings is that external perception: what the stakeholders are expecting from Solvay and not only what Solvay believes it should do.

**Ok. Maybe we can now talk a bit more about the Chemical Sector SDG Roadmap. Please tell me if you are not familiar with some of the questions, I will contact Dominique Debecker for these.**

I will first put some elements of context. SDGs are very interesting to me. As I said, it is a value creation story with a definition of value which is not stable yet. Value is not purely financial value for shareholders, which measures book value, and not enterprise value.

You have 3 models. First, the model of stakeholder value: we create value for each stakeholder; it opens the dialogue, it is the traditional approach of sustainability. The problem is that 2 organizations can define their stakeholders in different ways, so it does not make benchmarking easier. A second model is coming from integrated reporting, which uses capitals (financial, manufacturing, intellectual, human, social & interactions, natural). The advantage is that it uses the language of financial people, so it attracts finance people. There are disadvantages. First, there are capitals for which you don't have recognized indicators (human, intellectual). Second, how many capitals do you need: is it 3 (economic, social, environmental), the 6 of integrated reporting (splitting economic in 2 and social in 3)? That vocabulary makes think that everything can be monetized. Part of the value we create cannot be converted in currency, for example the value created for employees (e.g., working in a nice team, in a nice location, with a job I enjoy) and trust.

Beyond that, the SDGs are coming, and I see them becoming more and more a reference vocabulary. It is probably easier to say the positive and negative impact you have on a given goal, rather than trying to measure capital or value created to stakeholders. I think it will take more and more importance, certainly for Solvay. Until 2 years ago, only governments and NGOs were talking to us about that. For the last 2 years, investors started to talk about that. I expect customers to start talking about it. I would not be surprised if it would become more prevalent. It is not a full framework: the value for customers and investors is not there. But when it is a matter of positive or negative impact, it is the easiest approach. Companies like us don't want to manage multiple frameworks when reporting.

If you want, I can summarize what we did. There were two approaches. First, internally, we have to explain to people that it is not about how you internalize 17 SDGs, but it is about the external impact of Solvay on the rest of the world. Second, we needed to identify the ones on which Solvay had the most impact, positive or negative. We did it at the same time as WBCSD, which was working at identifying those where the chemical industry had the most impact. Dominique Debecker was involved in that job; he came back with the list, we looked at it and made some modifications for us. Although the chemical industry has an enormous potential

impact on water (because it supplies products that allow to clean water and make it drinkable and good quality), we removed water because Solvay itself, outside of our own water consumption, does not have very high impact on water, we are not very present on that market. Therefore, we retained 7 SDGs, that we put back in our materiality analysis, where we identified what is very important for Solvay. At that time, we acknowledged that SDGs are the official agenda of the world (governments, NGOs have agreed where are the priorities) so it was included in the materiality analysis as the expectations of the planet's stakeholders. By reviewing those on which we had the most impact and comparing them with WBCSD, we validated the materiality analysis that we had already made.

**It is true that we can observe some differences between the Roadmap priority SDGs, and the SDGs Solvay focuses on. For example, in the roadmap, the potential of the sector on SDG 4 is considered as one of the lowest.**

Yes, but in our case, our strategy is oriented around what is expected from Solvay beyond being the responsible chemist, so it is about societal action and what we can do in the rest of the world. We believe that we can have an impact in scientific education access.

**What is your contribution to the roadmap?**

My contribution was mainly questioning the areas where we had the most positive and negative impact as we decided before. In fact, this decision was reinforced with the roadmap, so we made the good choices. Regarding last year's report (2017), we used a mapping for which whenever we reported on a topic, we linked it to one of the SDGs, while in fact we should now focus only on these 7.

**In general, how do you think the materiality approach of the roadmap is applicable to companies?**

This can be compared to our activities within Solvay. Some important topics at the group's scale (e.g., GHG emissions) are not material for each process. It is not because it is material at a scale of an industry that it is the same for all elements in it, there can be very important differences that should be recognized.

On the other hand, someone who is looking at comparing chemical industry, pharma industry, automotive industry etc., will find it useful to see where the industry itself, generally speaking, has the most impact.

**Then, the use would be more for external stakeholders (such as investors), rather than industry peers. For people in the industry, it may be hard to see the usefulness of this materiality matrix.**

Having a materiality matrix at the industry level allows to see the differences and shows the necessity to be able to explain why there are differences. For me, it is one of the steps in the validation process of a good materiality analysis.

**On top of that, what does a document such as the roadmap bring to companies?**

With regard to companies, few things. It helps people who don't know the chemical industry understand it a little bit better. It may help in changing some perceptions of the chemical industry. I am careful with that: multinational companies have a bad image. For chemical multinationals, it is even worse. "Just trust us" will not work anymore to engage stakeholders. In the past, people wanted to hear about your commitments. Now, they want to see what you do. Documents like that may help people understand that the chemical industry is moving and changing, but if we really want it to be efficient as a mean of communication, there should be milestones, precise targets, going beyond the current qualitative aspect of the roadmap.

**Exactly. For example, there are lists of SDGs with general appreciation of the industry's impact. But it is not quantitative (which is also a big problem with the SDGs in general).**

It is a difficulty with the chemical industry: it has to transform. In the past, it was supplying synthetic materials that were more performant than natural materials, but very often at the expense of an environmental footprint that was not measured nor considered. The chemistry of the future solves this problem. The industry will have to work to make its own activities circular, but the chemical industry is also the industry of other industries, so we can help the loops of others. Solvay can help companies such as Apple. We can activate circularity in other industries. In the process, the chemical industry will need to acknowledge that some of the current value chains are not sustainable.

It is very difficult to put in a document from a federation that the chemical industry is going to change.

**To summarize, the roadmap is meant to investors or other industries, rather than companies in the chemical sector.**

Where it helps to have this kind of document, is that you can take it and ask yourself "what's in it for me?", where do I fit, where can I do something, where can I act?

The reality is that we should do it even faster than what is said in the roadmap.

**When you see the roadmap as it is now, what areas for improvement would you see?**

My dream would be to see that the industry precisely recognizes that some of the value chains need to transform profoundly and start to address it. Unfortunately, what you hear from federations is more on average. Sometimes, it is not true for all value chains. If the chemical industry does not address this topic itself, legislation will do it. I would like to see more

ambition in these documents. But I agree it is already difficult enough to obtain a document like the roadmap.

**Some critics have addressed this lack of ambition and limited acknowledgement of negative impacts, directly aggregated with the positive ones.**

That is a risky speech. Some impacts cannot be compared. Some choices need to be made, not on the basis of mathematics, but on the basis of human value.

**Is it dangerous as Solvay to share its knowledge with the industry in the context of the roadmap?**

I think not. For example, we shared a lot more with SPM. If you look into it, we can't patent it or forbid anyone to use it. The real value is in what you make out of it. This can also be applied to the roadmap. The value does not lie in the roadmap, but in the exercise you do after: "how does that apply to my company?" "where does the company fit there?". Then you can go one step further and look at where you should be more ambitious to differentiate from your competitors.

The roadmap is something you can start with. But it is not the only one: you have projections from Cefic, Essenscia, bodies producing scenario analysis... So, for me the roadmap is not so needed. What is needed is real action with quantified effect.

**Would you then believe that this roadmap is more useful to companies in the beginning of their sustainability journey?**

Yes, because companies who have already worked and thought about it, who were involved in the preparation of the roadmap, are perfectly aware that it is a compromise. So, by the time it is out, these companies are already thinking about where they can do better.

To someone who does not know where to start, it gives a starting point. Their situation may be a bit different, but at least they can say "this is where I want to fit".

**Would you think that this roadmap is more useful to SMEs?**

What is sure is that there are general principles that apply in chemistry. For me, an approach where you try to understand who you are impacting the most, what can help you (stakeholder expectations followed by a materiality analysis) can be applied to any organization of any size. The framework used (stakeholder value, capitals, or SDGs) remains opened. Companies are starting with what is happening inside their scope of activities, before looking at the impacts beyond that. That being said, if I had to start from scratch today, I would certainly focus more on the SDGs than on any other model.

**In the contributors, we can find some of the biggest companies in the sector. Do you think that the process would have been more interesting if more diverse companies would have been included?**

I think it would have been more complex and that other bodies are doing that. GRI has work groups of task force with the UN Global Compact including representatives of the industry, precisely to find KPIs for the SDGs which would apply to enterprises, corporations. Because when you look at the 169 targets, these are designed for countries, municipalities, regions, but not for Solvay. Finding the right KPIs that reflect the impact that you have to a specific SDG is not easy. These multi-stakeholder groups, who provide guidance on how it can be applied practically, are elsewhere.

You have the same debate in all industries. Smaller companies say it is easier for large companies because they can afford consultants and put resources on that. But large companies have complexities to manage and when you are a small company on one location, identifying stakeholders, their expectations and measuring your impact is much easier than for larger companies. But if large companies do not explain how they did to the small ones, the industry will not move. It is part of our job to share this knowledge, where consensus has been found, where there are still open questions to SMEs so they can move faster and know where to start. They will have to adapt it of course but it applies to them.

**Although they are presented as distinct, SDGs are interlinked. Therefore, what do you think about the approach of only focusing on some SDGs, despite the impacts they may have on others?**

You always have to make compromises in your decision-making process when it comes to sustainability. What is good for the environment is not always economically profitable. Managing that balance is not new, therefore, the fact that it is in the SDGs (or in any other model) is not a difficulty to me.

We need to be careful about talking about both positive and negative impacts and if it is important or not, and not do SDG-washing (where you only talk about the ones where you have positive impact and avoid the ones where you have negative impact).

Where we are in social and environmental topics, no one has decided what is an acceptable target (e.g., ideal diversity). The GRI has issued two documents on the targets that companies can apply and what frameworks they can use. This is perhaps more useful than the SDG Roadmap towards this purpose.

**Do you think it provides more practical and tangible information?**

Yes.

**In general, if we take this type of partnership initiative with WBCSD and peers, do you think this is an efficient way to achieve the SDGs?**

I am optimistic about it. The 7 MDGs (2000) to be achieved by 2015 were considered as utopia but in 2015, some of them were achieved and others had known substantial progress. I think that now that everybody is paying attention to the SDGs, it will move faster. Some of them will not be achieved, others may be achieved but I am sure there will be progress everywhere.

Partnerships are required because whatever the issue you want to address today, there is no company in the world with the financial means and technical capabilities to solve it. Circular economy needs to be discussed between all entities involved in the value chain. Today, when a new product is conceived, we must take into consideration the impacts on each step in the value chain, which means discussions with partners within and outside the value chain.

From a very personal opinion, stars and brands may be more in the light than groups. If Solvay wants to say something important, the press will come. This is not the case for Cefic because it is not a brand. What works in communication today is that individual companies can have more impact than federations.

Partnerships are still needed to have a team working. But it is team “value chain” rather than team “chemical”.

**The real value of partnerships is then hidden, it does not show the brand value.**

It is more important to have partnerships with suppliers and customers than with other players in the chemical industry.

**Do you think a roadmap can also be done for other sectors?**

Yes. The results will probably also be a compromise. But the exercise will be the most useful part. The document is not useless but not critical enough.

Having industry players sitting in around the table and thinking about how we see the future of the industry and the impact the industry can have on society; any industry is able to do that.

**What are the next steps for the roadmap?**

I don't know. But updates are not needed on a yearly basis, maybe even 3-4 years. But indeed, a good update would be to address both positive and negative impacts and describe what has been achieved by the chemical industry.

*b) Interview transcript 2: Dominique Debecker*

|                           |                                     |
|---------------------------|-------------------------------------|
| Date of the interview     | 5 April 2019                        |
| Duration of the interview | 78 minutes                          |
| Role in the Roadmap       | Co-Chair                            |
| Name                      | Dominique Debecker                  |
| Company                   | Solvay S.A.                         |
| Function                  | Deputy Chief Sustainability Officer |

**Could you please introduce yourself and your position?**

I'm deputy head in sustainability, leading the sustainability efforts in the business dimension. We had an intuition that has been proven by figures that, if you take sustainability to business decisions, you enjoy a superior growth and performance. This started more than 10 years ago, and we developed a system to measure. You take more robust decisions if you take into account the facts and the elements that support this decision. We implemented the system and changed it so that it becomes progressively natural for innovation people, marketing people, salesforce, procurement to take sustainability decisions in their own business processes. We make them more impactful and more robust in their processes.

**You mean that you really make sustainability tangible for these people, not on a too high level.**

It means staying relatively in their core, embedded into their daily operations, whatever it is. When it comes to innovation, it includes the ones leading and participating in the project but also the ones managing the portfolio.

**How would you assess your company's position in the industry compared to other industry players when it comes to sustainability?**

It is difficult to say. I think we are among the leading companies in sustainability. There is still a lot to be done. Nevertheless, we have good practices and the SPM system, the tool supporting our decisions, which is probably among the best practices in the industry in general, not only the chemical industry.

**How would you define the relationships with your competitors in the context of sustainability?**

Chemical industry is not simple. You produce chemical products, but you cannot do that alone. You need products from other chemical companies and you also sell products to them. Competitors are suppliers and customers of each other. The relationships are not to be seen only

as competition, but also where we can reinforce sustainability globally. When it comes to sustainability, we share good practices in terms of how and what to do.

That is the reason why WBCSD exists; the largest community that companies represent is in the chemical sector. They are leading us when it comes to certain topics. I do not see this as competition; I do see this as joining forces.

**It comes back to your interest in SDG 17 in Solvay, one of Solvay's main focus.**

Yes. SDG 17 is not only about joining forces, but also about having an impact in delivering the SDGs. If you think of the SDGs, it is a mapping made by United Nations and by more than 3,000 stakeholders. Together, they collectively produced a list of the topics that are the most important and material in sustainability, when it comes to the Earth, the citizens. This led to 17 SDGs and 169 targets and KPIs. Every country has a big commitment and has to report the progress that is made. The materiality analysis has been done for the planet, which means, this is where the transformations are likely to happen. We do have now a framework that describes what is the collective objective we should look for. You can also perform a materiality analysis on your side, saying "I take this as a baseline" and looking at where you, as an individual or company, can have impact in delivering these SDGs, which is different from the SDGs that are important to you.

For example, SDG 4 is very important for Solvay. The activity of Solvay is very aligned with that: we are able to deliver impact regarding this SDG. That is also what we tried to do with the roadmap with WBCSD. In Solvay, I have been quite instrumental in scoping all that in the beginning: defining the SDGs where we can have an impact (positive or negative) and at the same time, develop a better business for the companies that decide to move that way down.

Looking at it from Solvay's perspective, it helped us to discuss from another perspective about the SDGs.

When SDGs showed up, it was seen as a strange animal: everybody was wondering what to do about it. If you want to understand, you need to disarticulate the system, understand what is behind, look at it at the target level, understand what it is and then develop your own action plan. We decided to join forces and common intelligence in the chemical industry (companies and chemical associations) and we came up with a list of actions, business opportunities.

**What other tools did you develop with WBCSD? Were they also developed with competitors?**

In the chemical industry, we realized that we were a bit unwise regarding the reporting on CO<sub>2</sub> emissions, the measurements of sustainability criteria for products; each of us had its own methodology. Therefore, we joined forces to define collectively the guidelines and rules. For

example, we developed guidance with science behind it to agree on how we count this to avoid CO2 emissions. It is useful to have this kind of platform to have these discussions.

We also contribute to other programs, such as Reaching full potential. That was about the belief of the chemical industry that we can deliver solutions that are technically and economically viable, but we feel like they are not adopted as they could. We considered what we believed as barriers of adoption and then reached out to other sectors (e.g., building industry) about these barriers that we think we need to overcome. We discussed with that sector and built up progressively with them a set of actions to undertake together in order to get actors aware of the barriers and develop other instruments.

**Regarding the roadmap, how did Solvay get involved?**

WBCSD is deeply involved in early stages in the development of new concepts. When SDGs were developed, WBCSD was consulted but also looked at it with the independent body Sustainable Business Commission and developed “Better Business, Better World”, which is all about unlocking business opportunities and potential because of the necessary transformation that will come progressively out of the SDGs framework. You get that logic of materiality analysis, a transformation that is absolutely required. From a business perspective, it means that the probability that this is taking place is higher than wishful thinking.

Afterwards, you implement it with a logic by sector: what are the impacts we can expect from the business and what are the impacts the sector will have? They proposed that to their members, including Solvay, who at that time was part of the executive committee. This has been discussed with us and other members of the Board to “take the temperature”. We came together with AkzoNobel. AkzoNobel and Solvay took the lead in shaping the project with the help of ERM and WBCSD and we were the first sector to implement it.

WBCSD reached out to other sectors. A sector means a set of companies within WBCSD in the same sector. It is not representative of a sector; it is representative of the companies that are part of WBCSD. Collectively, I think we are representing 10% of the turnover in the overall chemical sector. We do not aim at being representative of the chemical industry.

**Could you summarize your company's contribution to this tool? What is the difference between your contribution as co-chair and other contributors’?**

This is typical of WBCSD governance: when you have a project, there are difficulties to discuss with unprepared words. Therefore, you have few companies (co-chairs) taking the coordination role, spending more time and resources in understanding the topic, preparing the meetings and the calls to prepare the ground so that it can be discussed in larger groups.

You have companies from Europe, Japan, USA where the cultures are completely different. For example, the climate transition in Europe (costs for carbon emissions) is not the same as in Japan and in the USA. You need to take into consideration that every part of the world has different systems when it comes to the discussion. By preparing these discussions, you can have very efficient meetings where you can discuss about the important topics and not about the difficulties related to regions.

It is not a leading role, but it is much more about putting resources on the table to prepare the meetings, to select the consultancy that will provide the work etc. so that collectively we are quicker and have better results. As a reward of that, you have opportunities to speak, as you can see quotes of Solvay and AkzoNobel in the report.

### **How did the meetings happen?**

It was a combination of small meetings (monthly calls between WBCSD, ERM and the two co-chairs), follow-up on the actions, 3 physical meetings (where contributors were present) and several calls. Afterwards, a document was produced, and, on that document, input was requested from contributors.

Methodology-wise, it starts first with a questionnaire that is sent to each of the members. The questionnaire was at target level (169) to know for each of these targets if this target is relevant or not for the chemical industry, the impact anticipated, the timeframe, the impact for the business, the difficulties etc. Being through that process, we end up with a list of targets that are more meaningful than the others, meaning that we expect these to have the highest impact at the same time as we expect to have larger business rewards.

Regarding the interdependencies between the SDGs and the targets, we forgot about it; we knew about them but did not realize what does that mean exactly. We need to look at it from a completely different perspective, stepping back on what has been produced on those targets that are more material than others. We take them, put them in limited ecosystems and through the ecosystems, we decide tangible actions, impact opportunities, we list them and make the link back to the target and SDG on which that impact will happen. It gives ultimately a very appealing and secondary benefit. It is already action-driven, it is a business opportunity. It is much more connected with the daily business because it is described as a business opportunity.

### **During the physical meetings, were all contributors present?**

Yes, either physically or by call.

### **How were the contributors chosen?**

It is on a voluntary basis. We invite potential contributors; some show up, some do without you asking and some do not. Ultimately, you end up with a set of companies because it is a fee,

which is a good thing, because you think twice before engaging you and your company. There were also 2 chemical associations (Cefic and ACC). They were involved in the process but not representing all their memberships, which is quite unusual and was tough for them. They cannot ask the permission of all their members regarding the publication of the report; which can be a quite unfortunate position, but they managed it well. It is also quite useful for them to participate to the roadmap to provide it to their members.

**Did some potential participants refuse to contribute? If yes, why? It may be surprising that some big players and members of WBCSD, such as BASF, are not present.**

You should probably ask them directly. BASF was involved in the beginning in the scoping, during a preparatory meeting where the ambition is shared with a large number of companies, including them. They then decided not to join. Most of the time, if Solvay does not participate to a project, it is because we have limited resources and we need to define our priorities. Similarly, BASF, Dow, Dupont are very large players but are not involved in every project.

**You said that the goal was not to be representative. But did you still have some criteria and goals to respect? For example, regarding the diversity in nationalities?**

As for every project, we wanted to be as representative of the planet as possible. We do not deliver on that; for example, there is no company from India. But the more diverse we are, the better the results. It is also more complex, but I prefer largely to have much more diversity even though it encompasses more complexity.

**We can see that contributors are mainly big players of the industry. Was it ever considered to include SMEs in the process?**

Actually, they were the 2 chemical associations. WBCSD is a not-for-profit organization. The annual fee is high and is therefore more affordable for larger companies than for SMEs, even though there are special conditions for them.

**This problem was thus more or less solved by including the associations.**

It is also the reason why we were fortunate to have them. It is also why these associations were put in a difficult position because we asked them to provide the average view of the chemical industry in their regions. The chemical industry is very diverse per se: you have Commodity, specialty, pharmaceutical, plastic-focused players etc. Ultimately, you realize that the chemical industry cannot be represented by large companies that have also specialized businesses; they cannot be representative even though they are very big. It is a very fragmented industry.

**As you said, it is more of a product competition. You are also clients and suppliers of each other sometimes.**

It is not sometimes; it is always. When you look among our top customers and suppliers, you will find chemical companies. By nature, it is an industry where you join forces.

**How did you reach agreements? Did you have to vote?**

It is mostly discussions. Remember, each company is going through the 169 targets, saying if it is important/ material or not. We therefore started with facts; as a company, you fill the questionnaire and decide. Ultimately, during discussions, there is no need for voting because we have factual elements, and of course we also had sensitivity analysis. There are no conflicts or disagreements to solve. Each of the company and association found what they expected and wanted to count in the outcome. We were quite strong about it: it is not because we take part to it that we have a commitment to do the same. We spend time, resources and energy to identify through our knowledge what would be the right thing to do.

**If I understand it correctly, when we look at the impact pathways, every company and association completed its opinion according to its knowledge and experience and talked about it in a roundtable and agreed, is that correct?**

Exactly. It is a natural process, a co-construction rather than competition.

**To what extent is the tool useful to your company but also for others?**

It is useful to put flesh on the bones. At Solvay, we have spent some time between us to list 7 SDGs that we think are most important for the company based on the materiality analysis and the values of the company. We came out with a subset of these 7 SDGs, 4 or 5, on which we can have an impact if we do the right thing. With the limited resources we have, we decided we would go for opportunities in SDG 8 and would have a proactive role in promoting awareness etc. As a consequence, we have recently taken a leading role (proposed to co-chair) in a new project in WBCSD which is about the tool, in between experts to share discussions and to support each other in accelerating the adoption of that kind of methodologies. It is a tangible, concrete example of what you are doing.

**For example, at Solvay, you had already done the process of materiality and impact analysis.**

Yes, it is the same for the other companies.

**So how is the roadmap useful for Solvay?**

The contents are useful, rather than the document. When you have not-for-profit organization such as WBCSD, the visible part of the work that is done in those organizations is documents that they produce and using the document as support for communication is a vehicle for NGOs and for changing things. The document itself is the output of a working group. In that case, the report itself is a vehicle to reach out to others to explain what we have done. The real goal is to

put into action in order to deliver the SDGs. On top of that, a microsite has been developed to report on the follow-up and progress this report, which is unusual at WBCSD.

**I have noticed there would be working groups to monitor the progress of the roadmap. Is it ongoing?**

There is an SDG body program at WBCSD which is monitoring at the same time as duplicating the work for other sectors, such as the utility, agricultural, cement sectors... However, monitoring progress can be slow. If you look back at the website, there will be a link to other initiatives.

**Is there a willingness to further improve the roadmap or update it?**

It is not planned to be reviewed, because the SDG framework will not change. It is likely that the impacts of the chemical industry will not change.

There are reasons to report and take action in the case we do not deliver as we want. This pushes to ensuring as much as I can that this is not vanishing progressively. The targets are there, and the results are supposed to be delivered by 2030, which requires the roadmap to still be used in the next years.

**Despite the fact that you cannot reach as much representativeness as you would want in the roadmap, do you believe that it is representative enough to stay like this until 2030?**

Yes, absolutely. You have a very limited number of companies and associations. We did the job, which is not perfect, but we believe that we are representative to a certain extent of the chemical industry. And we are calling for action in order to see where we can join forces, get more resources, more activity in delivering the SDGs with a real impact. We have identified business opportunities that are good for the chemical industry and the business.

**So, do you see any particular rooms for improvement or limits to this tool?**

There is always room for improvement. But the real interest is to be in the action and not to aim at a perfect document with high representativeness of the industry everywhere in the world. What we have developed collectively is good enough to start to take action.

**You were for example talking about the interlinkages between the SDGs. Is it a problem of the roadmap, or do you think it is solved?**

For me, it is not a problem at all. It is something we learned in the process. It is difficult to realize what interdependence means in practice.

**In your opinion, do you think the roadmap is useful as much for large companies as for SMEs?**

Yes, absolutely.

**Do you think this tool is aimed at all companies of the sector, but also investors?**

No, I do not think it is aimed at investors. It is aimed at the industry but also other industries. Chemical industry is the industry of other industries; chemicals are everywhere. This leads to discussions where we saw that we have things in common and that we can reinforce each other and accelerate the business conditions needed.

**Who decided about the structure of the document?**

It is mostly ERM and WBCSD. The framework of sector roadmaps was edited by WBCSD at the same time as the one for the chemical sector. Timewise, they had a big idea, then reached out to companies, and we started to implement it. Then, process-wise we tested it in the chemical industry and the methodology was validated. Then, the document on guidance was produced and few months later, the contents for the chemical industry were published.

**Do you believe this type of knowledge partnership is an efficient way to achieve SDGs by 2030?**

This is absolutely critical to achieve it. If you look at the SDGs, everybody agrees that it is needed, but most people and companies think that it is not clear what to do. A very large number of companies are taking SDGs now as a successful framework that has a huge and incredible substance. MDGs were known by few people. SDGs are seen everywhere, such as the logos. Numerous companies are reporting with the logos. The success of the SDGs is so huge that you have to show that you are connected to it.

If we believe this framework is very important, we need to align it with business decisions, meaning that we have to identify how to have really good business return and impacts on delivering the SDGs. If both conditions are not met, there is no chance to deliver. Alignment between what is requested and the purpose of the company is crucial. That leads to the exercise to materialize what is important but also where companies can have an impact, either positive or negative.

Allocate your resources where it is good for the company and for the rest of the planet. If you allocate the resources where you have high demand, the probability to have superior performance is higher. This is also what investors are looking for, but SDGs are too complex when it comes to discussions with investors. That document may be helpful to engage discussions with investors, to show impacts and business opportunities of the chemical sector related to SDGs.

**Do you think that the specific competition dynamics of the chemical sector made the roadmap possible, therefore making it more difficult for other sectors to do the same?**

No. Sharing insights on barriers of common interest in sectors is good for everyone. It is not about competition, but much more about looking in the same direction, having things in

common and having the need to join forces because it makes their lives easier and it makes what they implement in their strategies and where they allocate resources more meaningful.

We are competitors, customers and suppliers, which makes it different from other industries (such as forestry), where you do not have the same relationships supplier-customer. But for any sector, there are many things in common related to sustainability.

*c) Interview transcript 3: Jean-Claude Pierre*

|                           |                       |
|---------------------------|-----------------------|
| Date of the interview     | 16 April 2019         |
| Duration of the interview | 42 minutes            |
| Role in the Roadmap       | External              |
| Name                      | Jean-Claude Pierre    |
| Company                   | Scott Bader Co. Ltd   |
| Function                  | Group Chief Executive |

**Could you please introduce yourself?**

I joined Scott Bader in 2015. I was very interested in joining an organization with a very different governance structure which has been owned by the employees since 1991, which is quite unusual. The notion of sustainability was already embedded in the Constitution of the company. We have been at the forefront when looking at the humanity aspect of sustainability. The company also moved from London to other lands because people anticipated to grow crops and derive biochemicals. I try to bring this company to be a very sustainable company through the three pillars: People, Planet Profit that we call Ecology, Humanity and Business. It is the same principle, but we prefer to talk about the three-pole top line rather than the three-pole bottom line, because the latter has the meaning of being the consequence of something but the three-pole top line means that we take care of the 3 elements upfront. Part of our mission is about balancing with care our decisions between our pillars.

We have developed sustainability balance scorecard, which is probably 30 years old. We have added the humanity and ecology aspects in a more prominent way, so we have business with 4 processes plus ecology plus humanity to demonstrate whether or not we are including these elements in our decision-making processes.

**It is very interesting to see how proactive you are regarding sustainability and that you understood it so early. Could you tell me more about the sustainability strategy and initiatives in your company?**

For years, we have implemented “random” initiatives to reduce waste, save energy at local level. We have not done much on the product level, we just followed the regulation.

In 2017, we have developed a vision towards 2036, which is basically for us to be carbon-neutral and bring value to society while unleashing the potential of our people. From that, we derived 7 strategy goals (c.f. website). Now, all of our projects are linked to one of the 7 strategy goals. That is how we are structuring our actions to make sure we are moving towards our

targets. So, we have a sustainability balance scorecard that we review every month at a very high level/ strategic view. We are testing now some communication mechanisms to make sure that people see the link between what we do every day and how we can contribute to this vision. That is one of the biggest challenges nowadays, to show to people how we are contributing.

We have a number of projects, for example we buy renewable energy, we try to develop our own solar farms, we have installed solar panels and other basic things.

On the product side, we have taken a different approach where we are really trying to take the lead. We have developed the first product which is with 30% bio-derived contents (which is not coming from food and therefore not impacting the food supply). We are also developing new partnerships with suppliers and customers because we believe that success will be across the full value chain because the problems are too complex to be solved by one player.

More and more people understand that we have a responsibility and an opportunity to take the lead.

We can use sustainability as a way to drive innovation. Being innovative is being creative. You are creative when you look at things from a different perspective. When you look at your business from an environmental perspective, it is unusual; normally, we don't do that. De facto, you are becoming creative and you are developing innovation.

Now, I am meeting myself CEOs from other companies and say that we need to work together on that and make understand that their future is at risk. I started this proactive search of partners one year ago. In the beginning, it was very difficult because the industry is not the most aware. However, things are changing, mainly from a regulatory point of view, because the people realize that the landscape is moving very quickly. Therefore, I often use this perspective to communicate sustainability to make understand others that the products they currently buy from us will not be available in the next years because the raw materials will not be available anymore.

**You were talking about the balance scorecard. Do you use other tools and methodologies to define and implement your sustainability strategy?**

We have done a materiality analysis. We have worked on our priorities and our roadmap. We have defined waves of initiatives. Wave 0 was defining the roadmap. Wave 1 was getting our things in order. When we thought about pioneering the circular economy, in the first wave, we asked ourselves "What does that mean for us?", "Can we buy energy from renewable sources before we potentially have the opportunity to produce our own?". Wave 2 is about building the case for profitable sustainable development. Wave 3 is about taking the lead by 2025.

We have used “Natural step” as a key framework (Swedish NGO) with principles of sustainability. We have now trained more than 400 people with that framework. This is really what guides us in what we do.

We have linked our activities with the SDGs. The SDGs are a good intention, but we need something behind.

We are about to use Eco-Vadis (also called CSR framework), geared to what the chemical industry does, such as the Responsible care. For us, Eco-Vadis fits us better in terms of what we believe we should be doing. It also allows us to assess our suppliers and what they do in terms of child labour etc.

We have contemplated the possibility to use B-Corp. They have realized that the B-Corp framework is the more scalable framework to deploy the SDGs. At this point, we do not think that could help us, also, it is not free of charge.

**You were saying that you linked your activities with the SDGs. Is this made public?**

Not yet. Because we need to do some more homework to claim how we connect them to our strategy goals. We came up with 5 SDGs.

**Do you use the roadmap to do this exercise?**

No. We use our experts from Natural Step. We also have the head of regulatory affairs who has been working on non-financial reporting frameworks in the past.

**What made you decide not to use the roadmap?**

The SDGs are for us about external communication rather than internal. What is internal to us is our vision and the roadmap we created based on the Natural Step.

**In your opinion, to what extent is this tool applicable to your company?**

It is complementary to our internal strategy. There is something missing with the SDGs in how we apply them. From the base of the Natural Step, we are now trying to integrate and link them, but we have not tried from the SDGs downwards because there was something missing for us.

**Do you think the roadmap provides a realistic and comprehensive picture of impact opportunities?**

It is very high-level. An implementation framework is missing.

**Do you think the roadmap provides a realistic and comprehensive picture of the industry?**

I would say yes. There are a number of things, not all are applicable to each company, although the chemical industry can probably address all of them. It depends on the targets you have and the products you offer. It is comprehensive enough to cover the whole chemical industry.

**Do you think this tool is targeted to both large and small companies?**

It should apply to everybody, but I think there is perception that it applies more to bigger companies. Probably also because the United Nations also give that perception. Nothing comes to my mind when thinking about if small companies are using it.

Another good point is that it is written in a very easy language, it is also very concrete. Therefore, I would argue that the way it is written could apply to any company.

**Also, when you see the contributors' names, you clearly see big players of the industry.**

**Do you think that involving smaller companies would have led to different outcomes?**

Probably not. If it is coming from lower level, it may be less efficient. The way they have done it I think is pretty good, so it should not hinder smaller companies to embark on it. What small companies are challenged with is that they do not know how to go about it. Because we are convinced about our own framework which is totally aligned with the SDGs. It is not contradictory; it gives more meat to go about achieving the goals.

**Do you think it is possible to establish a roadmap that could lead to implementation possibilities for all companies of the chemical sector?**

There is a challenge of using many frameworks because you add confusion to the system. You can claim that you are compliant with the SDGs, but it is too broad. And if you have a lot of frameworks, the question is: which one do you trust and follow? There is a big piece of work by the United Nations to look at all frameworks and see which are the ones that could be potentially recommended. That could be the best approach. Too many frameworks are a nightmare.

**Yes, having common references would allow enhancing the comparability between companies and therefore reassure investors. But at the same time, it may be hard to fit the internal strategies of everyone to these frameworks.**

It is going to be very hard because some strategies are already well embedded. The key is to make consumers, investors understand that if a company follows a framework X, they will be on the right direction, reach the SDGs and know if they can be confident that they can buy or invest in the products from this company.

**To summarize what you said, the applicability of the roadmap would have been increased if implementation guidelines were included.**

Yes.

**What do you think about collaborations between competitors towards achieving the SDGs? Do you believe this type of initiative is an efficient way to achieve SDGs by 2030?**

Absolutely. The big companies have already embraced this idea. It is more difficult at a small company level because we don't know how to do it, open innovation is not embedded in

people's minds; it is a question of experience. There are some problems that are too big to be solved by only one company. Either you have a particular problem that you address as an industry, such as the PVC industry which held together and found solutions regarding refrigeration with ozone issues. The other way is across the value chain, which is less with competitors compared to the industry approach.

**Has your company already participated in this kind of knowledge collaboration with competitors?**

Not yet, we are just starting. This is not the heritage of the company to be in that mindset. Also, it is not very common when you have this company size.

**Would you have liked to participate to the tool?**

Yes absolutely.

**What would you have added to the tool if you had contributed to it?**

I think the way it is is pretty good. I am not sure if we would have added more. That is why I think there is so much recognition. The vocabulary that was used makes it simple.

**Would you like to take part to such initiatives in the future?**

Yes. If I believe I can contribute to the matter, absolutely.

**So, you do not see any competitive threats by doing this kind of thing?**

There are some fundamental issues that are more urgent than beating competitors. At the end of the day, we all want to do the same thing, we all look towards the same direction. So, sharing that is not an issue. Why and how we do it can be different and can influence what we develop. But the big picture remains the same; everybody in the industry wants to have more bio-derived products to be less dependent on oil and protect the food chain. Then, everybody has its own way of doing it and thinking.

**In this way, would you like to be a member of the WBCSD?**

Certainly, I am passionate about this and I think we are not moving fast enough. I would like to further embed this systems-thinking approach and re-define the notion of success. For me, the key for people to embrace sustainability at the right level is to change the world view. But how do you do this? I want to use my example, when I was a "mainstream" corporate guy in another big chemical company. Here we are trying to be as transparent as we can and to change our world view. One of the elements that worked from my experience is to have this systems-thinking.

**Yes, this systems-thinking is very much applicable to the chemical industry as all value chain players are intensely interlinked. Do you think that collaboration between**

**competitors is also possible in other industries? Do you think roadmaps can be made for the other industries?**

Not always, sometimes products are not so differentiated which leads to cost-competition, making it harder. In the electronics market, when you are in a very fast-moving environment, which can also make it complex. In the chemical industry, we talk about products for 20 years. **As you said, the competition is more on the product level in the chemical sector, making the competition more indirect than for other industries.**

Yes, absolutely. Our products typically go in the manufacturing of other products. We create a different value added by understanding how our products fit into the processes of our customers. This know-how is not disclosed in the products but is key to be successful. And that, you can protect because it is not part of the conversation. When you only have the product, it is harder. **You were talking about the SDGs that you are trying to link with your activities. Did the materiality matrix from the roadmap help?**

The consultants we work with were using that as a reference point.

**So, in your opinion, companies can use the roadmap as a reference to see if it makes sense with their own strategies.**

Yes, it is also how we use it.

**Yes, it also makes more sense because companies often already have a sustainability strategy.**

Yes.

*d) Interview transcript 4: Anonymized interviewee*

|                           |                        |
|---------------------------|------------------------|
| Date of the interview     | 18 April 2019          |
| Duration of the interview | 69 minutes             |
| Role in the Roadmap       | External               |
| Name                      | Anonymized interviewee |
| Company                   | Anonymized             |
| Function                  | President              |

**Could you please introduce yourself?**

I am a Chemical specialist. I am general manager of [chemical company where the interviewee works] in [country where the interviewee works].

At some point, Cefic came to [country where the interviewee works] and saw there was no local association and suggested to organize it with local offices of big chemical companies. We were reluctant because in [country where the interviewee works], the mentality is more ego-centered; we usually do not get along together with competitors. We did not see what the value was. Eventually, few corporations and local companies decided to do it. But the association is not comparable by far with other European associations. It is a long way to develop certain solid structures.

Our issues regarding chemical industry are not that major than in Europe. For example, the SDGs are not the main issues; we have other issues such as survival.

On the other side, I have worked in the chemical sector for more than 20 years. I had to deal with many big players from the industry... so I understand how it works and I have seen all kinds of initiatives.

From my point of view, the chemical sector is the big bone of the civilization. If you take any field of activity, you cannot achieve anything without the chemical sector. The more developed the chemical industry, the more developed the other industries. Of course, every good comes with bad.

My first feeling when I saw your topic is that whatever corporations are putting on paper is doable. My major concern is about the behavior of the human kind, the people.

In the chemical industry, I think that the form of ownership is extremely important. Most companies are privately-owned. Family companies are different in how they make decisions regarding the ethics of the company. Sustainability is about moral principles, ethics. If guys like Pinault and Arnault would switch their businesses and their mentality to social business,

then you have chances to implement sustainability. If you have companies listed on stock exchanges and companies that belong to investment funds, you may not be so easily on track with moral and ethical principles because the main value for stock exchange listed companies and investment funds is profit. Whenever there would be a choice between profit and sustainability, what would be the choice of the Board?

In my opinion, sustainability will be solved when we will have a critical mass of owners that understand that what is at stake is much bigger than this year's profit, bonuses and their image.

**At the same time, investors are starting to understand the value behind sustainability, although it takes time.**

For me, at the moment, it is a strange association to try to quantify value. But it is the way people think. If they have to convince their board about such initiatives, they have to come with all kinds of value propositions. I am not sure that the way they calculate it is the right one, because the benefits are not direct; they are much greater, global and they are coming back indirectly.

#### **What is the approach of your company towards sustainability?**

The approach is first set by the corporation, the Board. On one side, we have the possibility to finance certain initiatives, from the sponsorship budget. Then, [chemical company where the interviewee works] is trying to list some products that are green to monitor the development. In my opinion, considering the size of our company, we can do by far more. For the moment, sustainability concept is still in the awareness phase.

Basically, there are local initiatives that are for the moment related to good practices of good citizens, such as education of our own employees to actually sponsor this. There are basic things; for example, we try to collect, recycle, management waste, fix our wooden pallets and put them back in circulation, prolong the life of our packages as long as they are still safe... For that, we have our own tool shop. Fight against waste is our first step.

#### **Do you have partnerships with your competitors?**

There is no partnership with competitors, there is only the association. We signed that we respect anti-trust legislation and we only discuss matters coming from Cefic or related to local legislations, product stewardship, Responsible Care, REACH<sup>5</sup>.

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<sup>5</sup> "REACH ([EC 1907/2006](http://ec.europa.eu/environment/chemicals/reach/reach_en.htm)) aims to improve the protection of human health and the environment through the better and earlier identification of the intrinsic properties of chemical substances. This is done by the four processes of REACH, namely the registration, evaluation, authorization and restriction of chemicals. REACH also aims to enhance innovation and competitiveness of the EU chemicals industry" (European Commission, 2016; [http://ec.europa.eu/environment/chemicals/reach/reach\\_en.htm](http://ec.europa.eu/environment/chemicals/reach/reach_en.htm))

**Do you have a materiality matrix?**

Maybe we have something. I am not familiar with all the terms.

**The principle of a materiality matrix is to assess the most relevant and important matters for the company in terms of sustainability for example, as well as from stakeholders' perspective and to decide to have an impact on these areas or not.**

I don't think we have it.

**If you look at the roadmap, there is a materiality matrix in the beginning. It is a graph where you can see all SDGs, their importance. In the end, they chose 10 because they are seen as the most relevant for the chemical industry in general. Do you think that you would like to do this kind of approach by yourself?**

We now have a much stronger quality department. There was a discussion to implement some kind of system for sustainability. In order to tackle issues like sustainability, you need to afford it, to have resources. I will write to you in a mail what is this sustainability system. It could be possible that when you do these assessments, you would come to use graphs and methods.

But in the end, you come back to the issue that, if the approach is individual, you do it on your own purpose, or the approach is global and then you have to consider also the bigger view. For example, every year, Cefic is asking national organizations about their top 3 or 5 priorities. Even if you have issues such as climate change etc., when you go down at local chemistry associations and even further down to members, then the focus moves more to private issues. It would be interesting to see how this is shifting every year. Five or ten years ago, nobody was mentioning microplastics or climate change but then it started to be on the agenda of the bigger organizations. Year after year, more of these developed organizations are starting to put these things on their yearly top priorities. However, at [chemical company where the interviewee works] in my country, I do not see climate change as a top 3 issue.

**What do you think you would need in order to start implementing sustainability? Would you need tools from Cefic?**

No, as I said, the change can come from down to top by educating the individuals and change the behaviors. Then, from top to down, not from Cefic but from the owners.

**The roadmap was created by big players of the industry. But would you have liked to contribute to something like this?**

Yes, probably I would have, but I am not a specialist in the matter. I would think further to understand the motivations of each company, the founders first: who joined, why they joined, what are their intentions in the future. I would ask the big question: What is your budget/ yearly budget? What do you want to pledge for the next years until 2030 on these issues? I see that

big companies are signing some engagements in front of investors, press etc. But I am curious whether these companies are taking this as serious investments and if there is a position in their budget on the amounts they would spend for sustainability. For me, this is the guarantee, because this is how companies and big corporations are thinking. It would be interesting to ask to the companies who signed the document if they have that in their budget.

**Yes, if you look at annual reports, you can see that some of them have these investments disclosed. They are already quite far in terms of sustainability. That is also why they wanted to disseminate their knowledge and actions about it.**

There are 2 philosophies in general. You can choose to invest in procedures and in systems, define and allocate tasks to people, or you can choose to invest in the education of people and people understand what they have to do so you don't have to tell them. The central thing is the grid of human kind, that is what has to be solved. We are consuming too much, and we don't change our behavior, that is the problem of the society. That is my thesis on this subject. We can make procedures, roadmaps etc. but it is also about the culture and the education of people. In the past days, there was the case of Notre-Dame: a big drama for the heritage of human kind, for patrimony, very emotional, a symbol... Within 6 hours, they raised a lot of money for that. There are much bigger issues for which we cannot raise that amount of money even if we had the biggest campaign. I think the biggest change with sustainability and climate change will come when the big corporations and their owners will stop entertaining this financial model that exists today. You can give tools to people, but tools should be what you do last. First, you need to explain, educate, raise awareness and make people understand we don't have a future if we go on like this.

**And do you think that such tools can raise awareness?**

I think some tools are too technical. The languages are sometimes very difficult. I'm not sure who is the target.

**Do you think that the target of the roadmap is more oriented to companies at large rather than employees?**

I think it is done by people who think in the same way, in the same pattern, which is a bit corporate. But you have to ask the help of others. The chemical industry is not well communicating at all with the normal people on the street. We don't hire creative agencies to explain what is good in what chemistry is doing. Chemistry used to be very effective in the 1970's because it was bringing lot of innovation. Now chemistry is the black sheep.

**Do you think the roadmap is not translated for small businesses such as yours?**

Yes. If you want to do some revolution, you have to change things. You have to find a way to emotionally touch people to make them change their behaviors. Either you go to top with the guys that give orders to the huge corporations and from tomorrow on you change your business model, or you go to the normal people and start to communicate with them. Otherwise, these documents will stay in the same limited world.

Maybe, at the end of the day, they will create some kind of awards, similarly to the Responsible care initiative. It might be that if you respect the roadmap, you can get diploma, reward to use a logo that would recognize your efforts and in the end of the day translate into a marketing tool. Maybe, some of the clients would recognize this value and buy from you because you do this. It would translate in some kind of tangible value for the business.

**Do you think it would be interesting to have these logos?**

Not necessarily, but I think this is where it may go. The risk is that it might become bureaucratic. It is nice to have, you give it to some people that have to monitor it, produce figures etc. but it does not touch the people.

If the corporation would tell us to comply to some things, people would respect it but would not really buy it. But if you come and ask: “How do you think we should solve this, how can we contribute to this issue”, they would participate and even volunteer to do things towards the cause. Again, in my opinion, corporations have to do what they know and put it in their budget.

**Will you consider using the tool?**

We were not part of the process, so I don't know in detail what the tool is all about. I will ask my colleagues where we are about the sustainability system and then I will give them the information so they can evaluate the 17 SDGs. Of course, we should be open to check any kind of system that is given.

**When reading the roadmap, did you consider the language complex?**

Yes, the language is the typical quite heavy language of corporations.

**So, is it hard to understand for small companies?**

It is not attractive. People are under huge attacks of information. You need to give them very simple messages, less words, less introductions, less pages. I have seen so many reports from all kinds of consultants, with extensive introductions, whereas the contents that you need are only 10%. If you want to win hearts and people, you have to stop using this kind of language, otherwise it will stay among the same circle.

**Do you believe that partnerships between competitors can be useful to achieve SDGs by 2030?**

Yes, but the common ground should be moral values and principles.

**But in your case, you would have difficulties to collaborate with your competitors.**

This is specific to my country. We don't aggregate.

**Do you think this type of partnership between competitors can be applied to other sectors?**

It is valid to other sectors.

**But the chemical sector is very special; competitors are sometimes suppliers and customers of each other.**

The final purpose of the roadmap is to partner and save the world, right? If we want to do this and have a moral common ground, then it is not a matter from which industry we come, and it is not necessary to have an industrial approach. We have an industrial approach because we are already organized under this form. But nobody said that Sumitomo, Mitsubishi, DOW etc. cannot have partnerships with Mercedes, IBM, Coca-Cola or whoever for certain matters. Generally, if you enter in issues such as creating high performance teams to achieve important goals, such teams require heterogeneity in terms of gender, age, skills... That's why for this kind of purpose, you can expand not by industry but inter-industries. In my country, we have a platform and for bigger issues, the chemical industry is on the same table with pharma industry, construction and material industry, lubricants, cement producers...

**Yes, it is very important to partner with other industries because you are also providing them products. It is very interesting to say that usually teams should be heterogeneous because you also need diversity to achieve sustainability.**

Exactly.

**That may then potentially be an issue with the roadmap because they are all big players.**

**Do you think they should have involved other people?**

Yes. At least, inviting guests and asking for their contribution, smaller companies and even companies outside of your area. For example, an IT guy would think in a different way. But it comes back to "what is your target": is it other companies, is it people, their behavior, is it financial...

You can take the example of football and financial fair-play. It could be a standard of the industry, saying "according to the turnover, 1% or 2% need to be put in sustainability projects". It does not matter if you are big or small; if you want to be taken seriously about sustainability, if you want to stay on the table with us, we need to see your efforts". This is the commitment, the entry ticket. That is the language that financial people understand.

**Cefic took part to the roadmap. However, the opinion of Cefic differs from yours and therefore cannot fully represent yours.**

Cefic comes from a special culture and history; they represent very big companies that are their members. Cefic is very used to deal with global, European projects. Cefic is all the time with the European Union, Commission, Parliament, so very much involved with legislations. Cefic has to be very careful with the wordings they use. Cefic is representing the sum of all the ideas of the members they have. As I said, their members are huge European and worldwide companies, while I am just one company, I don't have Cefic experience and history and I come from a bit different reality.

The structure of Cefic is member-based, with companies and on the other side national associations. The meetings of national associations are always separate from the big meetings of Cefic real members. When I go to Cefic, I never meet the individual companies, I meet the other national associations. And these are also aggregate.

**It is quite complex because everyone is representing others so at the end of the day, it may be difficult to have everyone's voice.**

**How did you learn about the Roadmap?**

My job of managing [chemical company where the interviewee works] in my country is consuming most of my time. I was elected as a President of my country's association for chemical sector, which is not my full-time job. Cefic is sending me mails everyday about a lot of things and I don't have the physical time to read and understand them. In all this amount of information, I take the things that are of a certain priority and try to understand what it is about. The moment when I understood about the roadmap, it was with your mail, which I had to read twice because for me it was never a subject or a topic. I googled on the internet what it was all about and found the document. I took a look at some pages.

Maybe, Cefic informed me about the roadmap. I am on their direct mailing list and I get continuous information about all kinds of stuff. If the issue is not a hot topic for my country, then I put it in a file. That is why I told you that you know more than me on the topic, because until 3 hours ago, I did not know there was an initiative from companies on this issue.

There was also the Alliance to end plastic waste, in which there are partners, few big companies. There are many initiatives like that.

**It is a common thing with sustainability to have so many information that sometimes it is hard to focus on some of them or to know about all of them. But this roadmap is also trying to combine as much information as possible to help companies to have one focus and one reference to start from.**

It becomes successful if it is a world phenomenon. Otherwise, it is one initiative among others. WBCSD is another forum among other forums and seminars.

**The roadmap was launched in July 2018. They also plan to do some monitoring to see if there is progress with the roadmap.**

This is pretty big, that's why it should go out of the chemical industry. If you only take the Food [read target 2.1 on the roadmap], you don't need all the 17 SDGs, only if you focus on this one, you have enough to focus for the next 15 years. That is why I am saying that telling me this is enough to me. I don't need to read other pages about others. [Read impact opportunity 1]

You grew up with mobile applications, YouTube etc. Today, it is common sense that a video clip can steer much more emotions than whatever. We see fantastic commercials, advertisings etc. If you want to reach your audience, think like your audience and advertisers. If I want to target corporations and companies, I make such documents. If I want to go to people, then I launch campaigns, I engage advertising companies, I buy Facebook campaigns, I go on Instagram... That is how to engage with people today.

The document is okay if you go to corporations to ask for money, saying "let's do this, you need to join us, this is our project, this is what we want to do, we need to educate people...".

**It is very interesting to have your opinion and know that you are interested in educating people, on top of the high-level and financial perspective.**

I think both are important. The high-end and financial thing ends up as it is. Let's take this money and invest in people and education.

*e) Interview transcript 5: Ann Dierckx*

|                           |                                  |
|---------------------------|----------------------------------|
| Date of the interview     | 18 April 2019                    |
| Duration of the interview | 31 minutes                       |
| Role in the Roadmap       | Project member                   |
| Name                      | Ann Dierckx                      |
| Company                   | Cefic                            |
| Function                  | Sustainable Development Director |

**Could you please introduce yourself?**

I am the sustainability director of Cefic, meaning that I am responsible for the development and the implementation of the strategy. I participated to the roadmap exercise.

**What is the approach of Cefic towards the SDGs?**

For our sustainability program, we were already working ahead with the SDGs. We developed a mission and a program implemented through different activities and initiatives. We established a charter where we included our strategy and we finalized it before the SDGs were there.

The SDGs were not a big surprise because they are following the current societal challenges. For example, we are focusing on low-carbon economy, resource efficiency circular economy, biodiversity, chemical safety. This is the DNA of our sustainability program. What we then did is Chemistry CAN, allowing to connect the priorities we had defined with the SDGs, which are mainly 12 and 13. That is also what we tried to do with the roadmap to identify priorities. At the time, we run questionnaires and followed the classical sustainability approach at Cefic to identify what we have, the vision that we have, how we are contributing, what are our current actions.

**I also noticed that on your website you were emphasizing your contribution to the SDG 17.**

Yes, some do. But in my opinion, SDG 17 is sometimes misinterpreted. This may need to be revisited. As an association, we are also part of a bigger international association, ICCA, which of course has a lot of capacity-building and we have organized workshops with UN Environment.

**How and why did Cefic get involved in the creation of the roadmap?**

We had the experience of our own charter. There was a need to have a roadmap within WBCSD. Because of our experience and what we already had done, we got involved. This is very much

aligned to what we have been doing. It is about guiding companies where we can have the highest impact, where we can make a difference. Some companies say they can show contribution in all the areas through their mapping exercise. It happens because there are challenges that can be solved very consciously or not. But there needs to be a conscious exercise to see where the gaps are and where we need to direct action; that is the big difference. That is why we did the exercise: to see where we can contribute and where we will have a big impact if we take that action. It is really to guide companies and make them move beyond the mapping exercise.

**Could you summarize Cefic's contribution to this tool? How did you come with an aggregate of the opinions of your members? Did you consult them with particular regard to the roadmap?**

We did not consult our members because we had our own program done before, a very internal exercise with our own questionnaires. Since the approach was very similar, we used the answers from this internal process.

**How did you interact with the other contributors?**

It went very well. We had several face-to-face meetings in Geneva, and extensive calls where we discussed every target one by one. The conversations were open and honest because the people present had this mindset of sustainability. What brought us together was this wish to have impact. The call to make action was very strong for the companies that were there. We had lots of brainstorming and in the end, a lot of actions were suggested.

**In your opinion, to what extent is this roadmap applicable to the members of Cefic?**

We distributed the roadmap to our members. For those that really are already engaged, it is more like a confirmation between peers. I cannot tell you if it is used among smaller companies. Some of our national federations looked at it and were certainly inspired by it but it is difficult to know if they use it as such. The idea of identifying gaps finds acceptance. We have few actions coming in that direction on which we report back on the website.

In this business, every idea has not one single mother. We are doing some actions automatically, such as technology because it is so key. The true value of the report is that it brings it nicely together, demonstrates it and may give direction to and inspire other sectors.

**How did you communicate the roadmap to your members?**

We have communicated it by mail, we listed it on our website, in sustainability forums and possibly on some social media.

**Do you encourage your members to use it?**

Our focus is of course on implementing our charter. We also aim at bringing the roadmap into action, but we use it more implicitly than explicitly. We do realize that we need to refresh our goals set 3 years ago and to do that, we refer to the roadmap. We use the roadmap more as an example, as a tool, as a best practice.

**So, would it be hard to use as a starting point? Should it be used as a comparison?**

Yes, because we have our own strategy. If we didn't have one, probably we would use the roadmap.

**What are the next steps regarding this tool? Do you have monitoring plans?**

WBCSD had a meeting a week ago. But there was a desire to keep monitoring the activities, in particular the ones related to sustainable portfolio management. At the time, it was planned to create a website where there would be actions reported but lately there is not much there. I am not aware about the decisions made during the last meeting.

**Does Cefic plan to monitor if the members are using the roadmap?**

We had a monitoring system for Responsible Care. We intend to do a monitoring system for sustainability also. Our intention is to ask individual members if they are using it, but it is not operational yet.

**What are rooms for improvement for the roadmap?**

Some critics we had is that we do not talk about the downsides of the chemical industry. If I would have to redo it, my recommendation would be to include much more upfront the broader society. This is a very much inward-looking document.

**In that sense, do you think this document should be dynamic? Should there be updates?**

In principle, yes. The methodology is good so maybe just redo the methodology.

**In that sense, do you think other companies, maybe more diverse, should be included in the process?**

I think it is very hard. It is more the role of sector associations to spread that knowledge. We do it, but we can always use it more. In Cefic, you also have the big companies, the smaller ones are in more specific products, and you can contact them via the national federations.

**In your opinion, to what extent is this tool applicable to small and big companies?**

The audience is our typical memberships, the big ones. But I do think that it can also inspire the small ones. What small companies can benefit from is the mapping that we have done.

**In general, do you believe this type of partnership between competitors is an efficient way to achieve SDGs by 2030?**

I think so. It is true that there is a ranking among chemical companies according to how sustainable they are. But there is a strong belief that the challenge is so big that it requires

collaboration; to my surprise I must admit, because I would think they would compete more. But not at the level of setting priorities, rather on the product or solution level.

**For example, was it an issue to share your knowledge with others?**

Not at all. I think everybody realizes that we need to collaborate. Also, the sector has a whole reputation of solution provider.

**Do you think the roadmap is also targeting other stakeholders such as investors and other sectors?**

It is open to dialogue. Investors would still talk individually to companies and do a risk assessment. I am not sure if they would be particularly influenced by the priorities from the roadmap. But it is true that the idea is also to show that the sector is moving. It might help shaping an overall image of the sector, and potentially change mindsets.

**Do you think that knowledge collaborations are easier in the chemical sector than for other sectors?**

I don't think so. The matters that are being discussed are no company secrets.

**Would you like to take part to such initiatives in the future?**

One of the particularly interesting things was to have American and Japanese colleagues there. Having this international level was definitely interesting as it also opens more doors to conversation and allows comparing concepts. Comparing with other sectors would also be very interesting and seeing the issues over the sectors we are serving.

**Do you think other stakeholders should have been involved?**

Not at this point. For the future, it should be. The next step would be to take the full value chain and the sectors you serve. There would be value in creating such a platform. What we did now is to identify in a theoretical way that you need value chain partners. At some point in time, it may be interesting to sit together around these things. But it was not the goal of this roadmap.

*f) Interview transcript 6: James Gomme*

|                           |               |
|---------------------------|---------------|
| Date of the interview     | 30 April 2019 |
| Duration of the interview | 33 minutes    |
| Role in the Roadmap       | Coordination  |
| Name                      | James Gomme   |
| Company                   | WBCSD         |
| Function                  | SDG Director  |

**How and why was this roadmap initiative launched?**

The idea or the concept of the roadmap comes from a piece of work that started in 2016 by the Business & Sustainable Development Commission under the leadership of Paul Polman (Unilever) and Mark Malloch-Brown (UN Deputy Secretary General). It is really to make a compelling business case, a strong view of the role and benefits to business of realizing the SDGs. There were subsidiary reports coming out of it as well. One of the headlines was the 12 trillion-dollar figure of economic value that could be realized per year if the SDGs were realized, so it is an incentive for business to engage and be part of these value creation possibilities with developing sustainable and inclusive products and services aligned with the SDGs.

There were also recommendations coming out of it. One was the idea of developing SDG benchmark to rank companies on their SDG performance: this has been taken out by the World Benchmarking Alliance. Other recommendations were related to the finance sector for example. One of the key recommendations where we saw a gap was around this idea of SDG Roadmaps, the fact that sectors need to come together to basically think about how they interact with the SDGs and how they can continue developing their industry in line with the recommendations of the SDGs. The next step from there is systemic transformation, when sectors come together to discuss how they can transform this economic system.

From that recommendation, WBCSD came up with that framework on how sector roadmaps could be conducted, with a 3-step process and all of the various discussions. We had the help of the chemical sector to pilot that. At WBCSD, we have a large number of chemical companies; they are used to work together in this way, and they were looking for a new project.

**Indeed, I saw that the participants of the SDG Sector Roadmaps framework and of the Chemical Sector SDG Roadmap were the same. That means that this was part of one big initiative.**

The idea with that framework was to avoid keeping anything static. We developed the framework prior to the chemical sector roadmap. Once the chemical sector work started, it was a good opportunity to pilot that framework and make changes to it, in line with the experience we got through that process. The companies who contributed to the framework were from the chemical sector because they were the first sector to do it. We therefore tweaked and refined the general guidance based on that experience.

**What is the main goal of the roadmap? Is it more about bringing awareness, guiding companies, having a tone from the top?**

For the companies involved in it, it was the value of having these conversations around fundamentally what the SDGs are, what the role of the industry is, how they can work more closely together on realizing the SDGs. All the companies involved are now continuing defining the actions they can take and continuing the discussion on how they take these actions, how they work together to move towards these ambitions they are taking from the roadmap. It is also targeting other companies that are not members of WBCSD or that are not in that leading phase and understand how to take action themselves towards the SDGs.

**At this moment, what is the main audience of the roadmap?**

I was in the US last week for the largest industry association chemicals' meeting. There were companies saying they use it as a reference point, including smaller companies. It also serves as a good engagement tool for other stakeholders too, to present the roadmap and the key elements during UN chemical-focused debates. Also, Cefic is able to share it with its members. There are opportunities to spread the roadmap among other stakeholders as well.

**When you decided to launch this initiative, what companies did you contact?**

Basically, we reached out all our members that were part of the chemical sector and we also could involve the American Chemistry Council and Cefic. All the companies came willingly, proactively and were pleased to take part.

**The process was inside the scope of WBCSD, of course.**

That is very linked to what we do at WBCSD: we bring companies together to tackle sustainability challenges, which are maybe too big for one company that is isolated. We collaborate and innovate together to scale up impact on sustainability challenges. We did a lot of work previously on things like life cycle analysis, portfolio sustainability assessment... Many projects are undertaken by companies. They have a history of strong sector collaboration.

**Do you think that the collaborators of the roadmap fairly represent the industry?**

These are leading companies. In terms of market share, they are significant. Of course, they do not represent the entire industry, but in terms of practicalities, bringing the entirety of an

industry together to discuss this thing is never going to work. It is important to have that leadership. It is not a definitive end to the conversation; it is a start to the conversation. These companies defined ways in which the industry can contribute to the SDGs.

**In this sense, do you think that the document is meant to be dynamic? Do you expect updates of this document?**

We have a microsite, where we are updating on a regular basis new initiatives that companies are taking to implement some of their actions. People are monitoring if progress is being made, if it is clear enough... It is a dynamic exercise. The microsite is public.

**How did you deal with the complexity vs. simplification dilemma during the elaboration of the roadmap?**

This is why the roadmap guidelines need to be a little bit flexible, depending on the sector. We are now doing another roadmap with the forest sector, which is a quite different exercise because the forest sector has a much narrower scope of activity, therefore it is much easier to set more details, define specific criteria with KPIs because the value chain is much shorter and the range of products' impacts is different from the chemical industry's. In the chemical sector, products are involved in different value chains and have different applications. For the chemical sector, we had clear actions coming out of it and that was what the discussions were about: what actions are we actually going to take as a group? But it was hard to have actions specifically saying: "we will increase this by this and reduce this by this". It was more about coming together to do things together and advance this. There was a set of actions, but it was not at the level of specific KPIs. This is the next level that is going to come out of it.

**Also, the chemical sector is very diversified, which can make it hard to produce a document that is applicable to every member of the sector, so it makes sense to make it broad.**

Exactly. Otherwise it would last until 2030...

**How do you see companies and stakeholders using it? You were talking about using it as a reference. But of course, each company has to apply the materiality matrix to their own strategy.**

Yes, this is an issue I heard some companies talking about. They said: "why do we need a roadmap? We already have our SDG strategy." It is not really the case. It is fine to have your own SDG strategy; it is important for you to understand what you are doing as a company. But there are some things you would only be able to do with a critical mass. Some conversations are much more powerful to have on the sector level, rather than on the company level. Because

it is a new, or maturing field, there are diverse opinions around what constitutes good or best practices when it comes to identifying priority SDGs or identifying opportunities and actions.

**How did you communicate about the roadmap? Do you encourage your members to use it?**

We did the usual sharing through our channels, referees etc. We also launched it at the high Level Political Forum for Sustainable Development at the UN in July. There is a business-focused event every year called the SDG Business Forum and the CEO of Solvay, Mr. Clamadieu, was part of the panel and spoke about the process, benefits and highlights of the roadmap. We also had several other events and we continued a roll-up process since then; sometimes us, sometimes the companies involved were speaking of the roadmap.

**What is the position of WBCSD towards the roadmap? Do you encourage your members using it? Would you think about rewarding them if they do?**

For any company who would join WBCSD subsequently, we would flag it as a tool they can use and that is available to them and show they can work on various projects emerging from that roadmap. In terms of reward, companies pay to become WBCSD members to have these conversations and have access to the network so once they are in, it is up to them to decide to use this tool or not.

**Ok, so it is not mandatory to use it.**

No.

**You were talking about the existence of diverse opinions. How did you react to criticism to the roadmap regarding the interlinkages between the SDGs for example?**

There will always be different opinions. The approach that we used represent what is emerging as a best practice. GRI and UN Global Compact have been looking at the positive and the negative impacts of the sector and are looking at where those impacts could be addressed. The roadmap was also about “the chemical sector can manage its negative impacts”.

If you look at the materiality matrix and SDG 14 for example, which is linked to the plastic in the water issue, the sector recognized that it is not the only actor who can address that so it requires collaboration of others, such as recycling companies, consumer goods companies. It also recognized that it still has a key role to play. Even if in the roadmap this SDG is ranked as having a low potential of contribution from the sector, we still highlighted it as a key goal.

The other SDGs are not forgotten. The chemical sector just chose the ones where they think they can drive the most impact.

**The chemical sector impacts so many industries that it is in a way connected to all SDGs. Do you think that it is possible to rank SDGs such as 15 or 16 as having a low impact or a low potential?**

It is not necessarily low. It is lower than the impact on oceans or on human rights for example. Everybody can be connected to everything. But if you do not make prioritization, no one is making any action because they are just overwhelmed by 169 targets that are all interconnected, and they cannot do anything without having a negative impact on another one. “How am I going to value that? How am I going to value my negative impact?” Then you are stuck in this issue circle of complexity and nothing is going to happen. If people disagree with the analysis, it is absolutely fine because it is a conversation starter. Otherwise, we are just stuck with 17 SDGs which are clustered with everything and we do not get into any actual detail about how we can move that conversation forward.

**I see. Also, on top of the contents, there is a methodology that companies can apply, and they can come with different materiality analyses.**

Yes, there is a methodology there, we had to produce it before this new report came out from the UN Global Compact and GRI last year called “Integrating the SDGs into reporting” and that talks about this idea of supporting prioritization, which is probably the closest we have come so far to set standards around SDG disclosure. That talks about this need of looking at negative impacts and positive impacts. It is pretty much aligned with what we did. I think the methodology is there and can be used by anybody: a sector or individual company.

**Do you see any rooms for improvement that you have acknowledged yourself after publishing the roadmap?**

Of course, in the process, things could have been done smoother or better if you had more time to do things. The feedback has been very positive in general and it has been a useful tool to start conversations around what the sector can now do and how the sector engages with other sectors. One thing we are trying to do is to create more roadmaps and then bring the sectors together to explore opportunities for collaboration cross-sector as well.

**Do you think the roadmap also targets other stakeholders such as investors and customers?**

There are elements in there that can be useful. There are more detailed pieces of work out there on how the chemical sector could potentially contribute to the SDGs. The roadmap is more looking at the journey to get there. The fact that the roadmap exists is a good indicator for investors, but there are other initiatives also coming out. For example, this SDG benchmark

that the World Benchmarking Alliance is producing is actually looking at performance, which might be more relevant to investors. All these results together can build a good picture.

**Do you think this roadmap is also targeting companies that are not aware of the SDGs? Is it possible for them to understand and start implementing SDG strategies with the roadmap?**

There are four chapters. We describe what SDGs are, the relevance they have to business, how the chemical sector interacts with the SDGs, and then the more detailed latter sections about what the key impacts of changes are and what are the actions that the sector could take, or the actions that the companies involved in this roadmap are taking. I think it is good inspiration even if there is no SDG awareness there.

**On the company level, do you think this is targeting sustainability directors or also employees themselves?**

If employees want to read it, it's fantastic. Typically, this tends to be on the level of CEO. If the company questions and requests employees to read it, I guess it would be accessible to them.

**What are the next steps of the roadmap? How do you plan to make this evolve from ambition to implementation?**

Companies continue working towards the steps. We are looking for new partners to join and develop the actions that have been identified. We are also working with the sector associations.

**What are the next steps for the other industries? What have you learned from this roadmap that you could apply to the next ones?**

We are doing the forest sector roadmap which will be launched in July. We have done some work at a more granular level with the Indian cement sector. We have just announced we launched a project with IPIECA (Oil & gas sector) and we are continuing to explore other opportunities too. Obviously, the more we do, the more we refine the process, but I am confident that now it is a robust process and we will apply it to other sectors as well.

**Do you believe that this type of methodology can be applied to any sector?**

I think it can be applied anywhere. The roadmaps all look different depending on the sector, on the companies involved in it (ultimately it is a business-driven initiative), on the level of ambition, the nature of the sector, how advanced a sector is in terms of sustainability considerations... There are certain decisions the project team will have to make as well: To what degree are the stakeholders driven? Who are the stakeholders involved? Is the UN involved in the process? WWF, Oxfam or another kind of NGO? How have they been brought into the process? There are different decisions to make, you have to decide on which voices

you want in it, what level of details you will put into it. You can decide that project per project. The basic framework stands for everything and then can still serve as a guide to take.

**You were talking about having cross-sector collaboration in the future. Does it mean that it was not considered for this roadmap yet?**

The aim was to identify the areas where the sector wanted to look at. For example, an action point was about contributing more to urbanization, urban planet. That now sparks a conversation within WBCSD about how we can bring together members from the chemical sector with members we have from the construction sector and have conversations there. Obviously, each company has a wide range of customers and knows where there are interactions with other sectors. It helps to have a starting point for discussion and then something to leverage.

**You were talking about the updates you are currently working on. Do you plan to release a second version of the roadmap or is it meant to be a single document?**

I think the microsite will evolve with updates on progress and then, in 5 years' time, we may have to revisit it, depending on what the companies will feel is useful. Or we can just make updates to that microsite and look at progress.

**Yes, challenges are moving fast which may require updates.**

Yes, absolutely. You can also say the same for the SDGs.

**All the companies involved were leading companies but there were also associations. Was this a way to involve SMEs?**

No, the associations are representing their own expertise, rather than going back constantly to their members. It was a project we wanted to roll out on a very short timeframe. Being held up because of the need to explain various things to a large number of companies would have been less enjoyable for them, I think. The idea was to get the expertise from the member associations involved and use that to leverage them as a key strategic partner and promote the roadmap to their communities.

**Even if they are not involved, do you believe that the roadmap is applicable to small companies?**

I think so.

**But this may not be true for other industries.**

It may not. It depends on the sector. The natural starting point is starting with companies that have the time and resources to start to think about this agenda and can actually move the biggest changes. If you change the 10 leading companies from any sector, then it is worth to have a report out of it.

g) *Interview transcript 7: Luís Araújo*

|                           |                  |
|---------------------------|------------------|
| Date of the interview     | 3 May 2019       |
| Duration of the interview | 27 minutes       |
| Role in the Roadmap       | External         |
| Name                      | Luís Araújo      |
| Company                   | APQuímica        |
| Function                  | General Director |

NB: Due to the limited amount of time available for the interviewee, some topics from the interview guide were not covered.

**Would you like to introduce yourself?**

My name is Luís Araújo, I am from Portugal. I am executive director at APQuímica, we are an association of the chemical industry in Portugal. We have connections with Cefic and also in Portugal with businesses and associations.

**Are you familiar with the Chemical Sector SDG Roadmap?**

We are familiar with the roadmap.

Some years ago, in 2015 and 2016, we have shared the question of SDGs with our associated members through our newsletter. We have published each month small papers on each of the SDGs and their connection with our industry. This was our way to bring more visibility to the goals, using of course the information and feedback of Cefic.

From the beginning, we started with the SDGs with a broad approach.

**What is the approach of your company towards sustainability/ SDGs?**

Since the beginning, sustainability is an important issue. It is one of the main goals in our organization. We fight to keep competitiveness but also sustainability for our member companies. Of course, the priority depends on the situation. At the moment, in Portugal, the important issues are related with circular economy. This is one of the general issues that you can find in the roadmap. It is also a priority for Cefic at the moment, so I think there are incentives to launch projects. We already do some projects with our members regarding sustainability to explore possibilities with circular economy. Another important issue is the low-carbon economy (decarbonization), which is of course a priority at the European level. At the moment, a roadmap is developed to achieve carbon neutrality by 2030.

It is a very ambitious program, there are a lot of connections with our daily activities in terms of use of energy, efficiency etc.

Within the WBCSD roadmap, the most important issues in which we are involved are connected with the circular economy, the use of resources, decarbonization and the low use of energy.

**What did you learn from the roadmap regarding these topics? How did you use it?**

In the beginning, the roadmap gives us some lines to go through. Of course, you cannot find details in the roadmap for implementation. It was quite important for generalization.

The targets are very general, it is hard to use them. But, in general, we followed the targets of course.

**Do you think the roadmap is useful and applicable to your association?**

Yes. Of course, it must be a general approach. It was important for us to remember the most relevant things. We had to select some targets.

**Do you use it to communicate with other companies? Is it a useful tool to explain the SDGs and the role of the chemical sector?**

I cannot tell you that we use the roadmap when we talk with other companies. It is not used in an explicit way; it is used implicitly.

**In your opinion, to what extent is this tool applicable to companies in your country? Is it representative of their issues?**

It represents well the problems of the companies in the chemical sector. If you look at the country issues, of course there are other problems that are linked to the SDGs such as poverty. But in the abstract that was done by Cefic, it applies to us.

**In the roadmap, there are 10 priority SDGs highlighted. Do you have similar priorities?**

There are more specific projects and problems. I can say that the roadmap covers the important issues for the chemical sector.

**If you had contributed to the creation of the roadmap, would you have changed anything?**

This is a difficult question. Of course, there are many issues in the world. But I do not identify any important thing missing.

**Is the language used in the document easy to understand?**

The document is in English, not in Portuguese, but it is sufficient for us.

**Do you see any limits or rooms for improvement?**

At the moment, no.

**The roadmap was created by leading companies in the sector. Do you think it would have been useful to include smaller companies and associations?**

This is a good point because small companies sometimes have particular issues. I would say that in general, it is easier for big companies to take actions than for small companies. It is difficult to be more specific. I think that in general terms, the principles apply to everyone. But the ways to achieve the goals are different. Also, small and big countries do not have the same issues. Small and large companies have different problems concerning sustainability.

**How did you learn about the roadmap?**

Cefic communicated it to us. We have meetings with Cefic and other national associations multiple times per year and these topics were discussed during meetings.

**Since Cefic is one of the roadmap's contributors, did they ask your opinion?**

Yes, of course. For example, they asked our opinion about the main issues we have.

**You were saying the roadmap is very general. Would you like it to be more specific?**

Yes, but tools like this are not done every year. It is difficult to go in details. It could be more specific for some items.

**Do you think there should be updates and modifications in the future?**

This is for sure.

**Do you think in the future smaller companies should be involved?**

Yes. This is one of the general problems of associations sometimes.

**Do you believe that collaborating with competitors is an efficient way to achieve SDGs by 2030?**

Yes, of course. As an association, one of our missions is to make companies talk to each other about these issues. We have regular meetings about the issue of sustainability, one over a year.

**Is there any competitive issue in this case?**

When we have meetings involving other sectors, sometimes there are contradictory issues and positions.

**Would you like to take part to initiatives such as the roadmap in the future?**

Myself, no. I have general responsibilities.

**In your opinion, what is the main audience of this tool?**

I would say that the roadmap is for everyone. Sometimes, for some aspects, big companies have more means, technical staff and so on to achieve the goals. Sometimes it is difficult to have people dedicated to this kind of issue.

**For example, for companies which are not aware about sustainability yet, can the roadmap be used?**

Sometimes, companies give less importance to some aspects or have less capabilities. Our role as an association is also to give them more means.

**Ok, so you are helping companies in your country to be more aware about sustainability, and this tool also helps you in doing so.**

Yes.

*h) Interview transcript 8: Linden Edgell*

|                           |                                |
|---------------------------|--------------------------------|
| Date of the interview     | 8 May 2019                     |
| Duration of the interview | 25 minutes                     |
| Role in the Roadmap       | Coordination                   |
| Name                      | Linden Edgell                  |
| Company                   | ERM                            |
| Function                  | Global Sustainability Director |

**Could you introduce yourself?**

My name is Linden Edgell. I am global head of sustainability at ERM.

**What was your contribution to the roadmap?**

ERM was engaged by WBCSD to facilitate the development of the roadmap. We had previously written the Sector Roadmaps guidelines for the WBCSD. That was the first sector roadmap that was developed based on these guidelines. We are also working on other roadmaps.

**Did you collaborate on the methodology, on the collaborative process or on the contents?**

All of them. We developed a methodology as part of the original guidelines and then applied the methodology in this instance. The methodology started first of all with a mapping of priorities and to that end, all sector companies in the project were involved. We developed spreadsheets or questionnaires for them to talk about their company focus on the SDGs. We did external research on what else is going on in the chemical sector. We brought that together, we did some initial work with the group to identify areas of action at the sector level. We involved a number of our own experts internally who worked with sectors around the world to provide challenge to that initial set. Then, we had several workshops with the member companies to refine the pathways actions and further helped writing the document.

**Ok, so you were really present over all the phases of development of the roadmap.**

Yes.

**Did you have past experience with WBCSD before the SDG Roadmap guidelines?**

We were founding members of WBCSD 25 years ago. We have been working with them on a range of projects and initiatives for many years.

**Did you also have past experience with the other contributors to the roadmap?**

Yes. Most of them are our clients on an individual basis. We also work with a number of industry associations, such as Cefic and the American Chemistry Council.

**Did the fact that you already knew each other facilitate the process?**

Probably, yes.

**Were you contacted by WBCSD to participate to the roadmap initiative? How did it start?**

During the development of the guidelines, we had a lot of discussions around which sector groups might be interested in being involved. We knew there was strong interest coming from the chemical sector, so we started to be involved in discussions with WBCSD, taking the lead of bringing member companies together.

**Also, the member companies are included in the final version of the SDG Sector Roadmap guidelines. Does it mean that they also contributed to the guidelines?**

Yes. We involved a number of companies along the way to make sure that the guidelines were practical.

**How were your interactions with co-chairs, WBCSD, project members?**

This project was very collaborative. We obviously had a specific role as we were engaged on a consulting basis to deliver specific elements. But in any of these exercises, we interact with stakeholders and a lot of work goes into trying to bring everybody along and reach agreements on industry's priorities, finding the different stakes etc.

**I understand this was collaborative. Were you all decision-makers on the same level?**

The decisions were very much given to the member organizations. WBCSD is very careful to ensure that the members take ownership. Our job was to frame up decisions and options and encourage member companies to actively take decisions.

**How did you communicate about the roadmap once it was published?**

WBCSD led their own campaign. We participated with them, from memory, in one or two external webinars. We also did a lot of our own internal awareness raising of our experts who work in the chemical sector to make sure that they were familiar with the roadmap and with the commitments and their relevance to companies in the chemical sector. We did a lot of work on that and more generally, we gave a number of webinars and exercises internally to try ensuring that our people are aware of everything in the roadmap in order for them to understand the direction of the sector, what is important etc.

**So, in a way, you also used the roadmap for internal purposes.**

Yes. But also, because implementation is always a challenge with any of these tools. From past experience of working with WBCSD, we wanted to communicate the message internally as we are in contact with many large companies in the industry, we may be working on the sustainability processes of some of these companies all around the world. The more we are informed, the more we can consult and help companies also understand where it fits in terms of their business strategy. We are trying to translate the way it is framed in the document into

very pragmatic solutions on the ground. The more we use it, the more traction it has on companies and industry associations around the world.

**It is true that due to the complexity of the chemical sector, it may have been difficult to put more details and implementation steps in the roadmap, which was different for the forestry sector. So, maybe this is also where you can act as a consulting company, to translate this document into implementation.**

Yes. Part of this different approach also comes from the nature of the working group. For example, the forestry sector group actively works together as a group on an ongoing basis, they have a history of setting KPIs, performance standards so they can hold each other accountable. The chemical sector group, at the time, did not have this type of working group. We very much adapted to the context of the different working groups in terms of how they are structured.

**To what audience do you think the roadmap is targeted?**

We had a lot of discussions about it: is it a roadmap for the members involved or is it a roadmap for everyone? The chemical sector is enormous and vast around the world. We tried to find a balance between all these so there is something in there for everyone. That is also why we came up with 5 thematic areas, with some being useful for some companies and not relevant for others.

**On top of the 5 areas, the structure of the document also seems to take into account the diversity of the audience, in a way that the first chapters are also about bringing awareness to companies. It goes from general to specific. Was it also a way to find a balance?**

Yes, absolutely. Most businesses are very pragmatic; without a business case, it is very hard to get traction. Helping reflect on what is going on in their businesses and aligning the opportunities to their case was very key to us. We wanted of course to say how to solve challenges but also to show there are opportunities.

**Do you think this also targets other types of audience such as investors, customers...?**

In the chemical sector, a lot of them are in each other's supply chain.

We do a lot of work with investors, for example, we have been using the roadmap with investors. This can help assessing if a company is ahead of the curve, the industry risks etc. This can give very good clues about the next years.

One of the big challenges of implementation that chemical companies talked about is capital investment, for example, with regard to new forms of packaging (given the focus on single use plastic).

**Do you think involving other types of contributors or more contributors to the roadmap would have brought interesting outcomes?**

This comes back to the context of the working group. They need to take into account the other contributors in order to facilitate the conversations and drive things. Given the nature of the group, I think it was the right choice to go the path that they did. The forestry sector, on the other hand, wanted to have other stakeholders involved in a different way along the process.

**What kind of contributors do you think are needed for this type of initiative?**

I think a mix is appropriate, as well as involving other members of the supply chain and actually see their interactions. We were very conscious about the fact that some of the biggest chemical companies are for example from China, but they were not involved in the process although they would need to be engaged in the discussions.

**What further steps do you think would be needed to further advance the roadmap and promote it?**

If we can demonstrate traction within the first couple of years with enough companies, then I think it will attract others. It will encourage other companies and sectors to reach out, on a global level, from China from example.

**Do you think there will be updates of this roadmap?**

We will realize that, at some point, there may be iterations, updates, case studies... I think people will recognize that we need to have things moving first. It may evolve.

**Do you think that this type of collaboration would be possible for all sectors? Are there specificities with the chemical sector that made it easier?**

I don't see why all sectors could not. All they need is this unifying body where all companies in the sectors can come together to enable the development of cooperation and trust to take something forward. This may be something for industry associations.

Also, the boundaries between sectors are incredibly blurred.

**Also, these companies are not sharing any confidential information in the roadmap, so it may not represent a competitive threat.**

Everyone wants to have a competitive edge. So, you need to follow a very fine line to make sure that you are respecting legal requirements.

**What rooms for improvement do you identify?**

I would have liked to see a little bit more ambition in there and have a bit more capabilities coming out of it. But we are aware of the reality of reaching consensus within the working group.

*i) Interview transcript 9: Anonymized project member*

|                           |                           |
|---------------------------|---------------------------|
| Date of the interview     | 13 May 2019               |
| Duration of the interview | 33 minutes                |
| Role in the Roadmap       | Internal                  |
| Name                      | Anonymized project member |
| Company                   | Anonymized                |
| Function                  | Sustainability Manager    |

**Could you please first introduce yourself and your position at your company?**

I am a sustainability manager responsible of one of the business units in our company. Within our company, we have an overall sustainability strategy and positioning, and depending on each business unit, we have different hotspots.

SDGs are also a key element for us. We have non-financial KPIs, and one of them is linked to using a target percentage of our R&D spending to contribute to the SDGs.

**Was this a smooth process to integrate SDGs in your already existing sustainability strategy?**

The top management is very supportive towards sustainability. In 2016, after the SDGs were published, we had to look at how we could integrate the SDGs in our processes. We made an intensive study to define the main business processes and how we contribute to the SDGs at the moment and what we can do to enhance them.

**Does the company have experience collaborating with sector peers for sustainability purposes?**

The Chemical Sector SDG Roadmap was not the first time that the company collaborated with sector peers. We also contributed to the Portfolio Sustainability Assessment methodology with WBCSD. There we had very intense collaboration within WBCSD; it is very helpful, inspiring and it provides a great opportunity to learn from each other.

**How did WBCSD contact you?**

From my work on Portfolio Sustainability Assessment, I learned from contributors that there was also a roadmap for the SDGs and I got involved this way.

**So, it was more an informal way to get involved in this project?**

Yes, I participated on my own initiative.

**Were there any specific requirements to be part of the project members?**

We have to be members to be able to contribute but there is no additional requirement.

**What was your goal in the roadmap as a project member?**

My goals were, first, to learn on how we can contribute in these kinds of discussions, and second, to actively participate to support the SDG agenda through the contributions of our company.

**How did you contribute? What kind of information did you share?**

The information I brought in were generated in our company and I shared the background from our business. In our company, we have already different hotspots, and in WBCSD working group, there are also companies who have different focus areas. It is very relevant that somehow all of them are respected.

**Did you also contribute to the guidelines?**

I am not aware of these guidelines.

**Was there any additional benefit from your participation to the roadmap for you and your company?**

From the roadmap, we defined different areas where we would like to dig deeper into, and I am also expecting that there are actions coming out of the roadmap. This is now where we are starting to look into. We arranged follow-up calls, this is a work in progress. We had a first follow-up meeting but we also see that it requires a new project, which most likely will be run by WBCSD.

**Did you have to adapt the materiality matrix from the roadmap to your company?**

The roadmap is a recommendation. Some companies decide to focus on certain SDGs, whereas others find all SDGs relevant. Therefore, there is no contradiction with the roadmap. Because the roadmap is a recommendation, it does not mean that you cannot do more.

**Do you follow the methodology of the roadmap to identify actions for other priority SDGs?**

As we had a similar strategy already, we use the roadmap as additional input. We want now to push the SDGs further.

**In what sense do you think the roadmap is useful to other companies from the chemical sector, for example, smaller companies?**

If you talk about SMEs who most likely don't have a full position in sustainability, it is more about seeing what conclusion they can draw from the roadmap. It depends on the owners of the company and the management, whether they would like to push sustainability and SDGs further in their business or maybe just take the results and use the impact areas identified to apply them to their businesses.

For me, the main point is first of all to make it public. Sometimes, I am wondering how to do that. The Portfolio Sustainability Assessment we had developed was hard to find on the internet. But WBCSD is really trying to spread the word.

**Do you think that the roadmap is useful to other stakeholders such as investors?**

It starts inciting because there are also actions identified that the chemical industry cannot do alone. There are some topics where innovations have the potential to contribute positively to the SDGs and are difficult to realize due to current investment models. Building insulation on a broad scale is such an example. Another question is: is it explicitly enough phrased that stakeholder can draw conclusions for actions? I believe the whole topic around how to change your business to contribute to the SDGs always involves deeper discussions. And the roadmap shall provide a guideline for further actions in partnerships.

**In this sense, it would be interesting for the roadmap contributors themselves.**

I believe so, because they are the ones who have now collected more insights. With the help of WBCSD we are now organizing the outreach and want to engage and inspire other companies and stakeholders.

**Do you see any room for improvement based on your experience and your knowledge of the industry needs?**

Now it is quite relevant to look at follow-up actions and organizing more cross-functional workshops: why not inviting investors, companies and downstream users. Based on the roadmap companies can do something on their own, and more effectively we can also jointly reach out to other sectors and consortia.

**Are you aware about the microsite linked to the roadmap?**

No. But I would like to know more about it.

**Do you think the roadmap contributors are representative of the industry?**

I think there were already more representatives than for the SPM. For this time the group was more diverse and also more international., Companies contributed who were e.g. representing the packaging industry, associations joined, and also Japanese companies. What makes it less representative is that there is no Chinese company. Also, there are only one or two American companies, so it remains still very much European-centered. I think it may create a bias, which is a pity.

**Yes, because the prospects indicate that China will welcome more and more of the biggest chemical companies in the future.**

Yes, no doubt.

**Do you think that in the future there could be iterations or updates of the roadmap, involving other or more international contributors?**

I think it would be very good if it would be the case. I know that WBCSD has an office in e.g. Shanghai and Mumbai so they might become more active there.

**Do you think the materiality matrix accurately represents the industry challenges and potential? For example, impact on SDG 15 is ranked as low.**

From the input we got, yes. It goes back to representativeness. The participants were not involved in the agriculture sector. The document is more looking at basic chemicals, specialty chemical industry. From the participants, we reached out to other sectors, we also involved e.g. the food sector.

It always depends on the experts which are present. Also, sustainability is an evolving science. In two years from now, we might see that we have underestimated, for example, circular economy.

**Do you think that this type of collaboration between sector peers is an efficient way to achieve the SDGs?**

I think so. Because it gives clarity about what everyone thinks of it, it gives a common foundation on which you can engage and think about future collaborations. On the other hand, now you find a lot of material, which makes it sometimes complicated: there are many associations and consulting companies providing roadmaps, tools... WBCSD is one piece of the puzzle.

Theoretically, the roadmap could be a reference document, but we are in a competitive environment: everyone wants to collaborate, but everyone also wants to define their own strategies to differentiate themselves. The concept of 'sharing' is still quite new and institutional boundaries exist.

**Is the roadmap replicable to other sectors?**

From other sustainability circles I am joining, I learnt that also e.g. telecommunication sector generated such a roadmap and certainly other sectors are also engaging with the SDGs too.

*j) Interview transcript 10: Mark Didden*

|                           |                                  |
|---------------------------|----------------------------------|
| Date of the interview     | 21 May 2019                      |
| Duration of the interview | 29 minutes                       |
| Role in the Roadmap       | Internal                         |
| Name                      | Mark Didden                      |
| Company                   | AkzoNobel                        |
| Function                  | Sustainability Reporting Manager |

**Could you please first introduce yourself and your position at AkzoNobel?**

I am Mark Didden, sustainability reporting manager and continuous improvement manager. On the one hand, I am responsible for the reporting of sustainability information to the outside world, mainly through the integrated annual report but also through our website and various sustainability rating agencies. The other part of the job is more outside in, looking at the external trends like the SDGs but also others like the TCFD recommendations (Task force on climate-related financial disclosures). We then use those external trends to identify any opportunity for the company and it is my role to make that translation.

**In general, what are the initiatives regarding sustainability at AkzoNobel?**

In principle, we have been embracing sustainability for quite a lot of years. Our principle is to create social, economic and environmental value by scaling up our positive impact across these 3 dimensions and minimizing our negative impact across those as well. You have to do all six things at once. In recent years, we have been focusing, on one hand, on resource productivity, which is the impact from our operations and supply chain, where we really want to minimize environmental impact and optimize material use, by collaborating closer with suppliers on the materials we source, try to source more renewable materials, but also good management of waste and our energy consumption. Inside our company, anybody who works in operations or supply chain management has one of their personal goals linked to an incentive on resource productivity. On the other hand, we also work on value-setting, which is the development of sustainable solutions. This way, we look at people working in research and development but also marketing and sales. We want to develop more sustainable solutions through innovation and R&D but also bring more sustainable solutions to the market(s) where they can have the biggest impact. People in R&D or marketing and sales also have goals linked to sustainable solutions.

**In order to do so, do you use some tools provided by the business? How do you link your strategy to the SDGs?**

The governance is that sustainability is in principle integrated in the company. We have a very small central team that helps set definitions and establish KPIs. For sustainable solutions, we have eco-premium solutions and, together with the business, we have made a definition of eco-premium: we have to be better than the mainstream products in the market on certain criteria and not worse on the others.

The good thing with the SDGs is that they are a very recognizable and comprehensive set of goals, but they are also not new topics. Because they are not a surprise, it is relatively easy for companies that already have a sustainability strategy to link to SDGs on which they can have the biggest impact and make nice infographics. But we use the SDGs in another way, more at the start of the project. For example, last year, we reviewed our top 20 countries in terms of marketing decisions, and for each country, we looked at which SDGs were the most important, because each country has different development priorities. We could do this based on publicly available information, and that is where SDGs are particularly useful, as they provide a nice entry point to understand what different countries are focusing on. Based on that information, we could use that as input for our marketing analysis to really understand which solutions are better suited to which markets. For example, in China, air quality is a very big topic and we have solutions that help addressing that. We really try to use SDGs as an input in our process, rather than a checkbox.

**It is interesting to identify priorities depending on the country. It leads to the fact that it may be very complex to represent the whole global industry in one matrix for example.**

The difficulty with the chemical sector is that, by itself, it is very diverse and heterogeneous. It is different for the utilities sector or the cement sector where operations are quite similar as well as the output. At the start of the process, we did a quick inventorization about which SDGs were prioritized by each participant in the roadmap and there was hardly any overlap. Interestingly, we did something similar in the Netherlands (with the companies that are part of the Dutch Sustainability Growth Coalition from very different sectors) and there was more overlap among these Dutch companies than among the roadmap's participants, which shows that we have very different activities and priorities.

**How did you get involved in the creation of the Roadmap?**

There was a need among many companies to do something about the SDGs, looking for how to best address them, understand how we can contribute to them, report on them and prioritize. As it is often the case among member companies of WBCSD, instead of each of us doing that

in isolation, we decided to do that together as a sector. Even though it is quite a heterogeneous sector, the chemical sector at WBCSD has a strong record of joint development of tools and methodologies. Having this common approach is more efficient, quicker and probably higher quality than independent actions.

For AkzoNobel, SDGs are of course very important. We take sustainability very seriously; it is one of our core principles. It is also a value proposition for employees. That is why we decided to co-lead this project to help steer the project in a way that we think is the best to proceed.

The SDGs are close to my heart. I used to work in WBCSD before I joined AkzoNobel. I helped developing the SDG Compass, which is the first business guide launched after the SDGs were approved. Ever since, I have been fascinated by how companies can best contribute to the SDGs and how to best report on them. That made the fit quite logical for us to participate.

**What was your role as a co-chair?**

It depends on each WBCSD project. In this project, the role was not very different from other participants, as everybody could contribute quite strongly, give their views and provide their input. At some points in the process, when decisions needed to be made about the direction to take, the co-chairs were first consulted. We would propose our directions to the group. It was more of a steering role in a few moments during the project. We were not dictating what we should do.

**From my understanding, WBCSD tries to make their members accountable as much as possible.**

This is correct. The principle of operating of WBCSD is member-led. WBCSD can initiate, catalyze, facilitate projects but the members do the work and create contents.

**What about the role of ERM? Did they also have this position of decision-maker?**

No. WBCSD was not exactly taking the decisions, it was more the co-chairs, but it was done in good agreement with WBCSD and the other participants. WBCSD's role was to facilitate and ERM's role was to manage the project and also to provide technical support.

It was the first sector for which a roadmap was done. ERM helped creating guidelines and templates to structure the discussions, collected inputs from all the different project members to then translate them into meaningful priorities and impact areas. ERM helped us developing the contents by developing the tools.

**What were the different steps of the collaboration?**

If I remember correctly, we started by identifying priority areas where we could agree the chemical sector could have the biggest impact. Because it is a very diverse sector, we defined impact areas through which we could have an impact on the SDGs. We also thought about

which initiatives were already existing, inside and outside of WBCSD, chemical-specific or not. We had a view of where we could have the biggest impact, and where work is already happening, leading to a gap analysis of where we should scale up the work or start working.

This is a nice publication to show where we can have the biggest impact but also an agenda-setting framework to engage other chemical companies and associations to show that, if as a sector, we want to move towards 2030, these are the areas where we should start collaborating and doing more.

**Ok, so this was made through questionnaires but also meetings, workshops.**

Yes. We had a few workshops in Geneva, to do the exercise of understanding what the chemical sector can do, what initiatives we can take, and what programs we can scale up to have the biggest impact.

**What are the target audiences of the roadmap?**

I would say, in principle, companies from the chemical sector. Anyone from the chemical sector can pick it up to understand where the sector can have the biggest impact and where as a company you can contribute. Other chemical associations are also targeted. Another audience is policy-makers and governments. It is a nice way to start the conversation to find common ground. We can say: “we have done this very detailed assessment on how the chemical sector can contribute. Can we have a conversation on how we can collaborate?” It is a tool to start dialogue.

**Do you think the targeted companies can be small companies or companies which are less mature in terms of sustainability?**

I think it could help to see where the opportunities lie. If you are still starting the journey, it can help you to skip a few steps by already having an initial view of what the impact of the sector is. When we developed it, I don’t know if we made that explicit, but most companies participating were very big multinational companies, so we did not write it with SMEs in mind, although they could still use it if they want to.

**What about investors?**

Possibly. If there are certain investors that are looking to better understand the sector in terms of sustainable development, it could be useful. But investors are mostly looking at what companies do themselves. If the information is pointed that we collaborate with others, they appreciate it.

**For example, could the roadmap be used by investors to enhance comparability between companies?**

That would be difficult. There are a lot of agencies and benchmarks that try to compare companies with each other, but it is not easy. Even within companies of the same industry, the operations can be of a quite different nature. Therefore, comparability would be difficult because of the diverse nature of the chemical sector, I think. Also, improving comparability was not really the purpose when we made the roadmap.

**Does the roadmap target employees, on top of sustainability managers?**

I think it is also for non-sustainability professionals. When we published it, there was a quote from the CEO in the document. Internally, this helped raising awareness among the company about how interesting the topic is, the existence of the SDGs and the contribution of AkzoNobel to them. It helped creating a sense of pride among employees and a sense of realization that what we are doing is bigger than ourselves. In that sense, it was a nice engagement tool.

**What are potential areas of improvement?**

I think it will always be difficult to do this for the chemical sector. We ended up with quite a big set of SDGs. It is unavoidable because of the diverse nature of the sector. I think that if it is done for other sectors, this may be focused on a smaller set of SDGs.

In terms of process (but it is normal because we were the first sector to do it), if we would do it again, we could find more efficiencies, maybe start with impact opportunities and start more top-down rather than bottom-up, because we realized at some point that there were so many things that we could do as the chemical sector that it was a bit too wide, so we had to do these impact opportunities. A challenge of this process is that in the end of the day, you are talking about topics which are applicable to the whole world, which are huge in scope, and it can be a pitfall to go into too much details. When you have workshops and discussions, it is quite important to stay at relatively high level because otherwise, it is difficult to make progress.

**Do you think the roadmap participants were representative of the industry?**

It is a self-selecting audience. Companies that are members of WBCSD are, by design or definition, more leading in terms of sustainability. Those who decide to participate to the development of such a roadmap are even more progressive. In that sense, in terms of ambition, we are definitely the leaders of the sector, therefore, not necessarily representative of the whole sector.

**Do you think there will be updates to this roadmap? What are the next steps of the roadmap?**

I think that at WBCSD, there will be roadmaps for different sectors. I think that for the chemical sector, this is an extra document to continue building on programs that the chemical sector can do as a sector or together with other sectors. It is really an agenda-setting document. We now

know what the priorities are, which can help us developing the work programs for the coming years. We are continuing actions on sustainable portfolio for example, which is one of the focus areas, and other topics that were based on the publication will then be translated into work programs, at WBCSD as well.

**Are you still in contact with the other participants?**

We are in contact. There are regular meetings under WBCSD, at least twice a year. But I don't believe we are planning to make an update to the roadmap itself on the short-term. We are taking the roadmap as a starting point to then develop programs based on its outcome, so how we can take next steps on the areas that we identified as priorities.

