

Foreword

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Introduction: Economic growth will come from startups

Our world keeps on changing and keeps on evolving throughout the years. New ways of living, consuming, thinking, new politics, new rules, new products, keep on appearing and may turn out to be game changers for our personal and professional lives. Change is the very nature of human beings and of life itself. We are facing a reality in which we are confronted to issues that are seeking solutions in our daily lives. Demographic growth means that we have to aim at economical and social growth to provide adequate solutions for all. Improving these social conditions means that we have to aim at technological development in order to make our lives easier and at economic growth in order to provide jobs and decent salaries to our population. Everything is linked and business has a huge role to play in this cycle.

Companies that are now considered as leaders in terms of research, employment and business models were just « little kids » a few years ago. Indeed, companies that are part of GAFAM as we acknowledge it today had to start from the bottom. And it is this « bottom » that I wish to analyse throughout my thesis. Becoming a star company in a particular sector means going through processes that may help in this market conquest. The purpose of this thesis is to identify critical success factors for a start-up in Europe, and more particularly in Belgium, that guarantees success and gets it to the next stage of life, the scale-up. A start-up is a human institute that seeks to create a new product, a new service in order to bring a new solution to an existing market and this institute faces a lot of uncertainties regarding its future. A scale-up, on the other hand, is the stage of the institute between a start-up and a company fully established meaning that a scale-up is more mature than a start-up but isn't fully settled because it is still in an important cycle of growth.

The goal is to identify the critical success factors for startups in the different countries. We will observe how the road to success is created and how this road differs or joins the Belgian case.

Around 90 % of startups will fail or have already failed (Patel, 2015). The reasons of these failures are various. Startups that have faced a closure have the opportunity to write an essay explaining what went wrong. An American study conducted by CB Insights, that took into account 101 essays on startup failures, regardless of the sector, showed that in 42% of these

failures, there had been insufficient market research before the launch. Indeed, these failures are explained by the fact that there was no need for the product on the market targeted. This study also showed that in 29% of the cases, failures were due to a lack of capital and fundings. The other important causes for failure are: selection of unsuitable team members, an unexpectedly high level of competition or mispricing of the product (Griffith, 2014).

Section 1: Theoretical Framework: USA

- **USA: benchmark country for startups**

The USA is generally taken as a benchmark when it comes to startups. The development of the Silicon Valley and the success stories that have emerged from the USA are very impressive. The Silicon Valley attracts various creators of technological innovations; it is a benchmark for a lot of people but this adventure also presents a lot of risks that have to be taken into account. The idea that we have of the US market is generally flawed. Indeed, European countries have a more effective support system for startups. In the United States, public services do not support startups. Support comes from private investors. The USA isn't a fiscal paradise for startups unlike other European countries that we will analyze later in this report. When you create a startup in the USA, the company itself doesn't have to pay that much taxes, 21% of its income. Generally, the entrepreneur pays the taxes that the start-up is facing which means that he is taking all the financial risks when it comes to the creation of his enterprise (Tsagliotis, 2012). This financial risk is compensated in some way by the fact that the wages for an entrepreneur in the USA are usually higher than in European countries. The tax system also depends on the State in which the company is located.

Another important difference between the USA and Europe are the costs of the administrative procedures for the creation of a company. The USA is a very procedural country and a lawyer is often needed, leading to increased costs. The processes in Europe have been simplified and do not require the support of a lawyer. Thanks to the legal support, however, the time needed to complete the administrative procedures in the USA is quite short compared to Europe, where company creation usually does not need legal assistance but can take longer. To summarize, the creation of a company from a legal point of view will be done more rapidly in the US.

All big players are located in Silicon Valley, which offers to startups greater opportunities for networking. Networking is the action or the process of exchanging professional information between individuals or entities that have a common purpose (Kagan, 2019). The support system is thus more natural in the USA than in the European countries. Indeed, the general feedback from startups that have emerged in the Silicon Valley is that individuals or entities approach each other naturally in order to understand partnership opportunities and understand how they can bring value to an emerging business. People are more accessible in the USA than they are in Europe and this is a general fact for startups as well as big companies. The exchanges are more direct and the help is more precise as it is not necessary to have a long-term relationship in order to obtain help and support from others.

There is also a certain form of taboo in Europe that doesn't exist in the USA. Big companies, in Europe, don't consider as much working with startups as they do in the USA where the corporate culture pushes big companies to stay on top of innovation, creation, product development and new business models. This corporate culture pushes big companies to work with and rely on smaller structures that generate innovation. These smaller structures also have an interest in working with big companies as this can lead to rapid growth that will allow them to quickly obtain the critical size needed to survive.

In Europe, the beginning of the startup's life cycle usually comes from public support whereas in the USA, this initiation comes directly from the capital risk taker and from business angels. Business angels are individuals that provide financial help for startups. These "angels" come from different backgrounds. They can be friends, family members or other entrepreneurs with a certain interest in helping the business take off. They can either finance the business just enough in order for it to take off or they can support the startup through its difficult stages before finding a stable path of growth (Ganti, 2019). For certain experts or entrepreneurs, this fact explains why startups are still emerging at a higher rhythm and in a bigger number in the USA than in Europe. On the other hand, the capacity to raise fundings is quite similar between both continents so even if the system is different the financial support system in the USA isn't more advantageous than in Europe.

The labor cost is higher in the USA than in Europe. When recruiting specific profiles, in the USA, such as engineers, this labor cost will be 20 to 25% higher than in Europe. It can be

very difficult for startups to recruit the right profiles at a low cost in the USA. This could push them to look at Europe as a solution. Some companies, like Deezer (music streaming) or Criteo (online advertising), have moved their development center to Europe for this reason (Tsagliotis, 2012).

The US market is the biggest in the world. The US market represents 325 million people and a GDP of 20 trillion of dollars. It is the most sophisticated market and in order to become a global leader in a specific sector, it is really important to establish yourself on this market. European startups that have the ambition to grow internationally need to study the opportunities and possibilities they have regarding the USA. The competition, however, present on this market is fierce. The market analysis and the marketing strategy in the USA will be much different from the one in Europe. In general, a company has to quickly reach a large number of consumers in the US market and this number is generally way higher than in Europe to make a breakthrough.

There is also a cultural element to be pointed out. In the USA, there is a tendency to embrace change and the innovation that allows this change whereas in Europe, there is a certain form of reluctance to take business into new direction. This has an important impact on startups for both sides. In the US, there is a structure that is put in place in order to motivate and encourage change and innovation from startups. In Europe, there is a reluctance to change that doesn't allow startups to fully develop their concepts. So startups in Europe are continuing on the same paths established by big companies, bringing little touches of innovation. In the US, these startups are bringing rapid and radical changes, able to be game changers for the market.

- **Hypotheses: success factors identified in the USA**

Based on our analysis of the dynamics of startups in the USA, we have identified some critical success factors. These critical factors will constitute our hypotheses and will be subsequently verified for the selected European countries. The objective is to highlight which specific factors countries have in common and which are a must when creating a company.

- **Funding capacity**

A startup, like any other company, has a need for cash flow. Regarding the study conducted by PWC France, it not feasible to create a startup, in Europe, with less than 20.000€ capital (PWC France, 2017). In the US, this amount can rapidly reach the 100.000 USD (Dehorter, 2018). Inadequate capital raising can thus be fatal. A startup is always confronted with a lot of expenses, especially at the beginning of its activities. These expenses are of different nature, such as recruitment, infrastructure, R&D, material purchase, salaries... This is a crucial element for startups. Most of them don't have the capacity to finance their activities during the first 12 months. In addition, a startup, since it is new on the market, often faces a lack of experience in terms of investments and cash management. Successful startups are generally the ones that have sufficient capital to finance their growth and to sustain it. The type of fundraising can differ. As demonstrated in the report of the « 2018 Startup Outlook US Report », we can see that the financial support system in the USA comes from private investors and not from public orgnaizations. 78% of private investments in American startups have been registered in 2018. The rest of the capital comes generally from organic growth and from the founders.

- **Administrative Procedures**

In the USA, the administrative procedures are quite expensive since there is generally a need for an expert in order to analyze the financial situation and to select the best legal status for the future company (which directly links to the capacity of fundraising). But this also reduces the time it takes to create the startup. The costs can rapidly reach thousands of dollars while in Europe, since it is possible for an individual to register his own company, these costs generally don't exceed a couple of hundred euros, according to the European Union. The speed of the process in the USA means that the startup faces fewer uncertainties. A company

doesn't have to wait weeks before receiving a feedback on the completion of their financial and legal documents. The lead-time to set up a startup depends on the country and the legal status of the startup. In the USA, one can create ones company within 24 hours and it is not necessary to wait until the legal status has been filed to start operations.

- **Location - Infrastructure**

A startup is in need of infrastructure in order to develop its operations. Infrastructure can take different forms such as physical, legal, accounting or even marketing infrastructure. These types of infrastructure have different costs depending on the city or the country. In addition, as in Silicon Valley, it has been identified that specific areas, specific locations or cities within countries constitute a real advantage for startups. Not only are these areas attractive in terms of office rents, geographical location, transports or communication systems, but they also offer different sources of networking. Setting up a startup in Silicon Valley means to have a much greater opportunity of receiving advice from big corporations, of having a greater visibility and recognition around the world and of having extra benefits like co-working spaces, expertise from researchers and qualified technicians as well as access to useful resources provided by other companies. Silicon Valley represents around 20% of the world's technological activities (Axel, 2018).

- **Tax System**

The tax system plays a big role in the development of startups, both for those who provide external support, such as external investors, and for startup creators. In the USA, there are many capital risk takers (54% of the global investment in American startups in 2018 came from these capital risk takers) that don't hesitate to invest in startups because there are tax advantages regarding these investments such as tax deductions or tax refunds. In addition, there are also tax benefits that allow startups to grow faster. Successful startups have often received directly or indirectly (through the investors) an advantageous or adapted tax treatment during their development process.

- **Recruitment - Employment**

In a small structure like startups, there is a great need for a great loyalty and team cohesion around the firm's project. Employees of startups have to become their best ambassadors for the outside world, they have to promote the company's values in order to create a common motivation and to allow the startup to move in the right direction while offering the correct environment for its employees. The team spirit is really important to offer the startup its best chances to survive in the first years of development. In addition, the labour cost differs from one environment to another as a result of economy policy, cost of living and the quality of public services. In the USA, the labour cost is at a high level compared to Europe. In Europe, according to Eurostat, the average labour cost per hour is 27,4 € whereas in the US, the average is around 40 € per hour, for the same specific job. This can be explained by a different management culture. Employees with more skills and talent perform better and cost more which explains high cost of wages in the USA. This has the advantage, on the other hand, to increase loyalty and motivation. Successful startups are the ones that properly identify the required skills and that manage to recruit the people with those skills. They are the ones that manage to keep their core employees by offering them attractive conditions and personal development.

- **Networking**

Knowledge is a key success factor. The more one knows, the better one can anticipate and have a clear vision on the following steps and on the startup's strategy. Knowledge doesn't come from the management team only but also from employees and from networking. Indeed, more experienced startups, big companies, experts and even business angels can bring a different vision and strategy for a startup. A startup will always face uncertainties in the first years of operations and thus will have to learn and may need guidance regarding all aspects of its business. For their part, big companies have the need to stay on top of innovation. In the USA, these big companies don't hesitate to invest in startups, either by integrating them or simply by advising them. These big companies see this partnership as an advantage as it allows them to diversify, improve or change their business. Startups see such partnerships as an advantage in terms of advice, investment and growth opportunities. Successful startups are the ones that find the correct connections for their activities.

- **Market needs - Innovation - Sectors**

Being a startup means bringing an innovation to the market. In our fast changing business anticipating change is an integral part of management. In order to keep its competitive advantage, startups need to constantly work on their innovation. Startups often start on mature markets where competition already exists. The goal for the startup will be to reach as many consumers as possible, bring a radical change onto the market and constantly improve its business model in order to find the right solution. A successful startup manages to identify the market's needs and is able to offer a different solution that is different from those that already exist. Innovation, business strategy, marketing and market analysis are thus success factors. The difference with big companies is that a startup generally has one shot only at success whereas big companies already have an important portfolio of activities and one failure doesn't necessarily harm their overall operations.

- **Methodology:**

First, we will analyze the growth rate and the number of startups in the selected countries. The goal is to see if this growth is positive or negative. To do this we will look at whether the number of startups created in a country increases or decreases on an annual basis and whether we can find any trends over the last couple of years. If a country has a positive growth rate for startups, we conclude that its ecosystem is functioning even if it can be improved. If the growth rate is negative, we conclude that the country is experiencing difficulties in providing the right conditions to develop and create new businesses.

Secondly, we will analyze the different factors that compose the country's ecosystem for startups: the country's economic policy, politics, education and the social conditions. These are all the elements that play a key role on entrepreneurship initiatives and on the creation of startups.

Thirdly, we will analyze the different external supports that a startup can receive in its country. This ranges from financial investments and benefits such as government subsidies over non-material such as knowledge sharing, professional advice to improve the internal structures and processes or even the sharing of resources between big companies and startups.

A fourth area focus will be the way in which a startup manages to foster employees' loyalty and adherence to the common project. We will also look how startups can recruit suitable personnel and the adequate skills. And finally, we will analyze how the labor laws help or hinder startups.

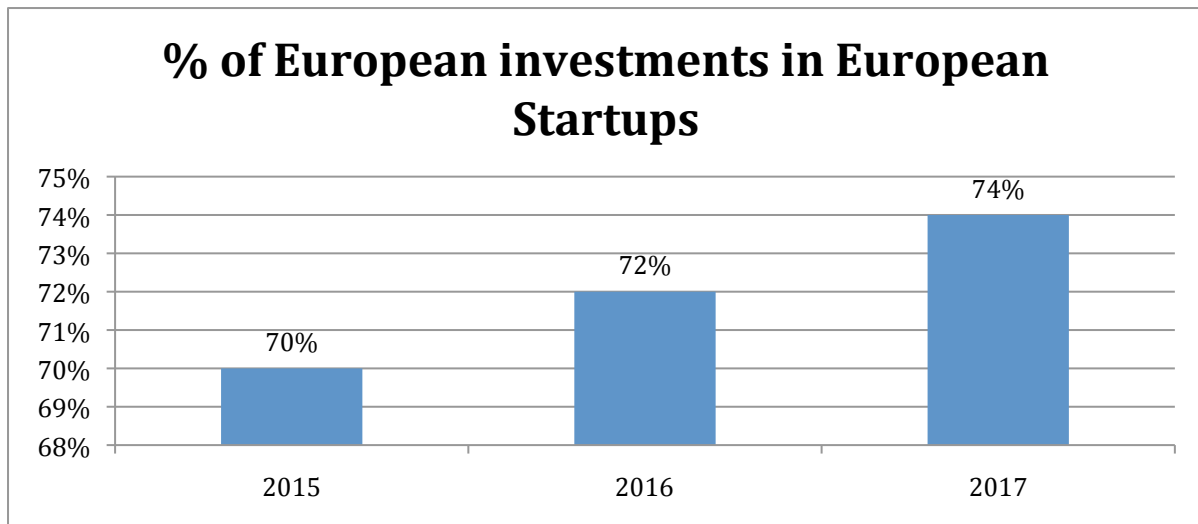
Finally, we will also analyze how these startups respond to the market's needs. This part of our analysis will allow us to study how innovation comes into action and how startups manage to find the resources in terms of knowledge, skills and technologies.

Section 2: Practical Framework: Europe

- **The current status of Europe:**

It is important to acknowledge that Europe, as a whole, realized the potential and the challenges that exist within its territory. Europe understands the importance of a beneficial ecosystem for startups and understands the challenges it will have to overcome, like the language barrier, in order to reinforce such an ecosystem. Indeed, Europe is caricaturized by a vast cultural diversity as well as the presence of a lot of big companies. A certain form of maturity is gaining Europe and different actors with different sizes and influences are at the forefront of new projects that are aiming at international growth. The ecosystem for European startups already exists and globalization is the new main ambition for these startups. However, a barrier to the development is that European countries have a tendency to invest only in startups that have originated in their own country which, in both the short and the long term, leads to competition within Europe (La rédaction les clés de demain, 2018).

The current position of Europe regarding startups is that, in general, it is a market offering a lot of opportunities for international growth. In terms of numbers and statistics, there are also some interesting data that go in this direction. European investments in European startups are constantly increasing. In 2015, 70% of total investments in European startups came from Europe (La rédaction les clés de demain, 2018). This percentage reached 72% in 2016 and 74% in 2017 and is still increasing.



American investments in European startups represented 22% of total investments and Asian investment only 4% in 2017. European companies realize most of the buyouts of European startups. There are less buyouts than in the USA but the buyouts nonetheless shows a strong consolidation within the European market. Europe has created big companies in the past but today the ecosystem has evolved and these big companies have to reinvent themselves. This reinvention comes in the form of innovation. Startups are the key drivers towards this reinvention as they bring innovations, new ways of operating and thinking. Big companies have to be able to integrate these smaller entities that develop innovations that the big companies can't develop on their own. We also observe a positive trend from young people to develop and create their own company. On average, 37% of young people, across Europe, want to start their own company (Bochniarz, 2015). Of course, this percentage differs from one country to another. This is a sign that the ecosystem in Europe is moving in the right direction.

Europe has tried to replicate the American model in order to build the right ecosystem for European startups. The American model is based on the enhancement of rapid growth, experimentation and risk taking. The problem is that it doesn't fit European countries that prefer more time to analyze situations and avoid risks. The American model is thus not the appropriate model regarding European culture, European politics or even for the European economy. For example, in the USA, everybody speaks the same language whereas in Europe, the European Union recognizes 24 different official languages.

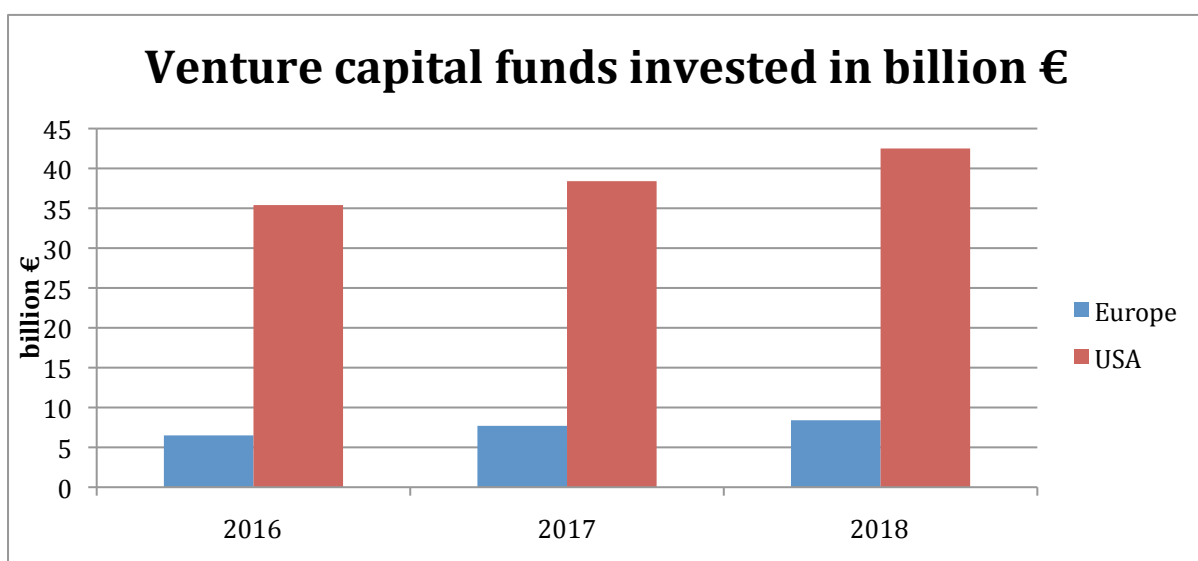
The US is mostly a homogenous country when it comes to economy, culture and language whereas Europe is mostly a constitution of a large diversity of culture, languages and politics. These differences should constitute strength. Indeed, Europe is a great ecosystem to develop a startup and offers a lot of diverse possibilities to startups to allow them to become rapidly creditworthy. If you manage to develop a startup across a heterogeneous continent, then you already have the skills to develop it internationally. This represents one of the most attractive arguments for the European market.

However, the success culture is significantly more developed on the US market than on the European market. When a startup is created in the USA it has the objective to become the new game changer, the new big company. In Europe, these ambitions are way more moderated, as startups wish to stay on their national market, and this might be a real flaw that must be adjusted in the future.

Another important element to take into consideration for Europe to become the giant market for innovation is its capacity to recruit and retain talents. These startups need tools that are more effective and easier to use. When it comes to talent management, European startups are facing competition, regarding the offers, salaries, culture and values, extra legal benefits, visibility and the challenges offered from American and Asian companies. To face this competition, the European Tech, which is an interconnected relationship between technological startups and companies across Europe, is reclaiming a generalisation of the principle of stock options across the continent. As a reminder, a stock option is a right for the investor to buy or to sell a stock at a predetermined price and within a defined period of time with an expiration date. The European Tech wants to reinforce or develop the fact that employees can participate financially to the development of their own company. This financial participation is translated in stock options within the company. Not only will the employees be more involved by this system and this structure but they will develop interest in the running of the company, develop fidelity and a more profound and transparent relationship with the company which is not negligible when it comes to talent retaining. The founders of European startups want employees to benefit from the success of their company which is a huge change in the traditional economic and business culture within which Europe evolves or used to evolve (Bregeras, 2018).

Europe puts in place various tools and projects to help the creation and the development of startups. What are the incentives that are triggered in Europe as a whole? And the politics' positioning on the question?

The European Commission and the European Investment Fund have just launched a program called "VentureEU" which is a program born to promote venture capital funds within the European Union. Europe is full of talents, researchers with an international reputation and skilled entrepreneurs. However, startups have troubles growing into scaleups (only 5000 French scale-ups and 13.000 German scale-ups, in 2018 compared to the thousands of startups created every year). The difficulties lie in the fact that the operating mode is different when aiming at industrialization, the compliance rules are complex and there is a lack of external help in crucial stages of the startup's life cycle. The first years are critical and financing plays an important role for the development at national and international level. The venture capital funds play a much more important role in the US than in Europe but these capital funds are essential. If we take a look at the numbers, we can see that these venture capital funds represent about 6.5 billion € invested in Europe in 2016 whereas, in the same year, these venture capital funds represented 35.4 billion € invested in the US (European Commission, 2018b). In 2017 and 2018, these numbers reached 7.7 billion € and 8.4 billion € for Europe while in the US, these numbers reached respectively 38.4 billion € and 42.5 billion € (PitchBook, 2019).



The VentureEU program was launched with the objective to encourage investment in European startups and European scaleups. The Commission and the European Investment Fund have announced, early 2018, that 6 participating funds (IsomerCapital; Axon Partners Group; Aberdeen Standard Investments; LGT; Lombard Odier Asset Management; Schroder AdvEq) will receive full support in order to invest in the European risk capital market. In practical terms, the European Union will finance up to 410 million € and help these 6 funds to collect and rise up to 2,1 billion € of public or private investments. This program will have an important impact as it will double the current investment in venture capitals. Still following the European Commission, around 1500 startups and scaleups present in Europe will have access to this new source of financing.

Europe has also other financial programs (217 in total, which can be found on the official European website) to help the development of startups within a specific field such as the EU program for Employment and Social Innovation (EaSI). This program focuses on the equitable trade and on the sector of renewable energies. It was launched in 2015 and offers the possibility to benefit from low interest rate loans without the obligation to provide guarantees regarding the pay back. The goal of such a program is to encourage, from one side, the reinforcement of the economic capacities from micro financing structures and on the other side, to promote the development of social companies by simplifying the financing of their activities.

Another program put in place by the European Commission is called H2020 and it is specifically encouraging innovation. The European Commission and the European Bank of Investment group have launched this program in order to facilitate the financial support and loans that the innovative companies are receiving. Indeed, “Innovfin”, which is the European financial support system for innovation, offers a variety of financial solutions for research projects as well as innovative projects launched by startups, scaleups or even big companies. These financial solutions are adapted to every single company in order to make their development easier and more effective. This specific program is based on a principle of guarantees and counter-guarantees and is structured to raise between 25 000 euros and 7,5 millions of euros. These financial solutions offered to innovative companies are done thanks to financial intermediaries such as the BPCE (Banque Populaire à la Caisse d’Epargne), which is a French organization or the FEPRABEL (fédération des courtiers en Assurances et

des Intermédiaires financiers de Belgique), which is a Belgian organization. In return, these financial intermediaries have the right to receive, in terms of guarantees or counter-guarantees, from the European Bank on Investment group, an insurance to recover a part of their potential financial losses (Lalanne, 2016).

But that is not all that the H2020 program has to offer to these types of companies. The H2020 also includes the SME Instrument, which is specifically taking care of small and medium innovative companies that are demonstrating ambitious projects, trying to develop their business model and their internal structures but also trying to grow internationally. This instrument offers support up to 50 000 euros for a company after assessment of its project and the feasibility of their innovation. This SME instrument can intervene during different phases of development: from the Research and Development phase (by according up to 2,5 million € in terms of subvention) up to the commercialisation phase. All of these phases are applicable independently in order to receive financial support.

In order to allow more companies to benefit from this program, the European Commission will launch, officially in 2021, a European Council of Innovation. Global competition is increasing and Europe has to increase its innovative capacities. The European Commission will invest around 2 billion € in order to accelerate the creation of the European Council of Innovation (European Commission, 2019). The goals of this European Council will be to make sure the support programs are more understandable and easier to reach for startups. It will have to insure a more effective following of the different startups that have actually received subventions and finally, it will have to change, when necessary, the rules of attributions and selection of the different financial support instruments.

Another specific program is called “Cosme”. Its objective is to improve and facilitate the access to subventions and other sources of financing to these companies in all the phases of the company’s life cycle. The life-cycle of a startup has different phases: The research and the development of the idea, the creation, the product/market fit which is the phase where the start-up has reached a stable pace of growth with the right product, the scaling which is the phase where the start-up accelerates the development of its strategy and is starting to set-up the necessary structures to respond to an industrial demand. Cosme raises loans and capital investments for startups thanks to two specific tools: the loan guarantee tool and the capital

risk for growth tool. The first tool offers guarantees to financial institutions by splitting and diminishing the risks they are taking by investing in startups. By splitting these risks with financial intermediaries, Cosme allows them to expand their start-up portfolio. The second tool offers a certain capital to the investment funds that are providing money to startups, especially when they are in their growth phase. This tool should allow, in the future, around 500 startups to receive between 2,6 and 4 billion € in terms of investments in capital.

Cosme also is in charge of the Socama program. This program helps entrepreneurs to acquire materials, vehicles and to undertake landscaping constructions or even expanding constructions. This program can finance entrepreneurs up to 300.000 €. The duration of the refund is between 18 and 60 months. Cosme also finances the Enterprise Europe Network, which is known as the EEN. The objective of this network is to help startups to find the adequate social and technological partners and to help them understand the legislation that they are facing while managing their start-up and finally, to help these startups to access the European Union's financing and support. Furthermore, Cosme supports the exchange program known as "Erasmus" for young entrepreneurs in order for them to acquire the necessary competences and skills to help them manage a company and make it grow and flourish. The "Erasmus" program for young entrepreneurs allows them to work with directors of important companies, in another country and for a period of 6-month time. This learning trip is financed by the European Union and the young entrepreneur taking part to this program can receive as a financial compensation between 530 and 1100 euros per month following the country (Lalanne, 2016).

These are only a few of the support systems and programs that exist in Europe. In total, 217 financial programs exist specifically for startups. These programs can help thanks to an envelope of 1.1 billion €. These support systems are accessible either directly from the European Union or either through programs that are managed at a regional level. Not only do startups have access to these various financial supports plans but they also have access to a lot of different non-financial programs such as service supports. Startups are in fact the principal beneficiaries of the Competitiveness and Innovation Framework Program (CIP) launched by the European Union in 2014 and that will direct this issue until 2020. An envelop of 1,1 billion € will serve for the financement of the investment loans in capital risks

in order to help a total of 350 000 startups to begin their activities, to develop them and to encourage innovation (Welcome Europe, 2019).

It may be interesting to highlight certain formalities on how to create an enterprise in Europe and what conditions have to be fulfilled.

Every European citizen has the right to:

- Create a company even as an individual entrepreneur in every single country part of the European Union as well as in Islande, Norway and Liechtenstein.
- Create a branch or subsidiary to a company already registered in a country of the European Union.

The paperwork for the creation of a company is of course different from one European country to another. However, the European Union encourages every country to reach certain objectives to facilitate the growth of startups born. Indeed, here are some of the EU's objectives:

- The creation of a company has to be done within 3 working days.
- The cost of the paperwork shouldn't exceed 100 euros.
- It should be possible to realize all this paperwork through one single administrative organism.
- It should also be possible to fill in all the paperwork through online registration.
- It should also be possible to register a company in another European country online upon national contact points which allow to acknowledge all the paperwork needed in a specific country to be in order.

Now that we have a better understanding of the European Union's mindset regarding the development of startups and how it puts in place its tools to support this development, we will analyse 4 different countries within the European Union, different in some ways regarding the ecosystem installed in their territory for startups.

- **The selected European countries to analyze:**

We will analyze 4 different countries within the European Union: Germany, France, the UK and of course, Belgium.

The main reason why we have selected these 3 countries in addition to Belgium, is that they are part of the 10 world's largest economies. Behind the U.S., Japan and China, we find Germany, France and the UK (Appendix 1.a.). This ranking is based on the GDP of the different countries. If these European countries want to keep their leading position at a global scale regarding this GDP ranking, they need to put incentives in place for companies, authorities and administrations to keep on producing wealth within their limits.

- **Why we chose Germany**

Germany has always been considered as a huge industrial country. In Europe and even worldwide, Germany is, like the Silicon Valley for innovation, a reference in terms of economics, business and social development. Since several years, Germany is known for the success stories of its business model. If we take a look to Europe's recent history, it is impressive to see how well Germany got through the crisis. Just after 2009 when the production of the country diminished by 5%, Germany realized an astonishing score the next year, in 2010, with a GDP growth of 3,6%. Since then, the GDP of Germany keeps on growing year after year (Eurojob Consulting, 2019). This is only one example of the economic power of Germany and its strong industrial strategies. In 2016, the country was declared world champion in terms of exports, before China. Whereas in 1990, Germany was considered as the sick country of Europe, it is now seen as the driving force of Europe. The country is actually near full-employment. Their unemployment percentage is one of the lowest in Europe and their growth rate is on average 2% every year. The German Government also has a budgetary surplus.

When we analyze the German model, it is important to understand the Mittelstand, a group of small and medium enterprises that are very competitive, innovative. The Mittelstand forms the spine of Germany's economy. This structure regroups more than one million companies and represents a total employment of 20 million people throughout the country. It is also accountable for 40% of the country's gross investments and is responsible for 30% of

Germany's exports. Germany has a lot of startups and a lot of them are unknown to the public. However, these German startups often occupy the leader's position on specialized industrial sectors. We call these startups the hidden champions (Eurojob Consulting, 2019). Some examples of German hidden champions: Delo, specialized in sophisticated adhesives for electronical applications; Tetra, specialized in food for ornamental fishes; Belfor, specialized in the removal of water, fire and storm damages (Hermann, 2014).

These startups are really specialized in the niche market and they export a big part of their production. The successful startups become leaders in niche segments because the products offered by these companies are really innovative and are generally oriented towards the high-end market. They have to face low competition, which allows them to directly aim for the leader's position on their market. Furthermore, their small size, their long term vision and their important investment in terms of research and development allows these startups to keep their innovative faculties, their independency and of course, their learning capacities.

The startups from the Mittelstand often promote a domestic form of capitalism where social relationships are pacific and research and development factors lead to collaboration and not to competition between the different companies of a same industry. This mindset also helps the fidelity of employees as they benefit from advantageous social conditions. Another important mindset from these startups is that the benefits that come from their current activities are directly reinvested in their companies and structures, which leads to the fact that these companies possess real important self-financing capacities.

- **Why we chose France**

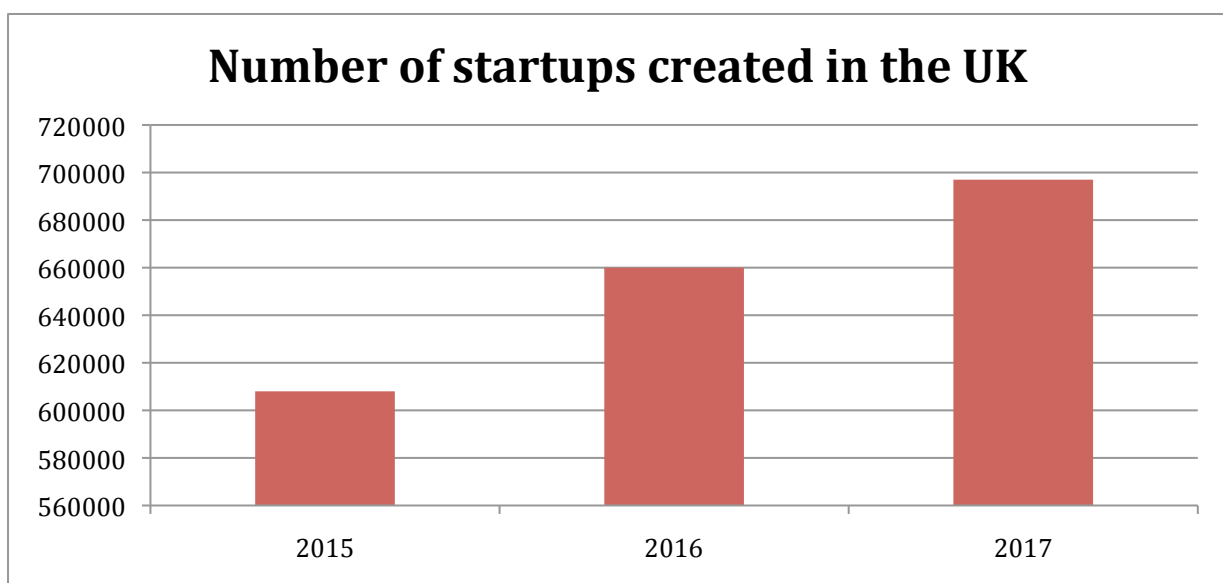
France is also well known for its startups' dynamic. Indeed, in 2016 and in 2017, France was elected the first foreign delegation at the CES, in Las Vegas. The CES is the "Consumer Electronics Show" which is the most important exhibition for technological and electrical innovation for private consumers. Regarding this exhibition, the French startups have impressed in terms of innovation and creativity. Not only did they impress the exhibition but the French entrepreneurship has also known international success these last couple of years. Furthermore, in 2017, a survey conducted by Idinvest, which is a European company specialized in the investment capital and the risk capital and has the mission to finance small and medium-sized companies in Europe, indicated that 34% of the French people are

demonstrating envy and determination to launch their own company. Another survey conducted by Insee, which is the French national institute for statistical and economic studies, showed that 241.000 companies out of 590.000 are under the self-employed model which proves that France has an important dynamic in terms of young companies, innovation and entrepreneurship.

- **Why we chose the UK**

Thanks to the English language, to the fact that the UK has a lot of colonies and to the fact that people from around the world came to the UK, and especially England, (and still do), the country has the opportunity to diversify its business, its innovation, its creative thinking. So when we choose the UK for our analysis of startups we already start with an important background that is still in favor of the UK today.

Considering business as a whole, England comes as a reference just behind the US. Even with the Brexit uncertainties regarding startups, the UK is still the place to be. Indeed, in 2015, more than 600.000 startups were created and this number kept on raising afterwards like in 2016 where the number of startups reached 660.000 and went even higher in 2017, to reach the 697.000 startups created (Bounds, 2017). Although the UK startup dynamic slowed a little in 2018, it was shown that there never had been as much new technological firms created.



London keeps on playing the main attractive area for startups, business and entrepreneurs. In fact, London represents around 40% of the total tech startups created in the UK (Prosser, 2018).

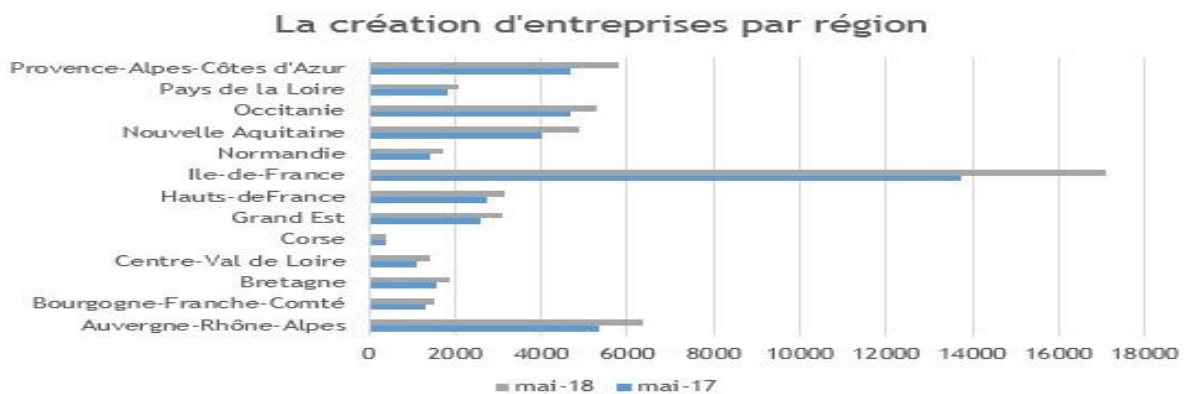
Regarding universities and the British educational system, the UK has always shown a great talent in developing economic and business managers. There is also the fact that even if the Brexit was voted two years ago, it didn't take place yet and the UK managed to keep its attractiveness for foreign entrepreneurs. The English Government encouraged and supported a lot of initiatives after the world's financial crisis in early 2000. These new measures for business creation are still applicable today. Furthermore, the advantageous conditions to create a business in England plays a key role in this dynamic. Companies have easier access to fundings and are facing low interest rates on their loans, for example.

Finally, the reason the UK is still important to study when we talk about business is that London keeps its number one position in Europe as the best technological city. More than 5 billion of euros are invested every year in technological companies in London, much more than in other European countries.

- **Analysis of the dynamics of startups within these European countries:**

- **France:**

Since 2017, France is currently experiencing an important and continual growth in the number of startups that are created on its territory, as you can see on the following graphic.



Source: (Maud, 2018)

The average percentage of this growth, between 2017 and 2018, is around 17 % across the country and this growth average has never been as high since 2010. In terms of numbers, 691.300 companies have been created in 2018, which is almost 100.000 more than in 2017. Some regions are more fertile than others but it isn't the most important, for now.

- **Funding capacity**

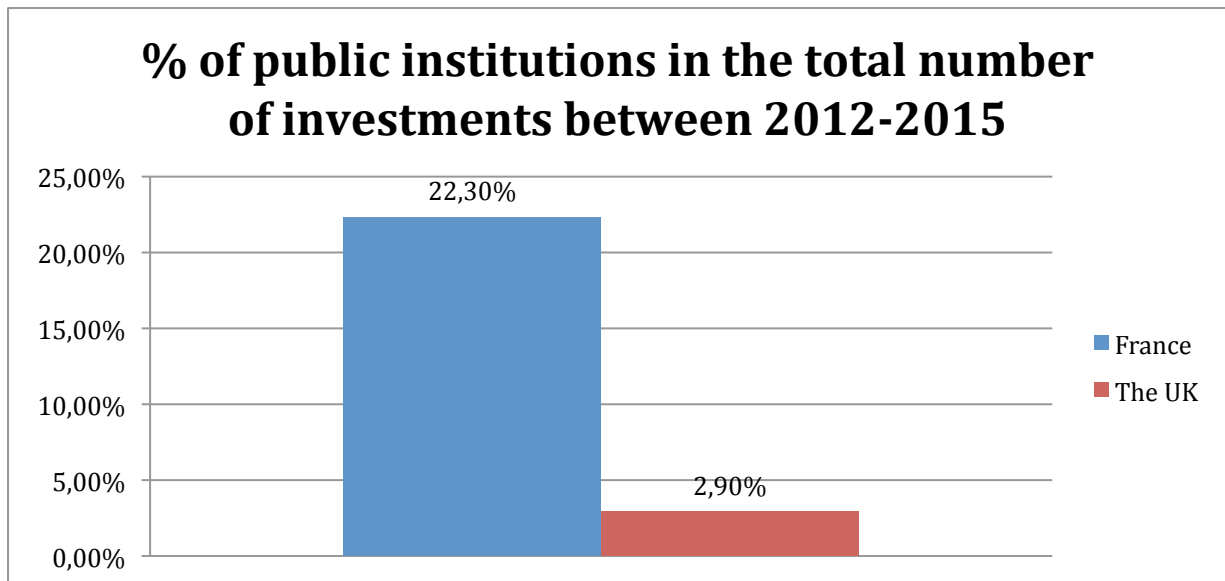
The new French ecosystem (French Tech), which is a governmental initiative enhancing French cities that have established a beneficial ecosystem for startups, didn't only just address the incentives to encourage and conceive an advantageous environment for startups but it also took into account the financial issues. In order to finance a new activity, a new idea of business, important funds are needed and startups will need external resources. These external resources have to come from individual or corporate investors but not from banks and will only be available for projects that have high growth potential on a period of time between three to five years. These fundings will depend on the needs of the company and its development stage. Following these features, the fundings will be considered either to be a « initiation funding », to satisfy the first needs of the startup, or either a « development funding », to finance the accelerators and to encourage the development of the startup. The goal of these fundings is to make investors participate in the capital of the company thanks to shares. These investors are actually called « business angels » due to the fact that their investments are encouraging and allowing the development of newly born companies. Of course, their objectives (and that is the reason they only commit to projects with high potential and fast growth) are to realize a return on investment on the short-term. In France, these business angels, generally, devote between 50 000 and 500 000 €. Only few of them invest more than 500 000 € due to the high level of risks. There are actually 12.000 business angels in France that have regrouped under the France Angels since 2001.

The study conducted by Capgemini consulting and eCap Partner, which are consulting companies within the field of new technologies and digital transformation, on the fundings of startups, shows that the global number of investors, in startups, has actually decreased since 2017 while the total amount of money invested in these startups has, on the other hand, increased in a significant way. (Appendix 1.b)

Startups in France are in a state of important growth thanks to a dynamic environment. Not only is the number of startups growing but also the total number of financements. To illustrate this growth, it is possible to say that the French startups are increasing their turnover. For example, in 2017, the French tech startups have increased their global turnover by 26% compared to the year 2016. In terms of euros, this increase represents 5,8 billion € (Ernst&Young, 2018). This increase also triggered greater ambitions for the digital French startups. Indeed, these companies have the aspiration to succeed internationally. Still in 2017, most of the total turnover of the french startups was realized across the French frontiers, 56% to be precise. This new ambition also has an impact on the investors as around 40% of the french startups received venture capitals from foreigners.

Some elements can constitute a real obstacle for young companies. In case of a failure, the entrepreneur, or the startup creator, will not have the possibility to benefit from a future credit for a future project. This lack of credit or banking advantages granted to startups goes along with the lack of foreign investors really engaged in french startups. A french startup is thus quickly confronted to a lack of fundings and a lack of capital to exploit its activities. And even if we talked about the fact that France is currently trying to instaure an ideal ecosystem for startups by simplifying administrative procedures, there are still too many intermediaries that enter these procedures, which tends to lengthen unnecessarily these processes and sometimes discourages the startup's initiatives.

A study conducted by the "Conseil d'Analyse Economique", which is an institute regrouping French economic experts in charge of advising the french Prime Minister, and the Nobel prize of economy, Jean Tirole, have pointed out the need for France to reinforce their capital risk system. Indeed, even if the total number of investments in French startups is quite impressive, the venture capitals are pretty poor when it comes to investment in French startups. BPIFrance, which represent the public funds of France, plays a major role to finance French startups. The part of public institutions in the total number of investments in French startups has risen to 22.3% between 2012 and 2015. The UK public institutions, in comparison, have only accounted for 2.9% of the total investment in British startups for the same period.



The role played by BPIFrance is of course a strength for French startups but is also considered as a weakness. The French ecosystem relies on this institution and its selection of startups that deserve to receive sources of financement. BPIFrance should develop and integrate independent governance within its structures that will help it establish clear direction regarding its political and industrial decisions when it comes to start-up investment. This study also showed that there was a poor participation of universities in this ecosystem yet universities are the basis of entrepreneurs and idea developments. The French universities only raise 0.8% of the fundraising in France while they represent 5.1% of the fundraising in the UK. These numbers demonstrate that there is a lack of scientific participation in the development of startups in France.

Besides this analysis on the public action in France, the study also demonstrated that the business angels in France were not adapted to the new startup dynamics. Their economical weight only represented 1.7 per 1000 of the French GDP, 2 per 1000 in Germany and 4.4 per 1000 in the UK for the year 2013. Unfortunately, we don't have the informations from 2014 to 2018 because this study was conducted by the European Commission in order to improve policy-making regarding startups and their access to financial support. The French business angels have not the capacity to support French startups in their international conquest. Regarding the investments realized by business angels, it is important to know that the average investment of a French business angel is twice as less than English business angels

and 2.5 as less as German business angels. This criterion plays an important role in the attractiveness for startups (Clapaud, 2016).

- **Administrative aspects**

43% of the startups that have been created within the first months of 2018 come from projects initiated by micro-entrepreneurs and micro-financing. In terms of numbers, these micro-entrepreneurs are in charge of 127 319 new startups and this, only in the first five months of 2018 (Maud, 2018). A micro-entrepreneur is a statute that allows the person that acquires this statute, to launch his business activity with few financial and administrative constraints meaning that the start-up will run on a simplified basis with low administrative costs.

Let's review the French ecosystem. The French government and French companies have acknowledged that it is important to create an ecosystem that will encourage innovation, and the development of this innovation, through startups while recognizing their fragility. In 2013, the French Ministry of Economy had launched a huge program that aimed at the growth and the spreading of digital startups. This initiative was called "the French Tech" (Appendix 1.c) and was structured around 3 important axes (Combes, 2018):

- The first axe: To certify the cities that hold an international digital ecosystem and that have the project to keep this ecosystem growing. The goal behind this first axe is to acknowledge that prolific startups won't grow randomly anywhere and so the government wishes to encourage dynamic urban centers with a label.
- The second axe: To allow the acceleration and development of startups. This second axe is all about how it is possible to help startups boost their evolution and reinforce their foundations. The investment fund that is currently managed by Bpifrance, which is the public bank of investment that accompanies companies through their processes, spends about 200 million of euros in order to support the development of accelerators of private startups. An accelerator is a public or private structure that aims at helping startups in their early stages in order to attain the expected profitability while developing the main business.
- The third axe: To develop the attractiveness of France and its ecosystems. 15 millions of euros have been invested during 2013 in order to increase the

international visibility of the initiative. This investment has allowed the French Tech to register an increase in the total fundraisings. In 2018, the French Tech managed to raise 1,9 billion € within one semester, which is 61% more than in 2017. In 2019, at the end of April, the French Tech managed to raise 1,43 billion €. Paris is also an important winner of this new system and this new attractiveness. Paris is the third most important city in Europe regarding startups and in 2019, for the first time, entered the top 10 of the worldwide most important cities regarding startups. In addition, foreign investments in French startups are considerably increasing. In 2016, there was at least 130 million € invested while in 2017, this number raised to 200 million € (Ricard, 2018).

There are several factors that make France attract a lot of entrepreneurs and startups. Like in the UK, certain legal forms are simplified in France in order to facilitate the creation of startups. The average number of steps that the creation process includes in the G20 is 7.6 steps before the complete creation while in France this average number is 7. More precisely, these steps are the following ones: choice of the legal form of the company, the reports on the status of the company, the capital formation, the regroupment of the administrative documents, the filling of the M0/P0 documents which are treating the immatriculation of the company as well as the start of the company's activities and finally the deposit of all these documents to the french administratif center of societies. The creation of the company can be acted in 7 days while the average in the G20 is 22 days. Of course this number is still higher than the UK where you can create a company in 24 hours or less.

- **Tax system**

France is in fact one of the most favorable European countries regarding digital startups. The legal framework offers an ideal ecosystem and allows these startups to use equity tools such as BSPCE, which offers a lighter tax system. BSPCE stands for “Bons de souscription de parts de créateur d’entreprise” and that is a system that allows a startup to issue, freely or not, share warrants to managers or employees in order to strengthen their loyalty to the company (Avocats, n.d.). These share warrants are issued under the same tax regime than stock options and free shares. By appealing to this strategy, French startups have an important advantage when it comes to increasing their employees' loyalty. 63% of French startups interviewed

have recognized that they are currently using this system accordingly to the EY France survey.

It may be interesting to mention one of the most important support system when it comes to taxes. A lot of young companies appeal either to the « Crédit d'Impôt » or to the « Crédit d'Innovation » or benefit from the status of “Young Innovative Company”. The « Crédit d'Impôt » is actually a tax credit that offers a reduction on taxes thanks to a refund system. It has been instated, in France, in order to increase investments within young companies. The « Crédit d'Innovation » is one of the most demanded support by French startups since it really helps these innovative startups to go from researches to the development of their concepts (Ernst&Young, 2018). The « Crédit d'Innovation » is a tax measure especially established for startups in the sense that these companies can benefit from a 20% reduction on taxes in order to finance the necessary materials for their production and activity.

France still has important issues to resolve in order to become a real competition for the UK or the USA. Indeed, for startups and for companies in general, France has one of the most important tax system, even though the country puts different advantages in place for startups as seen earlier in this report. The income tax rate in France is about 38% which makes it not only one of the most important income tax in Europe but also across the world. In comparison, the average income tax rate in Europe is 23% and 22% worldwide. This also has an important impact on France's industries and the development of French startups as big companies are trying to avoid this income tax. These companies either move to another country or are trying to figure out different systems to diminish this tax rate but in both cases it has an important impact on French startups since companies don't have incentives to integrate, invest or create partnerships with these startups. In addition to this, even if the startup doesn't manage to realize an important turnover or worse, has negative financial scores, the company will still face really important social charges. France is known to be the country where social charges are the highest with 41%.

The FranceAngels, which is the French association acting as global business angels for French startups, recently evoked the fact that the French tax system wasn't appropriate for the creators of startups and business angels. In the UK, the EIS system, the Enterprise Investment Scheme, which is a regroupment of tax advantages offered by the british government, allows to deduct 50% of the tax on revenues with a ceiling fixed at 200 000 £. If we take a closer

look at the French tax system, in comparison to the English system, the deduction that the French system allows is only around 18% of the amounts invested in French innovation. There is a ceiling of 10.000 €, In France, only because investments in startups are considered as a tax niche.

There are incentives that are put in place in order to encourage founders of startups to reinvest the benefits of their activities in the ecosystem that helped them grow. An issue may occur, regarding this tax system, because of the fact that it is obligatory to integrate the French startups' actions to the taxable basis, which may discourage risky investments. However, it is quite normal, in France, to see a startup founder, make a big value added by selling his start-up and acting as a business angel or creating a new start-up, afterwards. This phenomenon is called "Serial Entrepreneur" and is well present in France as well as in the USA. These incentives were created by the "entrepreneur-investor" initiative, which was launched by the French Minister of economy and initiated by Emmanuel Macron.

For the French business angels association, the "entrepreneur-investor" initiative is a step forward in the right direction. Indeed, there is a real issue in France and the impacts on young entrepreneurs are quite consequent for the country. In general, the French tax system is a real obstacle for young entrepreneurs since they can reach a tax rate of 80% in case of success of their activities. This is part of the reason explaining why French entrepreneurs and enterprise creators are always looking at London as a possibility to establish headquarters.

▪ **Ecosystem – Infrastructure**

The fact that France is one of the most important European countries plays in its favor and directly attracts the eye of investors from all over the world. Communication systems, infrastructures like offices but also transports are esteemed to be at a high quality level. Indeed, not only does France have important national transport networks but the country also possesses important international airports. Furthermore, the French educational system also has a good worldwide reputation, which produces important talents and skilled employees. The French universities, and specialized schools, are always well ranked in international rankings like, for example, in the ranking of the European business schools realized by the Financial Times in 2018 (Appendix 1.d).

A study conducted by the Knight Frank Cabinet, which is a British company specialized in the European real estate market, demonstrated that it was cheaper to establish offices, for startups, in Paris than in London. This study was conducted over the specific areas within cities where startups can develop and benefit from advantages such as networking and infrastructures. In Paris, this specific area is called the financial city. The annual cost for an office in the financial city for a startup operating with 4 employees is around 51.500 euros. In London for the same startup, this amount reaches 60.000 euros per year. This amount can be diminished by the c-working spaces offered in Paris. Indeed, if French startups decide to go for co-working spaces and thus not rent an office, these costs can lower by 63% annually in regards to office rents. Paris is actually the first European city regarding the low cost of co-working spaces (Marion, 2016).

In addition, Paris recently inaugurated the opening of Station F, which is the world's biggest startup campus. Station F is located in an ancient monument (Halle Freyssinet) and the different workstations are divided on a surface area of 34.000 m². There are exactly 3.000 workstations and different backing assistance program are present in order to help the development of startups. There is also a makerspace, which is a space where knowledge, materials, equipment and ideas are shared between startups. It is a space where technological solutions are shared under prototypes. Station F can welcome 1.000 startups daily. There are two specific programs for entrepreneurs. :

- There is the Founders Program which is a simply a monthly subscription with access to all the offers of Station F.
- There is the Fighters Program, which is a free subscription, for a year, for all the entrepreneurs who didn't receive the proper education and backgrounds to develop their ideas.

- **Employment**

There are, in France, different elements that enter into consideration when developing a start-up. The recruitment process of young talents is a big obstacle. In a survey, realized by EY France, 61 % of the startups that were interviewed responded that the recruitment in France is the greatest obstacle for their development. Regarding French employees having access to an important education system and generally being highly qualified in their domain of expertise, there is, obviously, a competition on the salaries but not only. Indeed, France is known for the

fact that an employer has great responsibilities and has the obligation to contribute a lot to social charges. In order to counter this obstacle, French startups have found an alternative, which is to appeal to freelancers. A freelancer is an independent worker under the statut of self-employed and has different missions for different companies meaning that he doesn't, usually, have a long-term attachment to a company. In 2017, 2 startups out of 3 employed freelancers. This has the advantage to diminish the costs for the company.

Regarding this French ecosystem we can also highlight the wage portage system that is very present. The wage portage system consists in the fact that the portage entreprise plays the intermediary between an entrepreneur or an individual and the companies for which the individual will offer services, products or other missions. The portage company pays a salary to this individual and receives a certain commission from the companies that are employing him. This is a safe system for an entrepreneur or a startup creator to try out his activities without taking important risks and by receiving a decent salary and the correct materials, if needed, to develop his products. This way, the entrepreneur can see the reaction of potential new customers.

France also is a country where employees are very protected and generally, any decision made by the company regarding employments is in the favor of employees. The employer is indeed accountable for a lot of elements such as health care, employment conditions, enterprise committees, layoff indemnities, fixed salaries and enough hours of work offered to employees in addition to these social charges. This means that if the employer makes an error in terms of recruitment, he will definitely deal with great loses, financially but also in terms of productivity. The employer doesn't have as much protections as employees and this is a real constraint.

Regarding work factors, there are also some limits that have to be taken into account. France is one of the countries where the working hours per day are the highest worldwide when wages are still very low in comparison to other European countries. Indeed, for the same working hours, a French employee will generally gain less than in another European country, which explains that, the working hours in France are usually higher for a given salary. There are only three countries where labor costs more than in France: Norway, Denmark and Belgium (Valic, 2017b).

- **Networking**

There are also several initiatives created to help young companies and young entrepreneurs in developing their activities. Different supports for startups exist: advice, technical support, practical support, and financial support. Regarding the financial support, it may be interesting to mention ACCRE, which is an initiative that offers to the selected startups the exemption of social charges during the first 12 months of existence. ARCE is another initiative that is advantageous for former unemployed people that are launching their own company. Indeed, this initiative allows these persons to receive 45% of the remaining unemployment allowances which is beneficial since creators of startups are generally not paid during the first steps of the company's life-cycle. Of course, these are not the only support programs that startups can benefit from, there are a lot of other helps like the microcredit organizations that offer financing, expertise, advice and personalized services. All of these helps are not coming from the private sector; there are of course governmental and public supports like zero-interest rate loans granted to specific and selected startups (Michelier, 2018).

France tries to settle and introduce a beneficial ecosystem for startups. Indeed, the country counts more than 1000 different enterprise incubators which are of real help in the first years of the company's life by providing backing assistance and expertise on how to get the correct financing supports and how to develop the correct structures.

There are a lot of different backing and support groups in France that offer different possibilities for startups to be successful in the long run by offering resources all along the growth period as well as expertise and legal help. There is the « Pôle Emploi » which is the employment center of France. This entity is in charge of finding employment for their clients but also has the duty to accompany enterprise creators in their approach. Next to this entity there are also more than 20 chambers of commerce and great networking systems regarding entrepreneurship. In addition, France possesses a lot of support bodies in terms of coaching and accommodations. These support bodies offer expertise and advice regarding the internal structures needed to grow as well as infrastructures like offices at a low renting cost in order to allow startups to develop with less constraints.

- **Market needs – Innovation – Sectors**

Even if we are trying to highlight the important success factors, it is worth reviewing the sectors that have the highest scores in terms of business creation. Interestingly, it is the transport sector that represents 60% of all the startups in France, followed by the human services that represents 29% (Maud, 2018).

We will now talk about unicorn startups. A unicorn startup is a privately held startup that is valued at more than 1 billion of dollars. It is a very small group of startups that manage to reach this valorization. There are actually 355 startups that are considered as such across the world, in 2019. This ranking is realized by CB Insights, which is a company analyzing data on financing and angel investments, The Wall Street Journal and Fortune. There are only 4 French unicorns: 1.OVH, specialized in cloud computing and big data, 2.Doctolib, specialized in online medical appointments, 3.Deezer, specialized in musical stream and 4.Blablacar, specialized in carpooling. These French startups are ranked from the 151th place to the 231st place. The total value of these 4 startups is 4,37 billion dollars. The USA has the most unicorns in this ranking with 165 startups represented and the total value of these startups is 500 billion dollars. France is the 11th country the most represented (Midena, 2019).

- **Summary:**

One major element that plays in favor of startups and of company creators is the fact that it is possible to launch a business as an auto-entrepreneur at first before choosing a legal statute for the startup. The person that launches a business under this form has to pay less in terms of accountability, accommodations, taxes, which is not negligible. This form of startup allows an entrepreneur to launch his business without taking too many risks and offers him also an important adjustment time for his product or his service. The « entrepreneur-investor » initiative plays in favor of a less binding system and constitutes a real success factor for young entrepreneurs in France.

Regarding the financial system put in place in order to help French startups to develop, it is easily observed that with the implementation of the French Tech ecosystem, there is a real increase in terms of total amount of money invested in startups. There is an important financial support provided by public funds more than in other European countries and it is an

advantage but could also be an inconvenience. These public funds represent a certain financial power but it also means that the French system is heavily dependent on their selection processes. The French ecosystem is too dependent on these public institutions and doesn't offer adapted conditions for the development of capital risk investments.

France, and especially Paris, offers however important and advantageous infrastructures, transport facilities and communication systems. In addition, France possesses a great educational system with worldwide renowned universities and an important fish tank of talented and skilled employees. The networking environment is also to be taken into account as there are several initiatives launched by the French government, individual entrepreneurs or corporations in order to provide the correct advice and support system for French startups. More than 1000 incubators are present on the French territory and offer backing assistance and development insights.

France is a major political and economical player across the world. However, there is a clear lack of foreign investment and this can be explained by the fact that the tax system in France is not as advantageous as it is in other European countries. This tax system doesn't only impact foreign investment but also local investment and startup creation in general. In addition, there is a lack of corporation investments within France because there are no incentives to let big companies integrate or develop smaller structures. A lot of young entrepreneurs look at other countries in order to develop their activities.

France needs more than an advantageous tax system to develop its startups; it also needs simplified and faster administrative procedures. Specific supports are in place for French startups like BPIFrance or the French Tech initiative and there are many more to take into account. But the problem with these multiple supports occurs when a French entrepreneur, or startup, starts its activities and has troubles finding these supports. It is a real puzzle.

Finally, there is a big issue concerning employment and recrutement. Indeed, France is a country that is well known for high social charges and protection of employees. Employers have a lot of obligations regarding employment but there is a lack of protection for these employers. Any error of recrutement and the employer will have to face financial and productive losses.

- **Germany:**

London, Paris and Berlin are the most important cities in terms of startups in Europe. The ranking used to classify these cities and the dynamic of enterprise creation is based on the fundings their startups receive and the number of enterprises that have seen the day in one-year period time. London is the first European city in terms of startups booming, Berlin the second city and finally Paris is the third most important European city.

What makes Berlin so attractive, in addition to the low costs of infrastructures, is the dynamic ecosystem and the cultural tradition of creativity in the city. Germany took the lead as an economic motor for Europe during the recent financial crisis. Germany also managed to divide its unemployment rate by two thanks to the emergence of all these new businesses and went for the first time in many years, under the 5%. The public finances are also under control. Germany's exports keep on increasing year after year. All these different elements allowed Germany to have an extraordinary economic health. A lot of foreign countries talk about a miracle realized by Germany but the politics played a great role in this financial health.

- **Funding capacity**

In Berlin, the fundings raised by startups reached the amount of 2.97 billion € in 2017. London, for comparison, received around 4.88 billion €. These numbers come directly from a survey realized by Ernst & Young Germany, in 2017. Germany has three important cities in the top 10 European startup dynamics ranking. Behind Berlin, in 2017, is the city of Munich at the fifth position with a financement of 278 million € and still at the 10th position, is the city of Hamburg with a financing of 233 million €. In 2018, these numbers are still at a high level. Indeed, Berlin raised 2,611 billion € for its startups while Munich and Hamburg had raised respectively raised 619 and 548 millions € (Appendix 1.e).

The investors are really interested in the development of these startups. There has been an important increase in the number of transactions as well as in the total fundings raised by German startups. The total of the venture capital invested has increased by 39% between 2016 and 2017. The startup industry never received as much financing from investors, which means that the financial support for these startups, has moved to another level.

There is also a new tendency that can be observed. More and more big German companies are looking at startups as a way of being in the starting blocks when it comes to new technologies and innovation. Not only are they interested in new technologies but they are also interested in new processes, new business models. This makes the venture capital investments increase as the different interests and investments become a form of competition (deutschland.de, 2017).

Public funds are of a great help in Germany at the very start of the business. Indeed, there is a lot of financing of startups at the launch of their activities, during the first 12 months of their existence. However, afterwards, it becomes harder and harder to receive financial support from private investors or institutional investors. This lack of financial support has been solved, in a way, recently by the crowdfunding system. Crowdfunding consists in receiving little amounts of money from a great amount of people that want to finance the beginning of a new business, a new activity. Crowdfunding is thus the use of money financed by individuals after the presentation of the future activity or business. Everyone can participate in this crowdfunding.

Still following the report realized by the Ernst & Young Group in 2019 and called « Start-up Barometer Deutschland », German startups have managed to increase their fundings thanks to the fact that most of the investors start investing more than 100 million € per startup which is new since 2017. Not only did the number of big investments increase in the past years but also did the total volume of investors. This means that the development of the German ecosystem for startups is growing with success and is establishing the basis for the future conquests of its companies on their respective markets.

In 2017, 207 berlin startups managed to raise up to 3 billion € during the 233 financement tours. A financement tour is a system that consists in regrouping and organizing around a same project, a same startup, the different sources of financement that are necessary to allow the startup to go through its creation and production processes within the right conditions. Berlin, compared to the rest of German cities, manages to keep a positive growth in the number of startups that are seeing the day. Indeed, other German cities, like Munich, are seeing their startups dynamic rate experimenting a small decrease in the last couple of years. The five most important tours of financement, in 2017, in Germany were all registered in Berlin. In terms of volume, Berlin still has the lead in Germany with 69% of all investments,

which is just impressive (Appendix 1.f). In 2016, this percentage was about 48% of the total investments raised.

Experts in economics have also observed that it never has been as easy to create a company and to become an entrepreneur in Germany since 1950. The High-Tech Gründerfonds, which is a venture capital fund that regroups public and private investors, invests up to 500 000 € per year in young and promising enterprises. The funds, provided by the High-Tech Gründerfonds, are mostly public as 87% of the total financing comes from public sectors. The High-Tech Gründerfonds possesses 573.5 million € for the financement of startups. Their participation in the development of young companies can be evaluated as follows: around 250 technological enterprises and around 4000 employments created thanks to their participation. The High-Tech Gründerfonds has specific criterias to select the companies in which it will invest. The company selected has to be young and by young we mean that the company has to be legally registered since 12 months or less. The company has to employ less than 50 employees, at the moment of the investment. The start-up will also have to be established in Germany and have to be in the preparation phase before the launching of a new prototype or a new product on the market. This new prototype, product or service will have to be considered as a real value added for potential customers. Financial services are not the only offers that the HTGF makes to startups. Indeed, the HTGF also offers coaching programs to help startups recruit the right talents, establish the correct structures, support their activities or even locate the right buildings for their development (Versieux, 2013).

At the Global Startup Ecosystem Ranking 2015, Berlin is ranked in front of Paris but is way behind London. Even if there are a lot of positive elements regarding the German startups, only 2% of German people that have 35 years or less have created a company when this number is around 9% in the USA (Startup Genome, 2019). In addition, a recent study conducted by the Bitkom Research Office, which is an office in charge of publishing important and reliable data on European markets for information and communication technology, interviewed 143 entrepreneurs and enterprise creators who confirmed that there were some difficulties of financement in Germany. 34% of these startup creators also confirmed that they don't actually have the funds to finance their activities for the 24 months to come. Of course, the first tours of financement go through without any complication. The problem occurs when there is a need for more than 2 million € of total financement. This

need for bigger investment occurs when the startup is in its growth phase and the lack of investors slows down the growth.

This situation explains why a lot of German startups, that have the potential to be successful in the long run, finish by turning to the American investors and the American market which is much more advantageous for them in terms of financial support. In 2015, American investors led 24 funding rounds. In 2016 and in 2017, this number increased respectively to 35 and 38 funding rounds (Wan, 2018). It can also be observed that there is an increasing interest of Chinese investors in German startups. Indeed, in 2017, Chinese investors provided 100 million euros to German startups and in 2018, 300 million €.

- **Administrative aspects**

Germany is well known for its simplified administrative procedures in order to set up legally a startup. The legal form that is usually chosen in order to start activities is the GmbH, which is the equivalent to the limited liability company. The GmbH company has to raise 25.000 € as capital in order to start its activities. The registration of this company can be done alongside the city hall, which will inform, afterwards, the institutions involved. The registration can also be done at the Gewerbeamt, which is the formalities center for enterprises. The registration of the startup is always done at a local level and the local institution then takes the lead to inform national and European institutions. However, compared to other European cities like London or even the USA with the Silicon Valley, the time it takes for these administrative procedures, in Germany, is comprised between 6 weeks and 6 months. It can thus be very long.

Regarding the administrative costs it is very cheap in Germany. Indeed, an entrepreneur will have to pay 800 € in order to finance the costs of formation. These costs of formation take into account the cost inscription to the trade register, the publication fees and the notary fees. There is no need for a lawyer in Germany to realize these administrative procedures (Moriou, 2003).

- **Tax system**

The biggest rearrangements made by the German government concern directly the labour market. Germany put in place concrete incentives and solutions in order to decrease unemployment. They set up a beneficial system for companies wherein the assistance system depends on taxpayers (not on companies anymore) and where the recruitment procedures are simplified with fewer constraints. The taxing system has also been reviewed. For employees, the income tax has been reduced. For companies, constraints on the corporate taxes have been simplified as the taxes only concern, from now on, half of the shares and the added value realized by the company (Fontan, 2014).

However, a lot of other reforms will have to take place in a short future. There are a lot of important issues that will have an impact and this dynamic such as the aging of the population (Farine, 2017).

- **Ecosystem – Infrastructure**

Berlin has an ecosystem that is perfectly adapted to the German market but also to international markets. Berlin's standing, at a global level, is considerably the same as Paris and just slightly smaller than London's standing and visibility. By « standing », we mean all features concerning the reputation and the visibility of the city at a global level.

Berlin is a city that offers a lot of coworking spaces, meeting rooms, public spaces rented by enterprises to support young entrepreneurs and startups, which are developing their activities. There are also big companies such as Google that are operating in Berlin in order to promote collaboration and support to startups. Google allows all innovative startups working in the technological sector to use, free of charge, their smartphones, computers or tablets to try out new applications before launching it on the market. Uber and Deutsche Bank are other big companies operating in Berlin to support startups.

The Factory Berlin isn't the only reason that made Berlin a privileged area to start a business. It has been 10 years now that Berlin, as a whole, keeps on developing its attractiveness for entrepreneurs and new businesses. In order to be attractive for startups, the city offers low cost accommodations as well as offices at low prices, which is a huge advantage for any startup compared to other important European cities. Not only are these infrastructures at low

costs but they are also of a certain quality, which is not negligible. There is a lot of diversity as well in the profiles operating in Berlin and a great level of tolerance. There are important companies that have seen the day in Berlin such as Zalando or even SoundCloud.

- **Employment**

The German labor law is very protective towards employees. Indeed, it isn't as easy as it is in the US or in the UK to lay off employees following a mistake made within the recruitment. The employer will have to expose all the reasons of the lay off before the lay off can actually be registered. However, the protective laws against lay offs really enter into action when the company employs at least 10 workers. This characteristic of the German labor law was allowed by the reform « Hartz ». Before this reform, the protective law against lay offs was in application when companies were operating with 5 employees.

Furthermore, the social charges that an employer has to pay are way lower in Germany than in France. In Germany, these social charges reach 19,5% whereas in France, these social charges are at least 10% higher (Maigron, 2015).

- **Networking**

There are open programs for universities, startups and companies from the Mittelstand. These common projects receive different sources of financing and can raise millions of euros. These projects will help for the development and for all elements that concern research and development departments but in the end, the survival of the company will depend on the way the consumers will react (Gorreri, 2013).

The HTGF isn't the only institution working to develop startups that present high success potential. Indeed, big companies in Germany such as BMW believe deeply that innovation is the engine of society and that it is essential to respond to the new issues at stake. BMW is involved in the technical university of Munich by supporting their incubator. Big companies place their interest in startups because they believe in their innovative capacities and the possibility to benefit from these technological leaps. The problem that might occur is that startups have troubles seeing the real benefit for them participating into this kind of partnership. In addition, some German economic experts actually fear a high-tech bubble. A

high tech bubble refers to an insecure market regarding high tech and the stocks exchanged on this market. Prices rise quickly, big transactions are realized but these practices might collapse, at any moment. There is a risk of overheating, a risk that too much startups will see the day and will face a great risk of failure. Of course, not all startups can reach their objectives but the risk of the bubble is that there will be an important increase of these failures and the economic cost will be very important for Germany (Versieux, 2013).

Startups have found in Berlin a real home where they can develop themselves and grow amongst other startups and successful companies. The Berlin model is a real inspiration for other important countries such as France. The French president Emmanuel Macron even came to visit the Factory Berlin in order to develop the French Tech. The Factory Berlin is the office park that regroups most of the Berlin startups and big corporations. It is acting as an incubator, free of charge, for these startups in order to accelerate their growth and their survival procedures. The Factory Berlin is the biggest office park regarding the regroupement of innovators in Europe. Factory Berlin emerged in 2014 to respond to innovation and technology creation around the world. The Factory Berlin is born from the idea that Europe cannot miss the numeric era if it doesn't want to fall into poverty and decrease its political influence (Farine, 2017).

- **Market needs – Innovation – Sectors**

The German startups generally have the ambition to engage, quickly and qualitatively, while keeping the enterprise culture they are trying to insure. In order to survive during the first 5 years of the company, a startup has to face a lot of uncertainties and changes. The environment in which they evolve is never stable and in addition, the products or services they propose to the market also have a short life cycle. A startup needs a lot of feedback at the beginning to improve their offer and adapt their product to the needs of the market. Of course, they will always have opportunities to grow and to find their rhythm of production but these startups, compared to companies that are already settled, are facing much more risks of failure and bankruptcy.

The startups established in Berlin are emerging as leaders in German industries such as electronics, financial technologies, health care, medias and even mobility and transports.

In Germany, most of the investors finance startups active in the electronics industry. These business angels invested 1.8 billion € in this sector while the investment in 2016, for the same sector, was only 438 million €. There was also an increase registered in the technological sector. The tours of financment increased, as did the total fundings. The technological sector managed to raise 541 million € in 2017 compared to 415 million € in 2016. Another considerable raise of fundings is in the health care sector which raised 522 million € in 2017 compared to the 291 million € in 2016. These positive numbers are demonstrating the tendency these last years in terms of needs from private consumers but also industries and businesses. There are of course negative numbers to be explained. Even if there is an important civil tendency towards climate change, eco-responsibilities and stronger ecological policies, there is a decrease in terms of investments in the energy sector. The tours of financment of this sector have increased from 10 to 15 tours but the total fundings has decreased from 231 million € to 86 million € (Derzelle, 2017). The reason comes from the fact that Germany has invested largely in this domain since 2000 and the country is actually facing an impressive surproduction of energy and is trying to slow down the production so the government grants less subventions and investment plans for this sector (Fraunhofer Institute, 2017).

Regarding unicorns, startups, valued over 1 billion \$, Germany is actually the second most important European country, just behind the UK. Indeed, Germany has, in 2019, 9 unicorns in the global ranking. These 9 unicorns have a total value of 19,6 billion \$ and within these German unicorns you can find companies like HelloFresh, Otto Bock Healthcare or even Auto 1 Group. The complete list of unicorns can be found on the official site of CB Insights.

- **Summary:**

Germany has experienced an important growth within the startup ecosystem. The numbers of transactions and the amount of fundraisings have increased tremendously these last years. Indeed, there is an increase in the amount of money invested in German startups with an average of 100 million € per startup. The venture capitals account for 40% of this increase within one year. However, German startups face difficulties, after 12 months of existence due to a lack of financing since public funds diminish considerably their financement. A lot of German startups thus turn to American investors and the americain market as well as to

Chinese investors. To counter this effect, Germany is currently in the process of implementing important crowdfunding systems.

Berlin, and the Mittelstand, is now considered as an Eldorado for young entrepreneurs and for startup creations. Germany managed to put in place the necessary conditions and systems to get to these results. In Berlin, the housing market is particularly interesting for these young enterprises; it is between 10 and 16 euros per m². The German capital also offers an advantageous networking system. A lot of technical schools as well as specialized universities have taken roots in Berlin. Regarding politics, the German authorities have decided to support innovation since the financial crisis. By supporting innovation, the German government encouraged the creation of little structures and allowed these structures to get their financing from venture capitals.

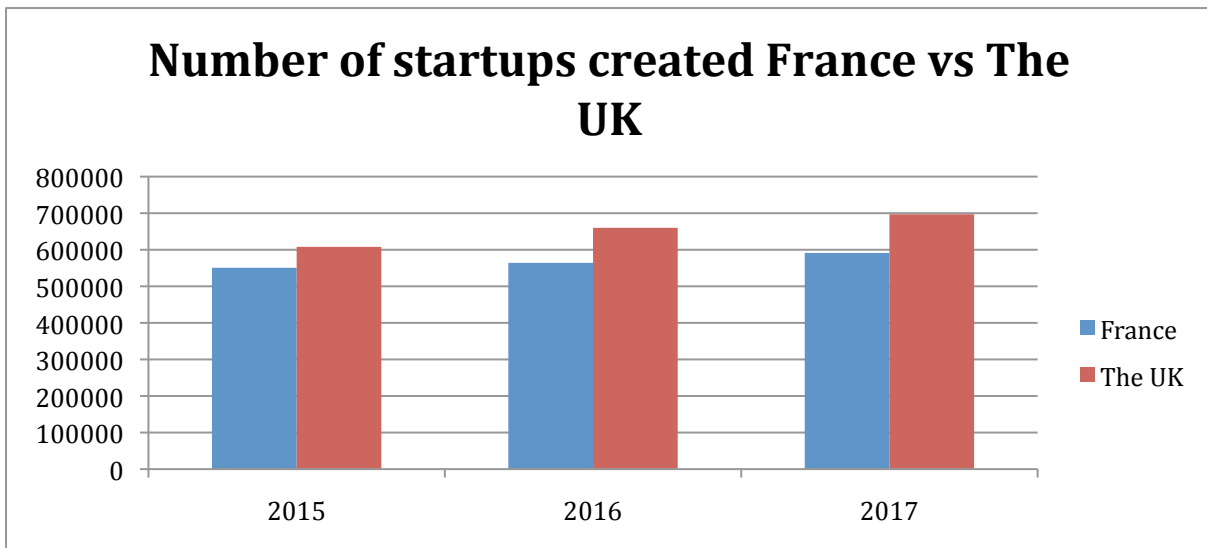
Regarding the tax system, Germany instaurated a simplified basis for startups. Constraints on income taxes and on corporate taxes have been diminished. The tax basis has also been reviewed in order to promote value added realized on investments. The German tax system has introduced changes in order to promote business as the assistance system depends now on taxpayers. Recruitment procedures and employment conditions are now more favorable for startups. Indeed, there are less administrative constraints when recruiting and any error in terms of recruitment can be corrected with a flexible lay-off law.

To summarize, more and more German startups are actually receiving venture capital and even some of them are entering into the stock exchange market in order to raise even more growth capital necessary for their expansion. There is also a growing interest of big companies in these startups that is translated by a willingness to collaborate. It can take two different forms, either the big company collaborates and gives access to its own resources or the big company buys the innovative startup and integrates it to its internal structures in order to establish the technological advancement inside of these structures.

- **The UK:**

In Europe, the UK and especially London are considered as the first European country when it comes to startup dynamics. In every single ranking regarding financial support, investments, politics and startup successes, London comes in the first position within Europe. British startups have received in 2018 more than 7 billion €.

In the UK, political authorities have understood the importance of startups regarding employment. A recent study conducted by the European Startup Monitor, in 2018, confirmed that an average of 70 new employments are created per start-up annually. This average is based on high growth startups. The issue here is that it creates a certain competition between European countries, as they also want to attract foreign startups on their territories. And with the uncertainty surrounding the Brexit, European governments, especially France and Germany, are looking at London as a possible mean for their personal growth in terms of startups. The Berlin senator, Cornelia Yzer, which is in charge of economic and research development, has recently sent an open letter to British startups in order to invite them in Berlin with a list of important contacts to help them relocate (Levy Gale, 2016). This desire to relocate British startups in EU countries comes from the fact that British startups have impressive statistics and are a real example for any European startup. Indeed, the study conducted by “Start Up Britain”, which is a British campaign promoting entrepreneurship across the country and based on the knowledge of leading businesspeople, stated that in 2014, there were 581.173 startups created in the UK, 608.110 in 2015 and kept on increasing year after year. In 2016, there were 657.790 startups created across the UK and in 2017, 697.000 startups. These numbers are huge and are only taking into account startup creation. In France, for comparison, there were 550.700 companies created in 2015 and from these 550.700 there were 223.400 companies that were under the legal form of auto-entrepreneurs. Still in France, 564.217 startups have been created in 2016 and 591.300 in 2017.



- **Funding capacity**

Even if the Brexit has important consequences on the British economy, and on the different industries that are operating in the UK, the country manages to keep its leading position on the European market as the first startup ecosystem. Following the study conducted by London & Partners, which is an agency that is in charge of the economic development in London, the English capital manages to perceive 72% of the total investments in the UK. In fact, London received 5,017 billion €, in 2018, Berlin received 2,611 billion € and Paris received 2,488 billion € (Appendix 1.e). In 2017, the total investment perceived by British startups was even higher than the total investments in 2018 but this can be explained by 2 major fundraisings. Indeed, Improbable, which is a startup specialized in the virtual reality tech, raised 456 million € and Deliveroo which raised 436 million €, and was valued over 2 billion € just in 2017 (Grondin, 2017). (Appendix 1.g)

In London, special incentives are put in place in order to increase investments, especially risky investments. These incentives are usually in the form of tax exemptions and come directly from the initiative that is called “Seed Enterprise Investment Scheme”. It allows an investor to receive 50% of his total investment back. In addition, if your investment turns out to be positive, you don’t have to pay taxes on the value added that you managed to realize. If this investment turns out to be negative, the investor can still receive back its loss occasioned by the taxes on revenues.

The capital risk system is way more effective in the UK than in other European countries. First of all, there are more business angels operating in the UK than in France and start up funds allowing entrepreneurs to finance their activities. In England, investors are really interested in high-tech companies and this is confirmed by the fact that the UK is the second most important country in terms of technological innovation behind the USA.

Even though the administrative procedures are easy, fast and effective quite quickly, the bank sector, on the other side, is more demanding for startups in terms of business plan. This fact pushes startups to realize precise and more accurate business plans which in the end turns into an advantage for them. The problem occurs when startups are in search of credits and financial support and that their business plan is far from being precise. Furthermore, if the company is new on the market and doesn't have solid basis like financial guarantees, support from big companies or even if the enterprise creator is at his first try than the banking sector will more likely refuse any loans. In the UK and in general, there is a need for 3 years of experience before receiving important financial loans. These difficulties are explained clearly by the British banking sector that has an important transparency policy (Valic, 2017a).

- **Administrative aspects**

In addition to the collaboration between European cities, startups based in London are also part of the "Mayor's International Business Program", which was launched in 2016 by the London authorities, in order to help young startups based in London to develop themselves and to expand at international levels. This initiative was created to develop the international growth ambitions and projects of British startups. The program offers to the selected startups a specific scheme, mentoring from big corporations as well as different expert advice following the field of expertise, and access to important resources. The program has specific selection criterias. This initiative targets companies with an important growth potential, already achieving revenues and operating in one of these 4 major sectors: technology, life sciences, urban and creative industries (London et al., 2019). The program already supported more than 400 British startups and mostly private partners finance this support. About 50 startups join this program every three months. Furthermore, startups that have the opportunity to be selected, within this program, have also access to advice and directions from big cabinets, like KPMG, as well as advices from successful entrepreneurs that have already

managed to succeed in their own field of action. There are also different business and commercial missions that are organized and planned by the program across different European cities.

Another important success factor in the UK is the rapidity of action. Startups don't have the same resources as big companies, they are limited in terms of materials, capital, and employees so they don't have a lot of time to put in place the right tools, structures to succeed. Startups can « die » quickly, it needs a lot of capital that is quickly invested. Failures and bankruptcies can be detected in less than 3 months. If to reach financial support, a start-up has to wait between 6 and 8 weeks to get a response, a big part of its capital might already have gone and the decisions taken might be irreversible. The selection criteria must be clear for every start-up and support groups must be able to give a decision immediately, which is the case in the UK.

Every entrepreneur, startup creator or investor agrees on saying that the processes are simplified at the very maximum in order to establish legally a company in the UK. The administrative authorities in the UK have established a simplified system for administrative procedures, taxes and legal procedures. To create a company in the UK, you have to evoke the company's status and you have to register to the CompaniesHouse, which is the UK's registrar of companies. It is a very simple process. You can register your company online with a simplified form to fill in. Your company is completely registered under 24 hours if you have chosen the Private Limited Company status. Regarding the VAT declarations, the processes have also been simplified in the UK. There are only 7 lines to fill in every 3 months to be in order legally. For the pay slips, it is still very advantageous because they only have 10 lines to complete. Regarding social charges, everything is prewritten, even the letter, only some limited modifications have to be added. And finally, regarding these procedures, a company has the possibility to change its legal status at any moment and quite quickly (Gradt, 2019).

The English administration is also really available for all startups located in the UK. For any questions regarding the procedures of settlement, the labor law or social charges, you can call the British administrations at any moment and they will either redirect you to the appropriate association or the appropriate person to resolve your issue.

- **Tax system**

In the UK, the tax system has different criteria for companies and the tax rate that they will have to face. Indeed, the first level is 0% if the benefits of the company are less than 15.583€. The second tax rate possible is between 0 and 19% for companies that have benefits between 15.584€ and 77.919€. The third level of tax rate is between 19 and 30% for companies that realized benefits compromised between 77.920€ and 233.754€ and above that, the company has to face a tax rate of 30%. This tax system is way more interesting than the 33% tax rate imposed in France. Regardless of the social costs, England is also more attractive for startups than other European countries. The social costs for an employer in England are fixed at 12% while in France; for example, these social costs are fixed at 45% for an employer. Furthermore, the salary charges in England are fixed at 10%.

- **Ecosystem – Infrastructure**

There are a lot of European startups that have the desire to install offices in London; it is an international and English environment, which is a must when developing activities at an international level. There is also another important criteria. There are already a lot of nationalities that are present in the British capital.

The UK offers, also, an important transport network and of quality, which is not negligible, not only inside of the island but also through Europe. England has the biggest European airport, which is Heathrow, and London is considered as one of the biggest underground network of the world. When establishing a company in the UK, you are sure to have access to every single point in the world quite easily.

Although the companies installed in the British capital have a lot of advantages, they still have to put in place, for themselves, the right tools to recruit the right people at the right moment. Regarding this last point, the Brexit will even increase this challenge. In the worst case of Brexit, which is a hard Brexit without any agreements on the free trade, the total cost for EU companies and UK companies could reach 65 billion €. Companies within the EU will have to pay 35 billion €, annually, regarding tarriff barriers and on the other hand, British companies will have to pay 30 billion € annually to export products within EU limits (Challenges.fr, 2018).

A challenging problem compared to other European countries is that London is very expensive and it is a must to have important sources of financement as well as existing capital. Indeed, the location of offices is really expensive, the different expertises have an important cost, the necessary materials for the activity are also expensive and to retain talents, you have to be able to set up important wages and development paths for your employees (Moynot, 2018).

Finally, the UK's educational system is well known around the world for its high quality and the production of its qualified talents. The education system is at a high level and is recognized internationally. Europe's number one business school is the London Business School.

- **Employment**

In the UK, the labor law is more flexible than in other European countries. It is easy to find a job, once your papers are in order, because there is an important turnover ecosystem. It is also easier for employers to lay off employees. The conditions are less binding for company directors than in France and this is valid for the whole first year of activity. These company directors can, for example, lay off employees without any justification and with only one-week notice. This condition demonstrates a certain flexibility in the UK labor law since it allows startups to recruit rapidly talents or even seniors without having to wait months before the procedures are done like in other European countries. However, if the employee has more than one year of experience in the company, the rules to lay off become more strict. Every lay-off will have to be explained and if the justification is considered as abusive than the company will have to pay a lot to the ex employee. The notice, on the other hand, is between several weeks and three months.

The UK has one of the lowest unemployment rates of Europe: around 5%. It means that it can be difficult to find good people with the appropriate profile when starting a company (Valic, 2017a). It is important to engage the right person with the correct skills and this means that in the UK, these skilled talents have their own expectations that the company will have to full-fill. In addition to these demands, the wages are greater in the UK than in other European countries, which is sometimes complicated for a young enterprise with limited financial

resources. Not only are the wages quite high in the UK but also are the extra legal benefits, generally. These extra legal benefits include company cars, bonuses, health insurance...

So regarding the advantages in terms of social charges, entrepreneurs that have decided to establish their company on British soil can lose these benefits by having to deal with high expectations when recruiting and the extra legal benefits. As said, recruiting the right person at the right moment and within the right conditions is really difficult for a British company. These startups usually turn to recruitment firms. By turning to recruitment firms, startups have to pay these firms every month with little chance of finding the perfect applicant within the first month.

- **Networking**

In order to keep its importance, its lead and its attractiveness, London wishes to install a cooperation system with the other big European capitals like Berlin and Paris. These two capitals have registered an important growth in startup creation, investments and successes. France, for example, managed to cross the cap of the billion of pounds invested in young companies and this, only in 2018. The UK proudly promotes the fact that there is a necessity to create a strong European ecosystem for innovation to be able to compete with China or the USA. In order to counter the impacts of Brexit if they prove to be negative, London & Partners, the agency in charge of the economic development of London, recently opened an office in Paris to prove that London stays a European city after all (Counis, 2019).

In terms of collaboration with other important European cities, there are already partnerships that exist. Indeed, in 2017, London and Paris managed to put in place cooperation. 13 British startups crossed the channel, with the mayor of London, Sadiq Khan, to meet big French corporations. This partnership was possible thanks to London & Partners as well as Paris & Co. Paris & Co is an agency in charge of the economic development and innovation of Paris. This agency promotes the innovative ecosystem in Paris thanks to the presence of incubators and by supporting 400 startups per year, experimentation of the innovative solutions and the organization of national and international events where French startups can meet different enterprises, cultures and ways of thinking. Startups that have crossed the channel have taken this opportunity to analyze the different supports that French startups receive in Paris. Their

goal is to stay in London but develop activities in Paris as well. By developing activities we mean that the British startups can either implement an office in Paris or develop a commercial staff in Paris. When London startups want to expand their activities in Paris, Paris & Co will help them by providing co-working offices at low cost and offering low cost tickets for the Eurostar. French startups have also the occasion to cross the channel and to learn the important elements that will help them develop and grow in London. This exchange program won't just happen between London and Paris, the goal is to extend this partnership to cities like Berlin, Lisbonne, Amsterdam and even San Diego in the USA.

Some of the big French companies that are providing expertise to French and British startups are: BNP Paribas, L'Oréal, LVMH, Sodexo, JCDecaux, SFR, BIC (COUNIS, 2017).

- **Market needs – Innovation – Sectors**

There is still a great uncertainty that surrounds the Brexit and how this will affect the business sectors in the UK but for now it is impossible to evaluate the impact. The mindset is globally positive regarding the London ecosystem. There are obviously sectors that are more promising than others like the artificial intelligence sector. It is important to mention that the venture capital investments have registered an increase of 47 %, 736 million £. The venture capitals have also exploded in the blockchain sector, which raised 200 million £ in 2018 compared to 19 million £ in 2017, and the Big Data sector increased its total venture capital investments as well with a 551.8 million £ fundraising. 17 British startups managed to enter into the stock exchange market in 2018 for a total of 1.3 billion £ (Counis, 2019).

Regarding unicorns, the UK is actually the first European country in the global ranking. The UK registered 18 unicorns in 2019. The total value of these 18 unicorns reaches 44,17 billion \$. Among these 18 unicorns, it is possible to find companies like Transferwise, Deliveroo, Global Switch (which is a global data center and valued at 11 billion \$) or even Brewdog, which is a British brewery.

- **Summary:**

There is an attractive tax system in the UK either for companies, their founders or their investors. There are also simplified administrative formalities, labor laws that are much more flexible for employees and employers than in other European countries. And finally, another important element of success for British startups is that there is a greater number of investors that have the possibilities and the financial capacities to support these startups through all their growth processes and procedures.

There is also a strong entrepreneurial mindset in the UK. Being successful and using the capitalist system is encouraged and is even praised. There is a great work flexibility, bureaucracy is less important as well and the total tax rate on companies only accounts for 60% of what is done in France. England has always been considered as a dynamic business country with a strong economy and this pushes foreign investors, foreign entrepreneurs to take their chance and establish their activities in the UK. These entrepreneurs can either decide to export or to sell their products on the British territory. It doesn't matter because in both cases they can realize an important turnover with low fixed costs. These important turnovers can also be explained by the fact that the payroll is less important in the first years of activities of a British startup. Furthermore, creating an enterprise in the UK allows the startup to be directly in contact with Anglo-Saxon methods, which are of great help for globalization, and to target the American market later on. Indeed, you directly learn how to treat business affairs in English and you directly have the good knowledge regarding practical tools and means.

The UK is considered as a tax system paradise as well as an administrative paradise for young entrepreneurs and enterprise creators. Every year, the UK manages to attract startups from all over the world, which makes it a real diverse ecosystem where different cultures interact with each other. The UK is one of the European countries where the tax system is the most favorable for young entrepreneurs and startups. The tax rate for the company's revenues is way lower than in France. The rapidity of action of the administrative and legal procedures can be realized in less than 24 hours. This is a real advantage compared to the average time for completion of European countries, which is 22 days to allow the startup to be fully, and legally created.

In London, it is very simple for a young entrepreneur or startup to start its activities because with the London Tech City, a regroupment of high tech companies located in the same area of London, startups have the possibility to find easily all the help they need and they know easily to whom they can turn in order to receive support or advice. There is also a clear description of the financial support and the rules that are in vigor for start-up selection following the initiative, association or organization you turn to.

London is an international, creative and dynamic environment for any kind of enterprise. The international environment in London allows companies to grow faster and to have access to a greater and a more rapid investment system. In addition, the cooperation system launched with other big European cities allows London to stay at the top of innovation and startups' ecosystem.

However the costs and the expenses of the needed resources can be an inconvenience. Compared to the rest of Europe, England is really expensive. Recruiting the right person at the right moment is tough. In order to attract and to retain talents, startups have to offer high salaries and important extra legal benefits. In addition, the materials, expertise and infrastructures represent a high cost for startups and companies in general. The daily life in the UK is generally more expensive than in other European countries.

Regarding the banking system and the loans granted, there are also higher and more binding constraints in the UK. First of all, the banking sector is more demanding in terms of business plans and conditions to fulfill before receiving loans. There is also a certain need of experience from the applicant. In addition, if the applicant has already faced a failure, the banking sector will most likely close its doors.

Finally, there is a great uncertainty that surrounds the Brexit and this might be the greatest challenge that the UK will have to face regarding startups. Other European countries have the ambition to benefit from the Brexit by attracting British startups within their territories. Cooperation between European countries can rapidly become a competition.

- **Belgium:**

We will now analyze the dynamics of startups in Belgium and how the country tries to catch up its delay compared to the other European countries observed. We will analyze how Belgium creates the incentives and offers different support systems in order to help startups grow into a sustainable and profitable company.

We can clearly see that there is a new dynamic regarding startups in Belgium. Indeed, the three regions Flanders, Wallonia and Brussels have all increased their percentage of startups created in 2018 compared to 2017. Flanders has seen an increase of 5.7%, Wallonia 7% and Brussels 4.3%.

However, this growth is only on a national level. Belgian startups have a poor internationalization plan. A recent study conducted by Deloitte and the Vlerick Business School, called the Rising Star Monitor, demonstrated that only 50% of Belgian startups have plans and ambitions to spread their activities to other European territories or internationally. This percentage also means that 50% of the remaining startups will only concentrate their activities in Belgium. The issue here is that the Belgium market, in general, is too small to offer sustainable possibilities to all these startups. There will undeniably be a greater number of losses and failures than on a bigger market if this trend continues. The Rising Star Monitor conducted by Deloitte and Vlerick is a study realized on 152 Belgian startups that have a high growth potential. 300 creators founded these 152 startups. This study was conducted under the initiative Entrepreneurship 2.0 of the Vlerick Business School in collaboration with Deloitte Belgium in order to identify why Belgian startups are facing issues and failures (Rising Star Monitor, 2018).

Another important detail is the fact that the creators of these companies generally have a poor stakeholders and stockholders plan. The Rising Star Monitor study showed that a lot of these creators leave their enterprise within the first 3 years of development. External investors are thus discouraged to invest in these innovative companies and financial backing systems are very demanding regarding business plans, financial potential and existing resources before offering loans (Rising Star Monitor, 2018).

- **Funding capacity**

The fundraising in Belgium is constantly improving with at least 350 million € raised, every year, since 2016. In addition, the average annual investment in a Belgian startup has also increased to reach 4 million € in 2018. In 2017, this number was only around 1.8 million €. This increase, although it is encouraging, also represents a small part of the total financial raisings observed in other European countries such as France, Germany or the UK. Once the start-up managed to turn into a scale-up, there is a real slow-down regarding the future growth. Only few of the Belgian scale-ups managed to proceed to an « exit ». An « exit » is a process which allows an investor to realize gains on his investment. In the last past years only 20 Belgian startups managed to realize an « exit ». This number is way too low to hope to compete with the most important countries in terms of startups. Regarding investors, there is also an issue as in Belgium; the top 10 investors in startups are all from Belgium (pmv, lrm, fortino, Capricorn). This is an issue because Belgian startups have troubles reaching foreign investors and our national investors don't have the same means as other European funds. In fact, only 3 Belgian investment funds are part of the top 100 of European investors (Colwell, 2018).

- **Administrative aspects**

The administrative procedures for creating a startup in Belgium and in Brussels, especially, are very complex and time demanding. This is an inconvenience that a lot Belgian starters want to simplify like it is the case for Odoo, which is a Belgian startup specialized in management softwares. A startup will have to go through different administrative steps before being legally in order to start its activities. The startup creators will have to choose the legal statut of the startup. In general, in Belgium, a startup either is a anonymous company or a private limited liability company. This allows the creators to diminish their financial risks. After the legal statut, the creators will have to register for a VAT number and appeal to a notary, which represents an important cost (an average of 900 € per notary for startups). Afterwards, the startup creators will have to register to the entreprises counter in order to allow the inscription in the Crossroads Bank for Entreprises. There are in addition some important costs to take into account. Indeed, when creating a private limited liability company, there is a certain amount of money to bring as capital including 6.200 € that will have to be deposited on a frozen account (FOXYpreneur, 2017).

Not only does creating a startup on Belgium soil cost a certain amount of money but it also takes a certain amount of time. Just to receive the legal statut for a company takes 2 days, at least. Belgium has the need to clear and simplify these administrative procedures in order to stimulate the startup creations.

- **Tax system**

There has been an important initiative, in Belgium, in order to encourage investments in startups and support their development. The Tax Shelter for startups is a fiscal stimulus for investors and for Belgian startups. There are various conditions to respect and to fulfill in order to access to this advantage. The startups can benefit from tax reductions between 30% and 45%, which is clearly not negligible. For the investors, there is also a great opportunity and advantage with the Tax Shelter. Investors get a tax deduction of 45% of the amount they invested in startups and 25% of the amount invested in scaleups(Debaty, 2019).

Regarding the conditions linked to this Tax Shelter, we can separate them in two categories. First of all, the conditions regarding the investors: the investments have to be realized by an individual (not a company) and must be realized by an external individual (not running the startup) and there has to be a legal proof of this financial investment.

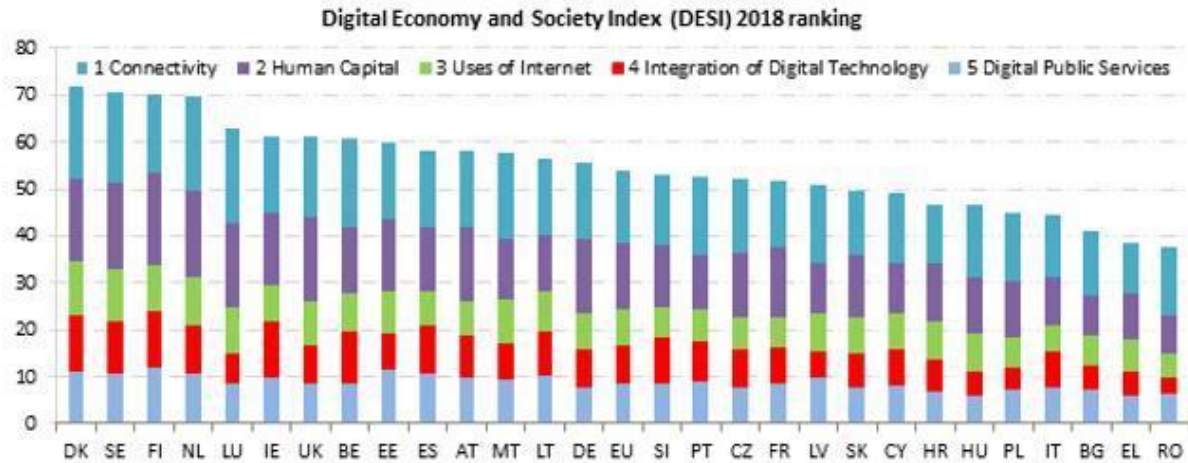
Regarding the conditions for the startups, there is either a 45% tax reduction for microentreprises or a reduction of 30% for small entreprises. A microentreprise is a company operating with less than 10 employees, realizing a turnover lower than 700.000 € excluding VAT and the total of its balance sheet has to be less than 350.000 €. A small company benefiting from a 30 % tax reduction is a company operating with less than 50 employees, realizing a turnover of 7.300.000 € excluding VAT and the total of its balance sheet has to be less than 3.650.000 €. For these two types of companies, one other important condition to respect in order to benefit from the Tax Shelter is that these companies have to be created less than 4 years ago (FiscalTeam, 2017). For information the corporate tax in Belgium is one of the highest tax rate in Europe. Indeed, the corporate tax rate of Belgium is 33,99% of a company's turnover.

- **Ecosystem – Infrastructure**

Brussels is of course the central point when it comes to startup creation with 30% of the total number of startups. There is an important difference between Flanders and Wallonia even though Wallonia has known the most important increase of startup creation in 2018, a 7% increase. However, Flanders still accounts for more than 50% of the total number of startups on Belgian territory whereas Wallonia the remaining 20%. In general, Belgium has created more startups than the European average but the issue is that this dynamic has still poor impacts on the economy and on the employments. The return on investment for Belgian startups on the GDP is poor and this is a major issue that will have to be resolved in the future. To be more precise, Flanders generates around 58% of the Belgian GDP, Brussels around 18% and Wallonia around 24% (Charlot, 2016).

There are three regions in Belgium and they have different support systems. We will, first of all, analyze the country as a whole before analyzing Flanders, Wallonia and Brussels separately.

There are at least 70 startup accelerators and incubators across Belgium as well as different mentoring programs. These programs are different from one region to another. However, there is a common initiative that was launched under the name « Digital Belgium ». Digital Belgium was launched in 2015 in order to establish a clear digital action plan for Belgium and this for the long term. This action plan is based on 5 pillars: a digital economy; digital infrastructures such as artificial intelligence and storage spaces; digital employment and trainings; digital security; digital public authorities (SPF Economie, 2018). An evaluation will be realized in 2020 where the goal is to place Belgium in the top 3 of the Digital Economy and Society Index (DESI). This index is a European index ranking European countries regarding digital companies. The DESI is based on 6 key factors: Connectivity; Human capital and digital skills (all the trainings and education established in the country to embrace the digital industry); Use of internet services, offered in the country, by citizens; Integration of new technologies by companies; Digital public services offered by the government and by the legal authorities; Research and development within the country and focused on new technological solutions and digital innovations.



Source: (European Commission, 2018a)

As we can see on the graph, Belgium, in 2018, is ranked at the 8th position. Denmark, Sweden and Finland constitute the top 3 of this ranking (European Commission, 2018a). We can also see on this graph that Belgium has to improve in 2 specific fields: connectivity and the use of Internet services by citizens. This ranking still offers a great visibility to Belgium and proves that the direction taken by Belgian authorities and the Belgian digital companies is starting to pay off. In addition, the Digital Belgium project has the ambition to create more than 1 thousand startups in this industry and 50.000 new jobs.

Belgium, in general, is a country with a lot of opportunities for young companies and it is a center of exports. As part of the founders of the European Union, Belgium is a country that is very open to Europe with no constraints on imports and exports from or to countries within the EU. Geographically, Belgium is almost at the center of the European continent. This means that when expanding activities globally, Belgium represents an easy access to various important countries such as France, the UK, Germany and also represents a facility when developing overseas like in the US. Even though the country is well known for its high costs of social charges, company taxes and insurance contributions, the talents present on the Belgian market are known to be of high quality. The universities have a good standing throughout the world. There are 7 Belgian universities that are ranked in the top 500 best universities, in 2018. This ranking is an absolute reference when it comes to universities and is called the ShanghaiRanking Academic Ranking of World Universities. The best university in Belgium is the Gent University, which is ranked at the 61st place.

Brussels is at the center of the startup projects in Belgium even though it accounts for less startup creations than Flanders. Brussels is the capital for Belgium but also for the European Union. This means that the visibility a company has by locating headquarters in Brussels is very high. Brussels is also the first national objective a Belgian startup has when developing its activities. A lot of these startups, even if they see the day in Wallonia or Flanders, have the objective to set up offices in Brussels like it is the case for Mint, specialized in hospital cameras or Sortlist (which is now a scale-up), a relationship platform between companies and marketing agencies.

In addition to this, Brussels recently witnessed the opening of the French Tech Brussels, which is a subsidiary to the French Tech. The goal of this initiative is to develop Belgian startups internationally by creating important synergies between France and Belgium. This initiative will allow to increase French and Belgian market shares on the innovative markets (French Tech Brussels, 2016). There are actually 3 important missions that the French Tech wants to develop:

- Create a Tech community between France and Belgium and develop important synergies between these 2 ecosystems.
- Create an important networking system between these 2 ecosystems and encourage the relations between startups, big companies, investors and incubators.
- Create common events where startups have the possibilities to find interesting partnerships for their development.

Finally, regarding the business angels present in Brussels, there is also an important positive dynamic. Indeed, the main business angels in Brussels operate generally under the name « Be Angels ». This initiative counts today more than 240 members. Be Angels already managed to finance more than 250 startups and to raise more than 40 million € in terms of investments. Be Angels has the objective to create strong relationships between entrepreneurs and business angels but also supports and guides the startups through all the financial processes. Finally, Be Angels helps startups to write the necessary documents for their financial development (Finance.brussels, 2016). Be Angels is also active in Wallonia but mostly in Brussels.

Regarding Flanders, these last years, it is possible to observe an encouraging dynamism regarding startups. There are a lot more business angels in Flanders than in Wallonia. These

business angels generally regroup under the name Business Angels Netwerk Vlaanderen and they are actually more than 225. The Business Angels Netwerk Vlaanderen also has the support of the government. These business angels also invest, on average, 600.000 € within a startup (De Tijd, 2018). The system implemented in Flanders in order to help startups develop and catch sources of financment is based on the fact that successful Flemish entrepreneurs invest their gains back into new innovative projects. A part of all the money they gained thanks to their activities is reinjected in the Flanders ecosytem either directly in startups or indirectly through an investment fund like Volta Ventures (Charlot, 2016).

Regarding Wallonia, even though the increase of startup creation is constantly improving and is the highest progression on the Belgian territory, there are still some issues to solve. First of all, there isn't an important structure like the Be Angels or like the Business Angels Netwerk Vlaanderen, which regroups the business angels willing to invest in their regions. It is thus very difficult, to begin with, for a startup in Wallonia to find clearly and easily the adequate financial support it needs. In Wallonia, it is especially local public services that help the development and represents the backing assistance for startups. However, there are still interesting programs in order to accelerate and to act as incubators for startups such as the Startup Camp initiative launched by Creative Wallonia. Startup Camp initiative is a supporting program that acts as an accelerator within different provinces of Wallonia. The goal is to bring to startups a personal coaching program during several weeks. Creative Wallonia, on the other hand, is a governemental act launched in order to encourage innovation. Creative Wallonia is based on 3 different tools such as the Startup Camp, the coworking spaces created and the Tendancies Observatory, which collects data on the growth of innovative sectors throughout the world. These tools are accompanied by creative encouragements and financial support provided by Creative Wallonia.

- **Employment**

Startups don't only represent the future of the country's economy as well as an important source of GDP but they also represent the future of employment. The country's economic development depends on its capacity to create scale-ups, which are young companies that hire around 50 employees each and manage to raise millions of euros. However, Belgium has difficulties when it comes to scale-ups and is currently behind a lot of European countries such as France, the UK, Germany or even Estonia. A study conducted by Sirris, which is a

center of research on the European landscape for scale-ups, has demonstrated that Belgium needs to catch up on different aspects. These different aspects include access to capital, labor laws, tax incentives, social charges or even infrastructures. In terms of employment creation, Belgium is way behind and is actually in the last places in the European ranking. This is a problem in general for the country's employment rate (Appendix 1.h). Belgium has an average of 27 employments created per startup and scale-up. On the other hand, there is an important dynamism when it comes to start-up creation with a peak reached in 2018 with 100.113 new companies created (Marion, 2016).

The recruitment of the adequate profiles is real hard for every Belgian startup because there is usually shortage of available talents on the market. F.A.B.I., which is the Belgian association of civil and agricultural engineers has related the fact that only a little amount of engineers were looking for a job after their studies. Less than 20% of industrial engineers were available on the market, at the start 2017 after graduating in 2016 (De Harlez, 2017). In addition to this shortage, there is the fact that startups don't offer the same salaries. The salaries an individual of 25 years can perceive within a Belgian startup can be 75% less than an employee of 55 years working in a stable company and for the same job. Of course these salaries change regarding the sector of activity and the size of the company (Bombaerts, 2019). Startups have less financial means than medium or big size companies. However, a recent study conducted by Deloitte Belgium demonstrated that young talents were looking for responsibilities, trust and flexibility when applying in a company. Startups offer more flexible jobs than other companies on the Belgian soil.

Regarding the taxes on employment and the recruiting advantages for startups in Belgium, two specific initiatives can be highlighted. First of all, for the very first recruitment, there is a complete exemption of the employer's contributions. This initiative is only applicable for the first employee. Secondly, there is a 80% reduction on the withholding tax for the technical staff performing in the research and development department of the startup. This technical staff has the condition to be in possession of, at least, a bachelor's degree in order for the 80% reduction to be available (Demeyer, 2018).

- **Networking**

There are important movements when it comes to Belgian Tech and company creations as Belgium has great ambitions for 2019. In order to create and reinforce this ambitious ecosystem, two important entities, in Belgium, have decided to merge into an even bigger support structure for young Belgian companies. The merger of Startups.be and Scale-ups.eu has initiated this positive evolution. Startups.be is an organization that is in charge of representing Belgian startups and in charge of organizing important networking events at an international level. The organization actually represents 95% of the total number of Belgian startups. On the other hand, Scale-ups.eu is an organization that takes care of Belgian and European scale-ups. This organization has the mission to find the correct financing systems for scale-ups and organizes international events such as the SuperNova festival in Antwerpen.

The SuperNova festival is an event that promotes technological solutions, game-changing products and businesses of tomorrow. During this event, 50 of the most important startups in Europe, which counts 15 Belgian startups, reunited and presented their projects to an important European committee. This event doesn't only regroup the most important European scale-ups but also offers a great visibility since around 200 venture capitalists are taking part in the event as well as sustainable and big technological companies. In addition, the event offers direction to these scale-ups by identifying the technologies that they will need in order to develop even further their current activities. The goal pursued by Scaleups.eu and the structure that it already managed to set in place is a real model for startups and part of the reason that allowed this merger. The world of startups and enterprise creations is evolving fast, is more and more ambitious and experiments more and more competition. Belgian startups need expertise, like scale-ups, and need to evolve in an ecosystem that is strong, resourceful and that has the means to help a national and international development.

These two institutions will become one legal entity but will still have the possibility to operate under their respective names. This merger will obviously create important synergies in the Belgian Tech ecosystem and will offer more resources and more expertise to young companies. In fact, the legal entity has already great ambitions for 2019 such as the organization of "The Big Squeeze" which is an event that promotes Belgian startups and will now include scale-ups. A third event will see the day after the SuperNova, the Big Squeeze,

and will concentrate on promoting the positive synergies created by the collaboration of startups, scale-ups and corporations. This event will be created under the name of “The Big Score” and will reunite 300 startups and scale-ups that demonstrate great potential in their field of action in addition to 50 of the most important Belgian companies within different sectors.

The goal is of course to increase effectiveness and to create a stronger ecosystem that is more unified. Belgium has the ambition and the need in terms of economy, employment and influence, to become an important technological area of Europe. To satisfy this ambition, Belgium, with this merger, is emphasizing networking, a more knowledgeable ecosystem and unification. In addition, more and more international missions will see the day and a greater database will be created that won't only concern Belgian startups or scale-ups but will collect also European startups data (Godard, 2018).

Riaktr, which is a Belgian start-up specialized in the telecom analysis in developing countries and which has one of the greatest growth potential, was elected “Entreprise prometteuse de l'année” (Promising company of the year) in 2016, in Belgium and is one of the only Belgian startups that managed to attain a consequent size (EY Belgium, 2016). Indeed, this company registered an important fast growth and is currently employing more than 100 people. The company was launched in 2010 and also raised more than 15 million € for its development across the world. Following their analysis, there are few scale-ups in Belgium for several reasons. First of all, there is a problem of technological resources in Belgium. Belgian startups have troubles to identify and have access to the correct technologies for their activities. This is actually a general fact even for big companies in the sense that they have a tendency to develop themselves the technology they need even if they are accessible on the market. This creates negative impacts for Belgium since big companies are accusing lateness versus other big companies in Europe that don't hesitate to directly integrate existing technological solutions and, on the other hand, because Belgian startups that are innovative can't count on big companies as clients or investors. In addition, there is the fact that the Belgian ecosystem, even if it is improving, is still behind other European countries, neighbors even, which manage to attract Belgian entrepreneurs and startup creators on their territories (Deletaille, 2017).

- **Market needs – Innovation – Sectors**

There are, like in the other countries analyzed, specific sectors that represent the largest amount of startups in Belgium. First of all, the most important sector is Media with a total of 13,6% of all Belgian startups, then there is the Healthcare sector which represents 10,2 % and to complete our top 3, there is the Marketing sector which represents 8,2% of the total startups' activities (Godard, 2018).



Source: (Godard, 2018)

Regarding unicorns, there is only one unicorn present in Belgium. Collibra, which is a startup specialized in data governance, has just been valued over 1 billion \$ in January 2019. It is the very first unicorn produced by Belgium. The company is actually aiming at globalization and has already implemented offices in different countries. The second headquarters of the group has been inaugurated in New York. Alphabet, which is part of the Google Group, has just invested more than 100 million \$ within Collibra making it access the very restricted group of unicorns. Other Belgian startups are trying to follow the move realized by Collibra such as Showpad, which is specialized in the sophisticated softwares meant to develop and improve marketing departments within companies. This company has already implemented offices overseas like in California (San Francisco) and Chicago (Lauwers, 2019).

- **Summary:**

The Belgian startup industry is constantly improving. The Belgian ecosystem is reaching a certain form of maturity since new investment funds have been created, researches within Belgian universities are recognized internationally and the support system for startups is being reviewed. Actually, there are many startups that managed to acquire the rightful technical teams, developed an interesting product and managed to raise the necessary funds.

The real problem in Belgium comes from the fact that Belgian startups don't have enough ambition regarding the extension of their activities. The Vlerick Business School states that Belgian startups prefer to stay small so that the creators can have a greater control. They don't want to engage more than 2 or 3 people in the 5 years following their creation.

The Belgian ecosystem is complex, fascinating and constantly improving on different aspects. One of these aspects is the capacity of fundraisings and the attractiveness for national investors. Indeed, since 2016, at least 350 million € are invested in the Belgian startup ecosystem. It is still poor compared to the other European countries analyzed but the complexity of the Belgian landscape can also be an explanation to the fact that there are some issues to solve in order to catch the delay. Belgian business angels play a great role in this investment improvement. However, there are important differences between the 3 Belgian regions. Flanders and Brussels have clarity and a common structure under which a business angel can act. In Wallonia, it is way more difficult for a startup and for a business angel to have access to the correct information regarding investments. There are no common structures in Wallonia in which business angels can reunite and act.

Belgium is currently trying to install the necessary conditions in order to stimulate startup creations and their development nationally and globally. First of all, the Belgian government launched the Digital Belgium initiative that has the objective to encourage innovation and develop the digital industry within Belgium and throughout Europe. Belgium has the objective to enter the top 3 of the Digital Economy and Society Index, by 2020. In addition to this initiative, Belgium and more especially Brussels inaugurated the French Tech Brussels. The goal of this initiative is to develop important synergies between French and Belgian startups and to create important backing assistance systems between the two countries and between big companies and startups. There is actually a lack of investments of these big companies in Belgian startups, as they rather prefer to develop the innovation themselves rather than integrating little external structures to their core businesses.

Regarding the tax system, Belgium has instaurated an advantage incentive for startups and young companies. The Tax Shelter initiative allows a startup, respecting some conditions, to either reduce by 30% or 45% its taxes in the first 4 years of its existence. Not only is it advantageous for startups but it is also advantageous for investors. Investors can effectively

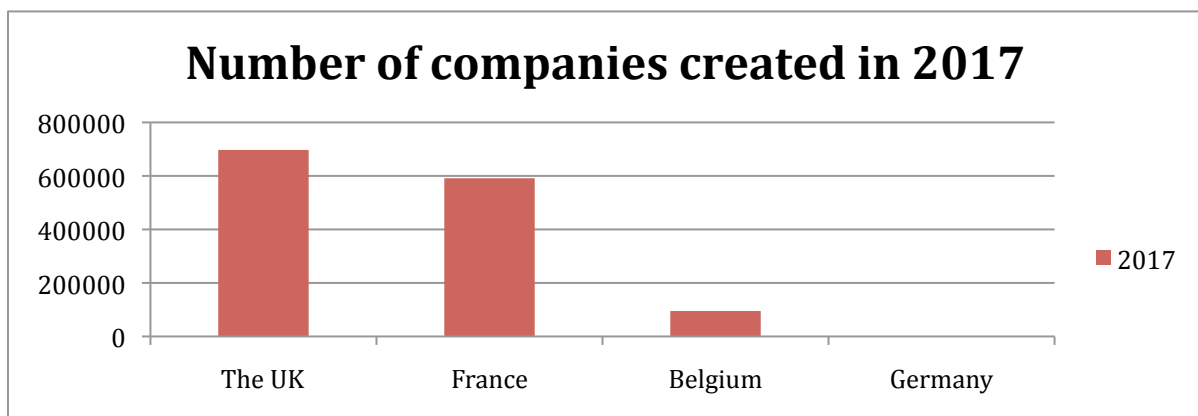
receive a tax deduction of 45% of the total amount invested. It also has to be acknowledged that Belgium has one of the most important corporate tax rate in Europe, 33,99%.

To summarize, there are more and more Belgian startups created year after year with a peak reached in 2018. These startups are actually receiving greater amounts of investment in order to develop their activities. There are important networking systems within Belgium and important events organized in order to increase the mentoring and the coaching of startups, especially since there was a merger between startups.be and scaleups.eu. There is still a poor interest of big companies in these startups, which leads to competition for innovative solutions. A startup creator can rapidly be discouraged by the complexity of the administrative procedures in Belgium in order to start a business and by the fact that there are some differences between the 3 regions. In fact, there is too little information transmitted to startups in order to help them in their search of support and in order to clarify the situation of every region. However, there is an important increase in terms of startup creations within these 3 regions.

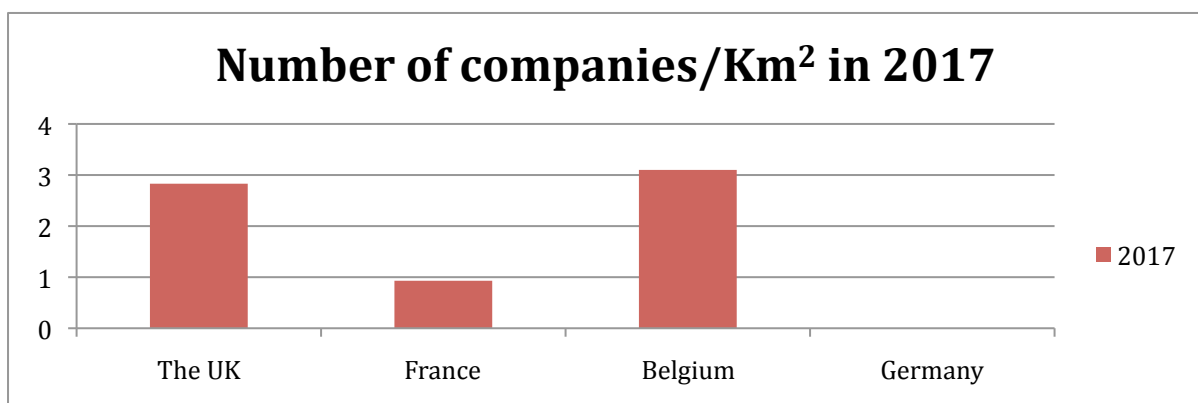
- **Comparison between Belgium and the selected European countries**

First of all, it is important to acknowledge that we will only compare the most important aspects of every section and country. The goal of the comparison is to highlight the performances of the Belgian ecosystem in regards to the other European countries performing well and recognized worldwide.

As it is possible to see on the graph below, there is a huge gap that separates the number of creations in Belgium and in France and the UK. Unfortunately, the data for Germany was not available. The UK nearly created 700.000 startups in 2017 while France created 591.300 startups at the same period. Belgium, on the other hand, registered the creation of 95.081 startups on its territory.

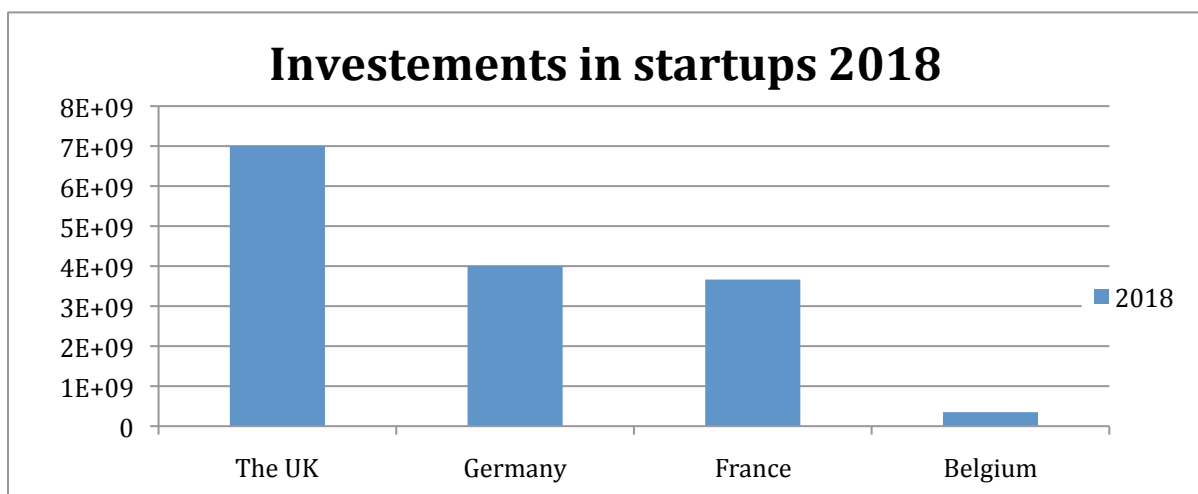


These numbers have to be reconsidered regarding the size of the country and the total population. If we analyze the graph below, it is possible to see that actually Belgium has the best ration when it comes to startup creations per square kilometer. This means that the Belgian startups ecosystem has potential and possesses incentives to stimulate creations.

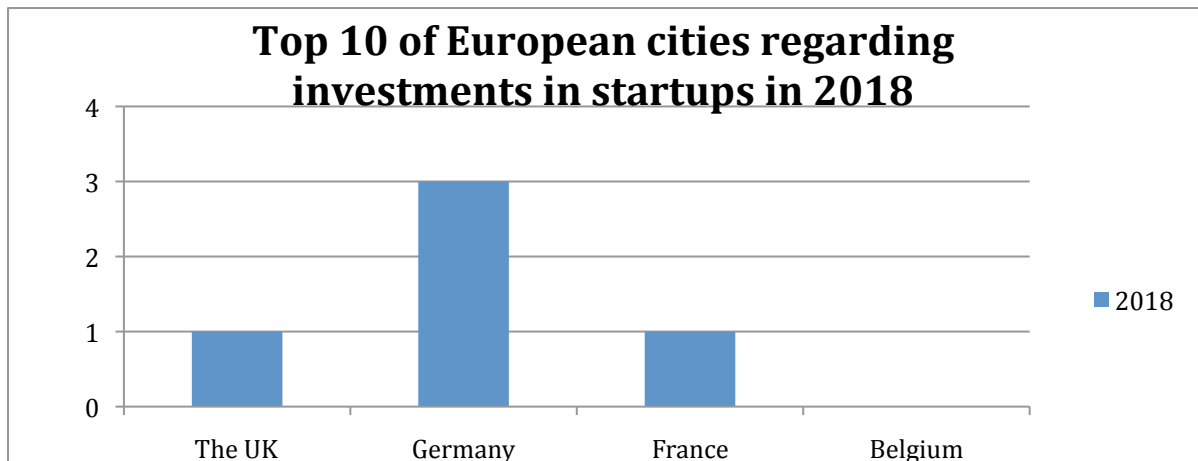


- **Funding capacity**

In 2018, each country analyzed managed to reach important investments. The UK raised around 7 billion €, Germany around 4 billion € and France a little bit more than 3,5 billion € for their respective startups. Belgium, on the other hand, manages to keep an increasing and stable growth of investments, around 350 million € for its startups. However, this financial performance is still too little compared to these neighbours. Belgian startups have poor globalization plans and a part of the explanation comes from the lack of financial resources.



In addition, it is possible to see that Belgium doesn't possess any city in the top 10 of European cities receiving important investments. If Brussels, for example, wants to play the same role for startups as do London, Paris, Berlin and even Amsterdam (Appendix 1.e.) then there must be development plans in order to stimulate investments in Brussels. Brussels is the capital of Europe and the capital of Belgium. It is well situated, at the center of Europe and an easy accessibility to important economic players such as the UK, France and Germany. Brussels has in fact a lot of features that would make it a great development location for startups. Different incentives must be put in place in order to help Brussels gain the visibility and the attractivity necessary for this development.



○ **Administrative aspects**

On the 4 countries analyzed within Europe, Belgium is the country with the most complex administrative procedures regarding the creation of a startup. In addition, the administrative formalities require time and the need of a lawyer/notary. This also demands a certain cost. Just for the notary, the amount can raise up to 900 €. The European example for administrative procedures regarding startups is the UK where a startup can be created in less than 24 hours and where there is no need for a lawyer. The cost to set up a startup in the UK is near 0. Thus, the administrative procedures in the UK act as a real stimulation. Belgium should integrate this statement and review its procedures in order to simplify them.

Simplified	Complex
<ul style="list-style-type: none"> - The UK - Germany - France 	<ul style="list-style-type: none"> - Belgium

No need of a lawyer	Need of a lawyer
<ul style="list-style-type: none"> - The UK - Germany 	<ul style="list-style-type: none"> - France - Belgium

○ **Tax system**

With the Tax Shelter, Belgium offers a real advantage to startups. Belgium is well known for its important corporate taxes and the Tax Shelter appears to be a real game changer. Even though the UK, Germany and even France all have advantageous systems, Belgium manages to create an environment for startups where it is possible to receive either 30% or 45% tax reductions which is clearly not negligible. It has to be observed that on this matter (taxes), all the countries analyzed set up different incentives for startups that all seem to be successful. The analysis of the tax system of each of these countries highlighted the fact that none acted as brake for the development of startups.

	Advantages	Inconvenients
The UK	<ul style="list-style-type: none"> • Different level of corporate taxes following benefits realized – sometimes 0% • Simplified tax system • Corporate tax never exceeds 30% 	
Germany	<ul style="list-style-type: none"> • Taxes on companies only concern half the shares and the value added realized • Low corporate tax 	
France	<ul style="list-style-type: none"> • Possible tax reduction of 20% for innovative startups 	<ul style="list-style-type: none"> • In general, high corporate taxes: 33,3%
Belgium	<ul style="list-style-type: none"> • Possible tax reduction of 30% or 45% following the startup – Tax Shelter • Investors: 45% reduction of the total investment on their taxable basis 	<ul style="list-style-type: none"> • In general, high corporate taxes: 33,99%

○ **Ecosystem-Infrastructure**

Regarding the ecosystem of each important city and the infrastructures offered to startups, it has to be observed that each of these cities offers important accessibility features to startups except for Berlin. Berlin is a bit more distant from Western Europe. Paris, Brussels and London are all near the coasts with important transport systems. In addition, London has a really international environment while Paris and Brussels a European environment. Furthermore, the costs of offices are really advantageous in Brussels and especially in Berlin. The only meaningful reproach that can be made to Brussels and Belgium in general, is that there are too many differences between the 3 regions and their ways of operating.

	Advantages	Inconvenients
London	<ul style="list-style-type: none"> • English environment • Accessibility 	<ul style="list-style-type: none"> • Exepensive (60.000€ for an office for 4)
Berlin	<ul style="list-style-type: none"> • Low accommodation costs • The Mittelstand 	<ul style="list-style-type: none"> • Accessibility
Paris	<ul style="list-style-type: none"> • Lowest costs regarding co-working spaces in Europe • Accessibility • Station F (3.000 workstations) 	<ul style="list-style-type: none"> • Expensive for offices
Brussels	<ul style="list-style-type: none"> • Center of exports – Accessibility • Lower accommodation costs than the other european cities analyzed 	<ul style="list-style-type: none"> • Important differences between the 3 regions

○ **Employment**

There is actually one country where the labor law is really beneficial for the startup creators when recruiting. The Uk offers advantageous lay off conditions to startup employers, which is a critical point when facing an inappropriate recruitment. The 3 other countries (France,

Germany and Belgium) possess labor laws that are generally always in favor of the employees which makes it hard to deal with when facing an inappropriate recruitment. However, in Belgium, some stimulations have been set up regarding the first recruitments where an employer doesn't have to pay any contributions for the first employment and where there is an important reduction on the withholding taxes if there is a research and development project within the startup. Unfortunately, Belgium is behind the other European countries regarding the employment rate of startups.

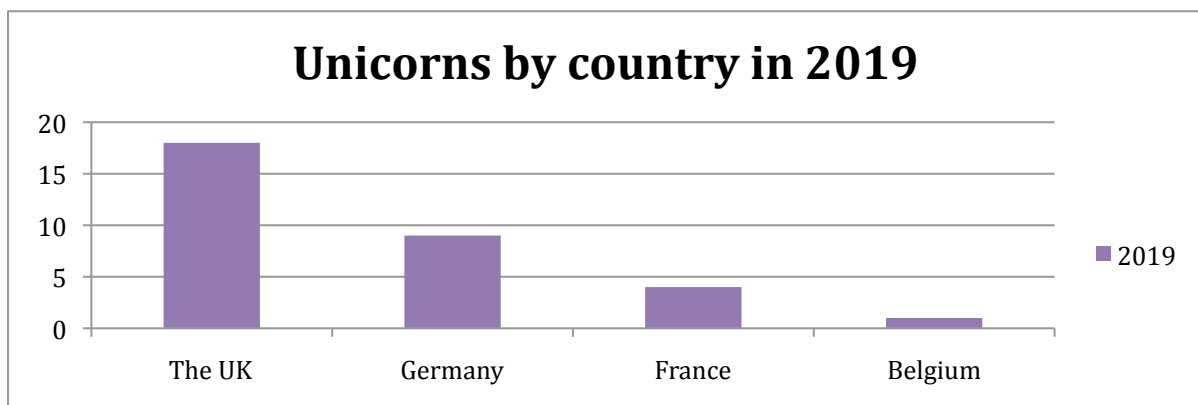
	Advantages	Inconvenients
The UK	<ul style="list-style-type: none"> • Flexible labor laws • Lay-off conditions 	<ul style="list-style-type: none"> • High salaries du to education and low unemployment rate • High extra legal benefits • Need of recruitment firms
Germany	<ul style="list-style-type: none"> • Low social charges 	<ul style="list-style-type: none"> • Labor law very protective towards employees • No lay off flexibility after 10 employees
France	<ul style="list-style-type: none"> • Freelancers • Wage Portage 	<ul style="list-style-type: none"> • Important social charges – labor law very protective towards employees • Low employer protection • High salaries
Belgium	<ul style="list-style-type: none"> • Flexibility in working hours • Reduction of the employer's contributions regarding first employments and the research and development department 	<ul style="list-style-type: none"> • Low employment rate in startups • Shortage of talents

- **Networking**

Networking is a priority for these countries regarding the positive results observed throughout the analysis. There are different support systems following the country and there are even cooperation systems that are implemented between countries like the UK and France. In France and in Germany, there are two specific structures that really exist to support and guide startups throughout their development and to offer them the adequate access to resources and coaching, respectively known as the Station F and the Factory Berlin. Regarding Belgium, there are important structures starups.be and scaleups.eu that have merged in order to create an even bigger guiding and supporting system. There are several major events in order to recognize and promote startups with high potential but unfortunately there is a lack of big companies support. The Mittlestand could inspire Belgium where big companies such as Google and BMW don't hesitate to collaborate and to integrate startups to their businesses.

- **Market needs**

On the 355 unicorns that exist cross the world, few of them come from Europe and from the European countries analyzed. Belgium, however, managed to integrate this ranking for the first time in 2019. The business model and the strategy used by Collibra, which is the Belgian unicorn, could highlight the path to follow for the future Belgian startups aiming at globalization. In addition, the sectors in which the startups issued from these different countries are very different. The first sector of French startups is transports whereas in the UK it is the artificial intelligence and in Belgium, the media sector.



Section 3: Conclusion

- **Limitations of the research**

In the following paragraphs, we look at the limitations of our study one by one, providing comments, explanations and justifications for how we have dealt with each of these limitations.

First of all, it has to be acknowledged that the accessibility to data differs from one country to another and, from one industry to another and regarding the different sections. Indeed access to data has been a limiting factor. Some specific points demanded more efforts than others. In addition, by using data from existing studies, this report is mostly retrospective and could not possibly capture upcoming policy changes. However, we believe that we had access to sufficient data to be able to do an analysis that allowed us to highlight the common features.

Moreover, extrapolating scientific literature from other countries is complicated and access to most of the documents was restricted. Additionally, the authors of these studies might not always be objective. There might be conflicts of interests. We have taken this into account and the data and the information chosen to complete this thesis have been selected with the utmost care. Comparing different data from different studies proved to be of great help. Furthermore, we have been privileged to be able to use some of the statistical tools that the European Commission puts at the disposal for the analysis. Some precious information was retrieved from the European Commission's database.

Thirdly, the 3 regions in Belgium do not present their information in a consistent manner and the different sources had to be analyzed first to ensure their reliability. This is the main reason only recognized and official organizations were used when analyzing data for Flanders, Wallonia and Brussels.

Finally, the studies incorporated in the report are based on small samples of the startup population. The great number of startups in each country doesn't allow a large-scale survey. However, the studies incorporated were realized by recognized organizations such as

consulting firms (PWC, EY...) and universities (Vlerick Business School) that well known for the scientific robustness of their work.

- **Conclusion**

Startups are an important socio-economic subject for every country, every global trade organization and every government. The value startups create is significant and each country should set up the adequate tools in order to stimulate startup growth. This report actually discusses these tools and looks at how they differ from one country to another. We took the USA as a global benchmark for startup dynamics, and built our hypotheses on that basis. These were subsequently analyzed for Europe and more precisely, for France, Germany, the UK and Belgium.

The hypotheses regarding the critical factors of success for startups are based on 7 specific points: Funding capacity; Administrative aspects; Tax system; Infrastructure; Employment; Networking; Market needs. These hypotheses were the basis of our analysis of the different selected European countries.

Globally, these hypotheses are verified in the sense that the study of each country allowed us to identify these factors as game changers for startups. This doesn't mean, however, that each country managed to set up the right tools in each of these points. In some countries, some of these factors are actually acting as a brake for startup growth. It has to be noticed that none of the countries analyzed has managed to implement a perfect ecosystem for startups, even if some of these countries are amongst the greatest economies in the world and are widely recognized for their startup dynamic. However, London clearly stands out for Europe as a benchmark.

Furthermore, regarding Belgium, there is clearly a new dynamic for startups, which has been noticed since a couple of years. Not only does the amount of funds raised increase year after year but also does the number of startups created. These encouraging numbers can be explained by the advantageous tax system (Tax Shelter) that has been implemented throughout Belgium and that acts as an incentive for the startup creators as well as for the investors. In addition, like other European capital cities, Brussels offers an impressive ecosystem and great accessibility to important trade points within Europe and overseas.

However, Belgium has important gaps to fill before it can pretend to be an important player on the European startup market. Three specific points need attention in the following years in order to increase attractiveness, visibility and startup facilities, which would allow Belgium, and especially, Brussels to make a difference. These three specific points are as follows:

- Administrative procedures
- Employment and recruitment processes
- Difference between the 3 regions

Our analysis has shown that the administrative procedures constitute a real brake for startups. These administrative procedures are expensive, time consuming and the information given to startups isn't very clear. In order to stimulate company creation, Belgium needs to simplify its administrative process and to bring clarity.

With regards to the employment and the recruitment processes, we have found that Belgian startups are also facing difficulties, which, in the end, may lead to discouragement. First of all, there is a shortage of available talent on the market. In addition, Belgian startups don't have the incentives to create as much employment as the rest of the European countries that we analyzed. For startups, the labor law is too protective, which can be expensive when these young companies need to reduce staff, for example in the case of bad recruitments. Recruitment is always difficult, especially for startups that lack of practical experience. Belgium has to set up a system in which startups can bounce back from their mistakes.

Finally, Belgium suffers from inconsistency between its three regions in terms of information, supporting structures and globalization plans. A Belgian startup doesn't start its activities with the same support system as in other countries and there is a lack of clear information transmitted to startups. The 3 regions act separately which leads to a certain form of competition and slows down the development of startup dynamics within Belgium as a whole. Further studies should be realized on this subject in order to analyze the 3 regions and to show how the 3 different systems can be made to interact with each other in order to create a global Belgian ecosystem.

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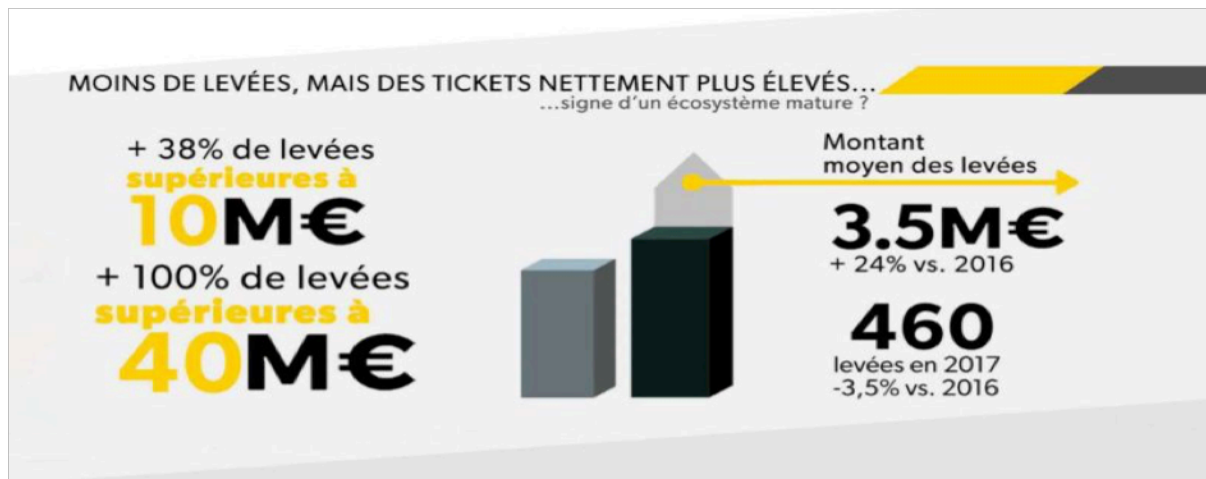
Appendices :

1.a : World's greatest economies

Classement PIB : la liste des pays les plus riches du monde			
Rang	Pays	PIB 2018 (milliards \$)	Evolution
1	Etats-Unis	20 200 mds \$	+4%
2	Chine	13 119 mds \$	+10%
3	Japon	5 063 mds \$	+4%
4	Allemagne	3 935 mds \$	+8%
5	France	2 766 mds \$	+7%
6	Royaume-Uni	2 661 mds \$	+4%
7	Inde	2 654 mds \$	+9%
8	Brésil	2 200 mds \$	+6%
9	Italie	2 049 mds \$	+7%
10	Canada	1 763 mds \$	+8%

Source: (Farine, 2017)

1.b : Money invested in french startups



Source: (Combes, 2018)

1.c : French Tech

LA FRENCH TECH : Définition

C'est l'écosystème des startups françaises.

C'est aussi une initiative publique innovante au service de l'écosystème French Tech et portée par le Ministère de l'Economie.

La FRENCH TECH

INITIATIVE FRENCH TECH : Ambition

L'Initiative French Tech impulse une dynamique collective avec l'objectif de placer la France parmi les grandes *startup nations*. Les startups championnes de demain seront créatrices de valeur économique et d'emplois en France.

INITIATIVE FRENCH TECH : Action

Fédérer

1 Une marque collective qui fédère une communauté.

2 Un réseau national avec Paris-IDF, 13 Métropoles French Tech en régions et 9 Réseaux Thématiques French Tech en France.

3 Des acteurs publics nationaux qui se fédèrent au service de la French Tech : Bpifrance, Business France, Caisse des Dépôts, Direction Générale des Entreprises, Direction Générale du Trésor, Ministère des Affaires étrangères et du Développement international, Commissariat Général à l'Investissement.

Accélérer

1 Un fonds d'investissement de 200 M€ pour les accélérateurs de startups privées, opéré par Bpifrance.

2 La Bourse French Tech : un financement d'amorçage pour lancer sa startup, opéré par Bpifrance.

3 La Pass French Tech** : une offre premium pour les entreprises en hyper-croissance de Paris et des Métropoles French Tech.

4 French Tech Diversité : un programme d'accompagnement pour favoriser la diversité des talents entrepreneuriaux.

Rayonner

1 Une plateforme d'attractivité pour promouvoir la French Tech à l'international (budget de 15 M€*).

2 Les French Tech Hubs : un réseau mondial de 22 communautés French Tech labellisées.

3 Le French Tech Ticket : un programme d'accueil à Paris et dans les Métropoles French Tech pour les entrepreneurs internationaux.

4 Le French Tech Visa : une procédure simplifiée et accélérée d'obtention d'un titre de séjour pour les entrepreneurs, salariés et investisseurs internationaux.

Logos: bpifrance, BUSINESS FRANCE, DGE, TRÉSOR, etc.

Social Media: @lafrenchtech, #Frenchtech, lafrenchtech.com

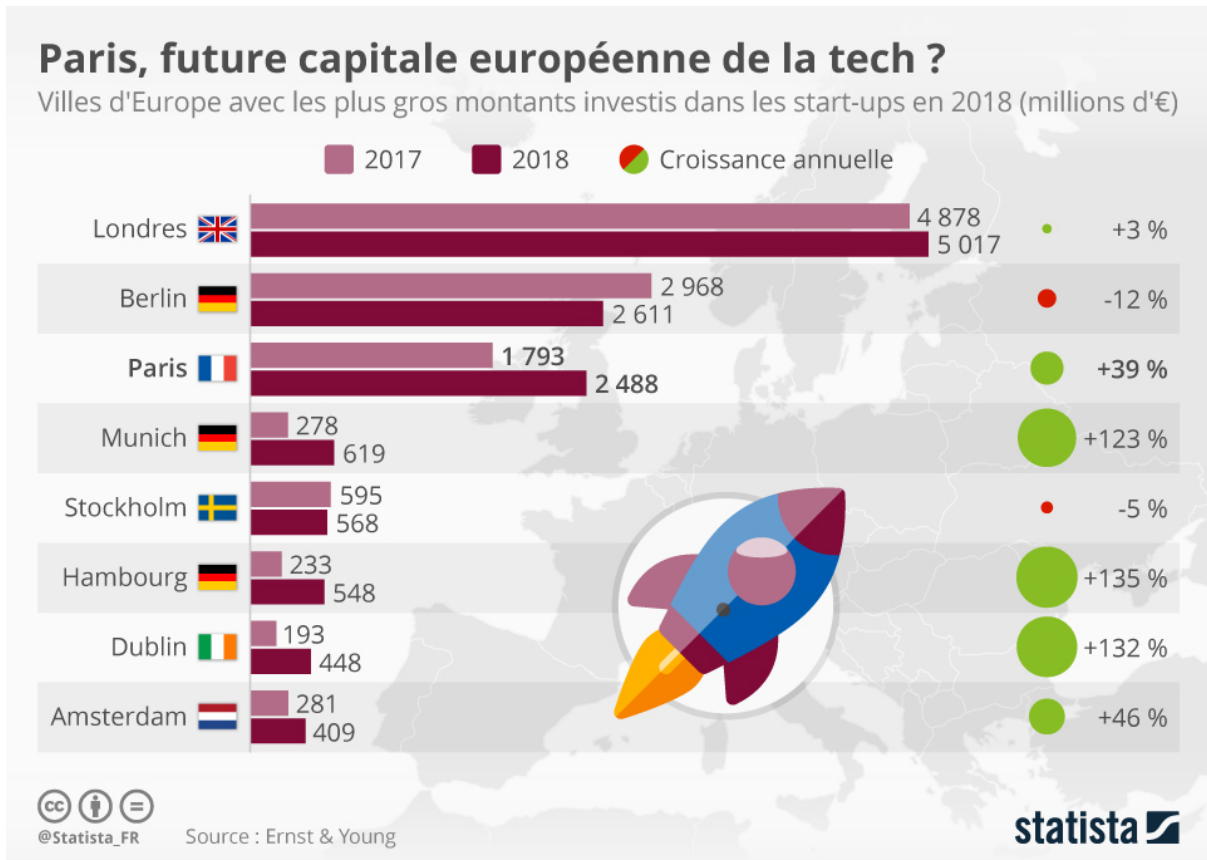
Source: (Combes, 2018)

1.d : Europe's business schools ranking

	Rank 2018	Rank 2017	Business School	Country	Full time MBA 2018	Executive MBA 2018	Masters in Management 2018
<input type="checkbox"/>	1	1	London Business School	UK	2	9 (3) (9)	3
<input type="checkbox"/>	2	2	HEC Paris	France	6	4 (1)	2
<input type="checkbox"/>	3	5	Insead	France / Singapore / UAE	1	8 (2)	-
<input type="checkbox"/>	4	4	University of St Gallen	Switzerland	15	26	1
<input type="checkbox"/>	5	7	Iese Business School	Spain / US	3	5	-
<input type="checkbox"/>	6	6	Università Bocconi, SDA Bocconi	Italy	9	42	6
<input type="checkbox"/>	7	10	IMD Business School	Switzerland	7	13	-
<input type="checkbox"/>	8	23	Essec Business School	France	28	23	4
<input type="checkbox"/>	9	9	Rotterdam School of Management, Erasmus University	Netherlands	11	29 (21)	8
<input type="checkbox"/>	10	12	University of Oxford: Saïd	UK	8	11	-

Source: (Financial Times, 2018)

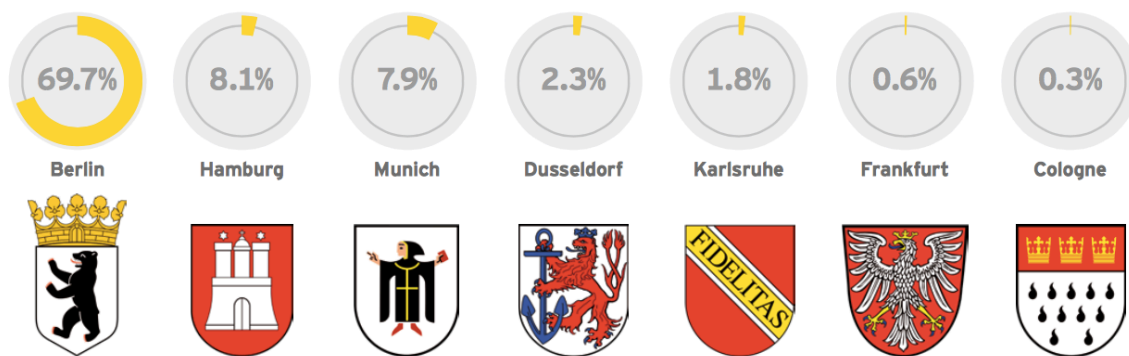
1.e : Investments in european startups by city



Source: (Gaudiaut, 2019)

1.f : Startup volumes in Germany

Key locations of top 100 start-ups in terms of funding



Source: Thomson One, Mergermarket, Crunchbase, press releases

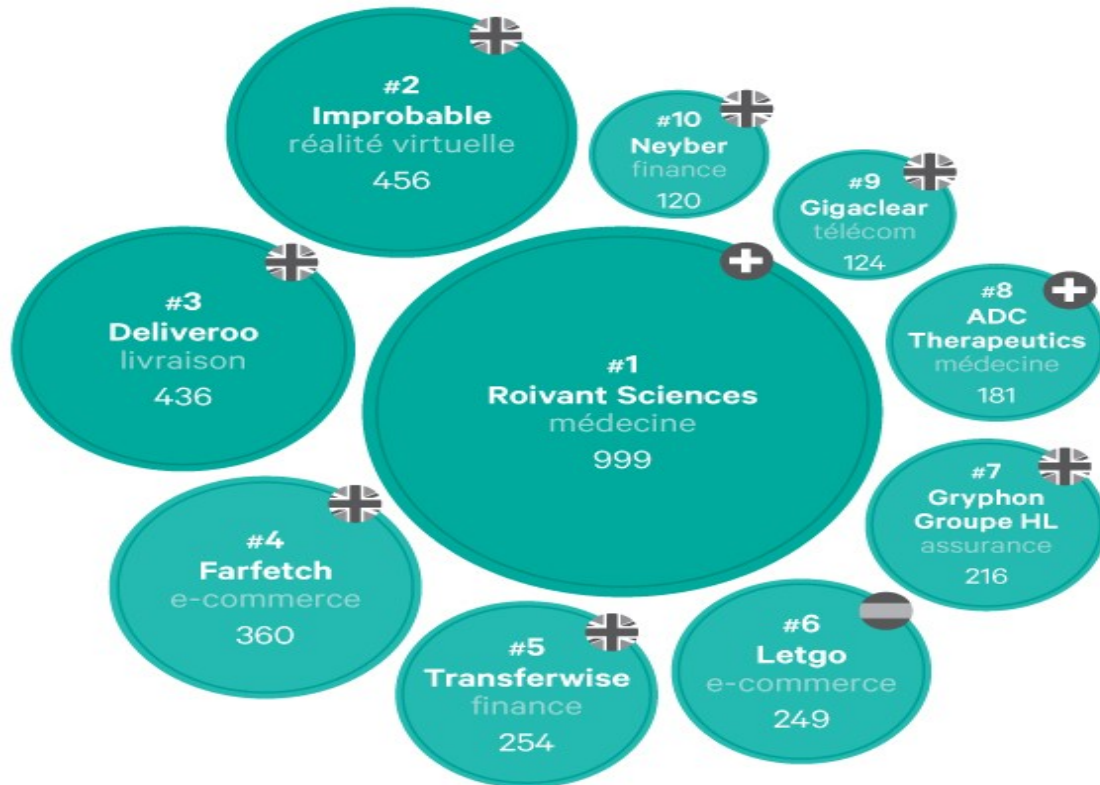
Source: (EY Germany, 2017)

1.g : Major fundraisings in the UK

Les 10 start-up ayant levé le plus de fonds en Europe en 2017

En millions d'euros

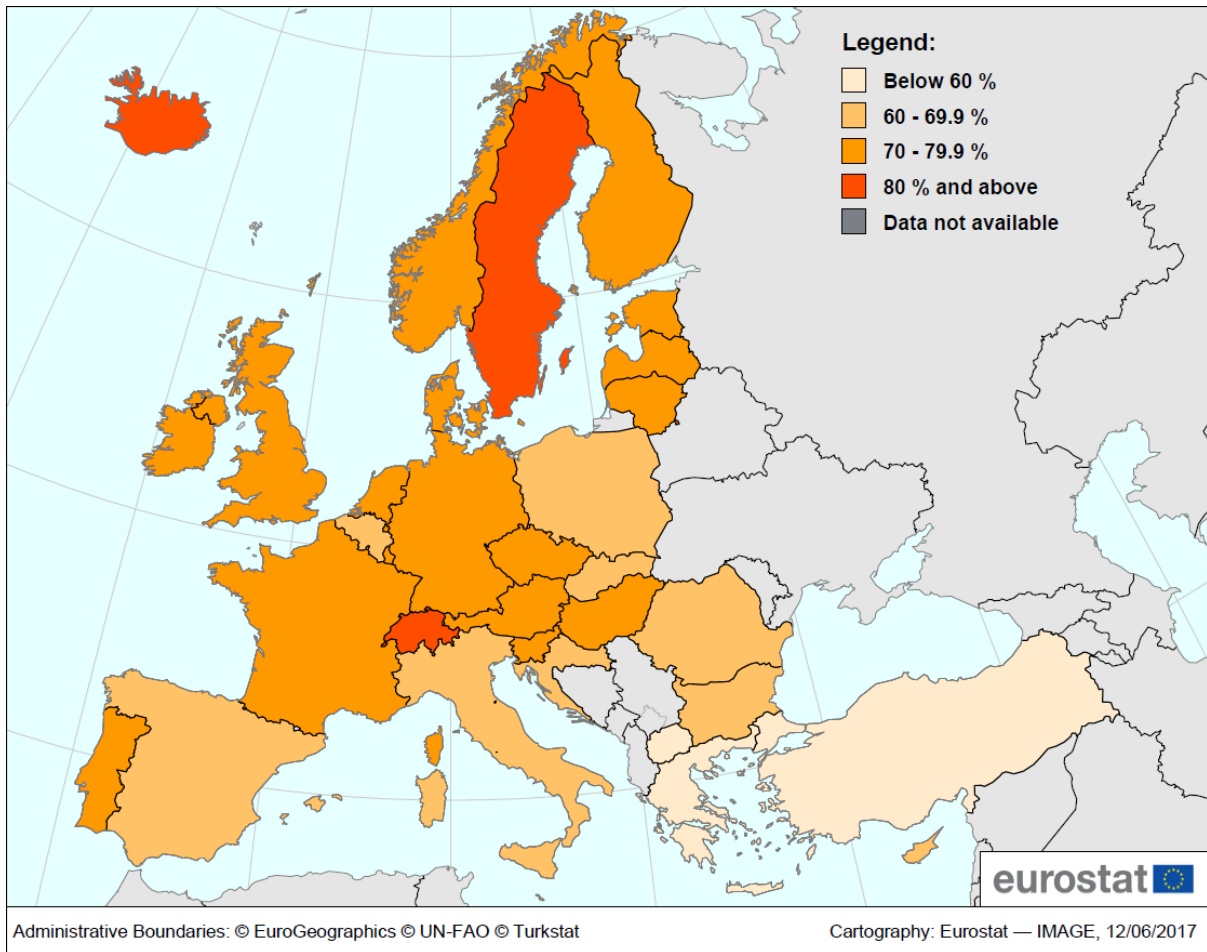
Origine :  Royaume-Uni  Espagne  Suisse



« LES ECHOS » / SOURCE : DEALROOM

Source: (Grondin, 2017)

1.i : Employment rate, age group 20 – 64, 2016 (%)



Source : (Eurostat, 2018)