

**UNDERSTANDING INNOVATION & ENTREPRENEURSHIP
IN FLANDERS**

MIT Innovation Diplomat UROP | Final Report | Fall 2016

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I. EXECUTIVE SUMMARY

Situated in the northern half of Belgium, between France and the Netherlands, Flanders is a region that has featured prominently in European history, but that has only experienced heavy industrialization since the second half of the 20th century. Since the second oil shock of the late '70s, the region has looked to spur innovation through its “Third Industrial Revolution”, focusing on IT, biotech and new materials.

I am interested in analyzing and identifying existing gaps in today’s innovation-driven entrepreneurial (IDE) ecosystem in Flanders. To this end, I have sourced information from 10 formal interviews, literature review, and online research, and consequently applied the MIT Sloan School of Management’s Stakeholder Model in analyzing the Flemish ecosystem’s entrepreneurial and innovation capacities. Below, I will briefly outline the current underpinnings of the ecosystem that support entrepreneurship and innovation, as well as which aspects of the ecosystem could be improved.

The Flemish Ecosystem

Government

The Flemish government has various policies and programs in place to help grow its innovative and entrepreneurial capacities. Various tax incentives exist for investors and companies obtaining patent. Intellectual property law is also significantly developed to protect patent, trademark, and design holders. Several strategic research centers with a specific focus on innovation and its commercialization exist, including IMEC, iMinds, VITO (The Flemish Institute for Technology Research) and VLAIO (the Flanders Innovation & Entrepreneurship Agency). Government also co-invests with other VCs

in innovative startups, offering various subsidies and support to intermediaries that coach and help entrepreneurs.

Corporate

There is some corporate involvement in innovation, with a few innovation consulting firms existing, as well as non-profit organizations that actively support entrepreneurs by providing coaching and training, incubation, acceleration, and networking and pitching opportunities. Multinational firms, such as Deloitte, have a presence in the region; Deloitte in particular has an Innovation Centre that focuses on identifying entrepreneurial talent and helping young tech companies in the innovation process. Recent company investments in research & development have totaled a few billion Euros.

Risk Capital

Several self-titled venture capital and private equity firms exist in the region, although opinions on their capacities differed widely in interviews. All considered, there does appear to be several funding agencies in existence, although it is clear that none make the heavy investments (such as over €60 billion) that have become so characteristic of the Silicon Valley startup scene. This lack of heavy capital could however, to a smaller extent, also be due to the lack of sophistication of financial markets in comparison to the US, and even Germany.

University

Universities in Flanders remain very closely linked to innovation, with a large percentage of intellectual property coming from them. However, in general, campuses are less entrepreneurial than their equivalents in the US, perhaps due to the novelty of the independent Flemish innovation ecosystem being developed. KU Leuven, in

particular, is one university in the region intent on developing and strengthening entrepreneurial culture on campus, notably through its student-driven initiative, the Leuven Community for Innovation-driven Entrepreneurship (LCIE).

Entrepreneurs

Flemish entrepreneurs will rarely drop out of school to pursue startup ideas, due to a low risk tolerance and relative affordability of tertiary education. Several mentoring programs exist to encourage and support entrepreneurs, as well as co-working spaces and startup accelerators. Notably however, startup expansion frequently tends to stagnate when enterprises reach small-medium size, often due to a lack of adequate funding, and difficulty in expanding internationally. At this point, startups are often sold to larger companies.

Challenges and Recommendations

Government

Pressing issues within government include a lack of large-scale investment, as well as strict legislation on hiring and firing that hampers startups willingness and sometimes ability to hire staff unless they absolutely have to. To combat this, I would recommend:

- Looking into amending tax benefits to incentivize large investment from high net worth individuals and foreign investors/corporations
- Loosening of labor legislation, to enable smoother hiring and if necessary, firing processes

Corporate

Corporate involvement in innovation and the startup scene, while present, could be greater. Some recommendations to increase involvement are:

- Exploring corporate-startup partnerships to solve problems by merging their unique skill sets, thereby giving entrepreneurs larger platforms, and corporations access to novel technology and talent.

Risk Capital

Although active in Flanders, risk capital, as well as its reach and engagement could definitely expand further. The high risk-aversion to true venture/risk capital means that large investments vital to startup growth are often not made. To deal with this, I would recommend:

- Engaging finance professionals and high net worth individuals in establishing full-time, professional private equity and venture capital firms, instead of simpler funding agencies.
- Improving public and therefore investor perception of risk capital as equivalent to heavy-handed capitalism, through documentaries, social media, media articles and even pamphlets.

University

The major issue confronting universities appears to be low student engagement with the entrepreneurship/startup community. Some strategies to tackle could include:

- Reaching out to students in their first year, or even sending them informational guides about the university startup scene and entrepreneurial resources just before they arrive.
- Exploring the viability of developing a 'minor' program in Entrepreneurship & Innovation, similar to that found here at MIT.
- Forming a solid alumni entrepreneur network, to enable current student entrepreneurs to have access to and mentorship from former students.

- Start engaging youth earlier on, in their later years at secondary school, to make them aware of entrepreneurship and its validity as a career.

Entrepreneur

Several barriers to setting up commercial ventures still exist, making thresholds high for prospective entrepreneurs. To combat these, I would propose the following recommendations:

- The introduction of special government stipends for entrepreneurs, to exist for a short period of time after an entrepreneur comes out of unemployment/post-PhD job searching (thus foregoing traditional government support stipends for such situations) to launch a new venture.
- The introduction of formal legislation on license compliance, to combat tech startup revenue loss due to competitors stealing/using their software without appropriate licensing.
- Appointing various current/former entrepreneurs as industry experts within government innovation agencies and funds, to enable a better understanding of proposed startup ideas that might be unusual/niche, but promising.
- Increasing transparency on tax-cut information for entrepreneurs, as simple re-wording/re-registering of a startup can save small companies substantial revenue in taxes.

Conclusions and Future Work

Despite not being the European twin of Silicon Valley, Flanders does have an expanding and consistently improving innovation-driven ecosystem. In retrospect, I would have liked to carry out more interviews with individuals in each stakeholder group, especially within Corporate and Risk Capital, to better understand the complexities of both, as well as the discrepancy in the definition of risk capital by stakeholders.

While this work has afforded some useful insights into the Flemish innovation ecosystem, it is worth noting that the Wallonia region, located in the southern-half of Belgium, might benefit more from a REAP experience, as its innovation ecosystem is far less developed. It is my hope that in the coming months, I may be able to apply the frameworks and information learned in the making of this report to more closely analyzing the Wallonia ecosystem, its stakeholders, and what gaps might lie within its system that MIT's REAP program could help address.

II. INTRODUCTION

Nestled between France, Luxembourg, Germany, the Netherlands and the North Sea, Belgium is home to three regions: Flanders, Wallonia, and Brussels Capital. For my I-Diplomat project, I chose to study the region of Flanders, interviewing stakeholders within government, risk capital, education, entrepreneurship and corporations, to better understand how they interacted to produce the Flemish innovation ecosystem currently seen today.

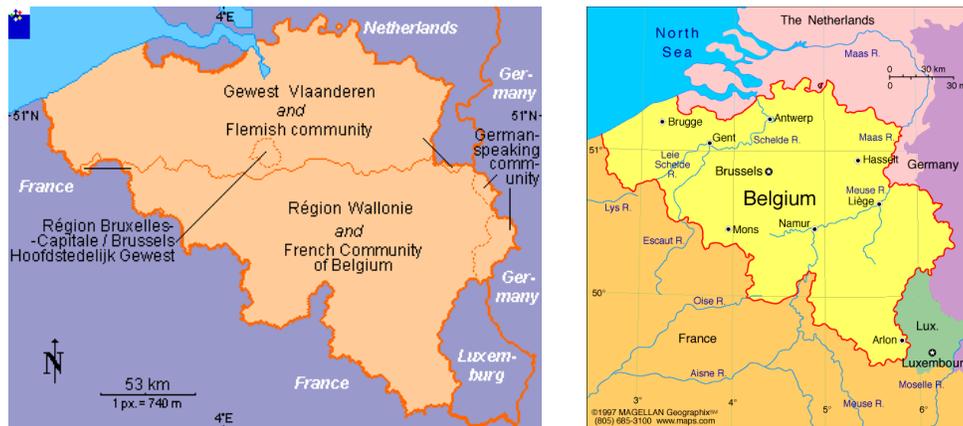


Fig. I-1 & Fig. I-2. Maps of Belgium. The first map shows the three federal regions within the country, while the second shows the country as a whole, with key cities and the country capital, Brussels. Sources: <http://belgium.rootsweb.ancestry.com/bel/subdivisions.html> (Fig. I-1) and <http://www.infoplease.com/atlas/country/belgium.html> (Fig I-2).

Flanders has featured prominently in European history. In the Middle Ages, the well-known cities of Ghent, Bruges, Antwerp and Brussels contributed to making it one of the richest and most urbanized regions in Europe, quickly developing a manufacturing and export industry for wool and cloth. The region consequently developed a sophisticated and innovative culture, marking milestones in the arts, architecture, and soon industrialization. The road to becoming industrialized was initially slow, with

Flanders lagging behind its southern counterpart, Wallonia. By the second half of the 20th century however, the Flemish economy had undergone intensive modernization, emerging considerably more wealthy than Wallonia.

By 2004, the total GDP of Flanders was €165,847 billion, with a PPP (purchasing power parity) per capita GDP at 23% above the EU average. Productivity per capita stands at roughly 13% higher than in Wallonia, with wages at about 7% more. The Flemish economy has evolved from relying on food processing and textiles, to rapid growth of its chemical and petroleum industries. Despite the 1973 and 1979 oil crises that plunged the economy into a recession, its steel industry has remained fairly active. Today, the region is heavily export-oriented, with an emphasis on value-added and refined goods, such as automobiles, food and food products, iron and steel, finished diamonds, plastics, petroleum products, textiles and non-ferrous metals. The region is also home to many well-known science and technology institutes, including IMEC, VITO, Flanders DC and Flanders Drive. (The northern city of) Antwerp is ranked the world's number one diamond market, with diamond exports accounting for a tenth of all Belgian exports. The city is also home to the largest BASF (the German chemical company widely held to be the largest world producer) base outside of Germany.

The goal of this report is to analyze and better comprehend the concept of innovation in Flanders, its current stakeholders, and the future of its startup community. In doing so, I aim to determine the existing gaps in the Flemish innovation-driven entrepreneurial (IDE) ecosystem, contributing information to the MIT Regional Entrepreneurship Acceleration Program (REAP) that can hopefully be used in developing a better understanding of Flanders and Belgium as a whole, and laying the beginnings of a framework that might be helpful in possible future collaborations between REAP and Flanders.

III. METHODOLOGY

I used data from online resources such as OECD reports, Trading Economics, the World Bank, and Wikipedia, as well as in-person interviews. The methods used for these sources are further described below.

Analysis

Analysis was carried out by closely following frameworks developed at the MIT Sloan School of Management, such as: the Innovation Ecosystem approach, the separation of general entrepreneurship (resulting in SMEs) from the specific ‘innovation-driven entrepreneurship’, a resulting separation between distinct Innovation and Entrepreneurial Capacities (I-Cap & E-Cap), and the Innovation Ecosystem Stakeholder approach, whose model comprises five key stakeholders (the entrepreneur, risk capital, corporates, government and university) that interact to create an existing innovation ecosystem. These MIT frameworks have been developed by Scott Stern, Fiona Murray, Bill Aulet and Phil Budden, and taught by them in their various classes, as well as in the ‘Regional Entrepreneurship Acceleration Program’ and in Executive Education (ExecEd) sessions.

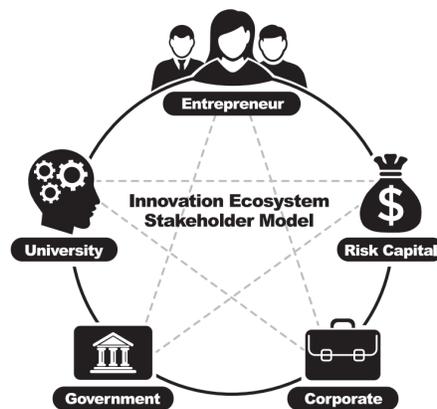


Fig. III-1. The Innovation Ecosystem Stakeholder Model. This diagram depicts the interdependence of the 5 key stakeholders, and the need for their collaboration and contribution in order to create an effective innovation ecosystem.

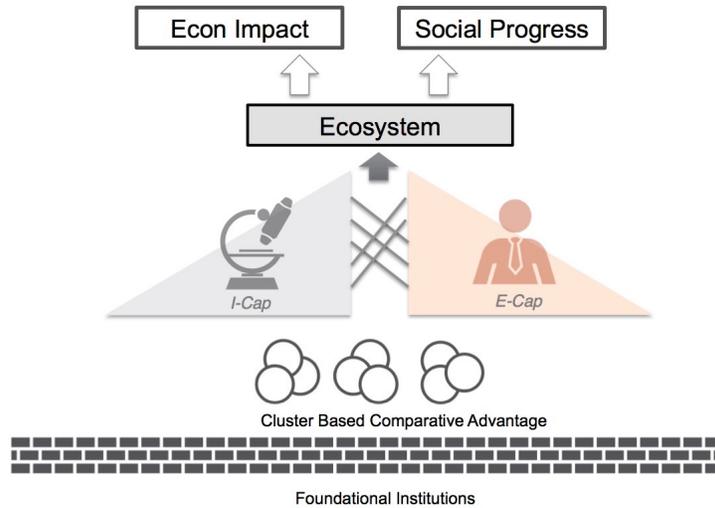


Fig. III-2. The MIT Framework. Above is the Sloan-developed framework depicting how the innovation and entrepreneurial capacities of a system interact to result in economic impact and social progress.

Interviews

My studies primarily focused on 10 formal interviews with individuals within financial institutions, universities, corporations, startups and the government. Roughly half of these interviews were in person, and the other half over Skype or the phone, due to logistics.

Each interview was recorded, with some extra notes or thoughts jotted down throughout. Later on, the recordings were replayed to analyze and draw the most critical points from, which were transcribed and compiled into a document with short backgrounds on each interview subject. Common threads quickly became visible throughout certain groups of interviewees, as well as conflicts in perceptions of the ecosystem that raised interesting questions that I plan to address later on in this report. Unfortunately however, my sample size was quite small, and so the opinions expressed by interviewees may not be representative of the entire Flemish population.

Questions

Interview questions were structured fairly flexibly, tailored to each interviewee so as to accurately reflect their personal experiences with the innovation ecosystem.

Demographics

Interviewees were from a diverse set of backgrounds. A good number of interviews were set up through referrals, as well as cold contact through MIT's alumni platform, Infinite Connection. Background on interviewees was usually sourced from them personally, as well as from their LinkedIn or corporate website biographies.

Several stakeholder groups overlapped interestingly, so that some interviewees in corporate had extensive interactions with entrepreneurs and startups, or so that entrepreneurs were still heavily involved with their university organizations. Stakeholders within risk capital had also had significant experience within teaching and the university.

Secondary Sources

To supplement primary source information from interviews, data from published reports was considered in analysis.

IV. THE FLEMISH INNOVATION ECOSYSTEM

A. GOVERNMENT

The Belgian government has policies that have contributed to Flanders' innovative and entrepreneurial capacity. The country has traditionally been very involved with the European Union and European Commission, receiving funding for science and innovation that is actually a little bit more than what it contributes directly to the EU. [1]

Government Policies

With respect to innovative capacity, several government policies are in place that fall under the following:

Human Capital

Education financed in each region by local government. Schools may either be owned by communities, be subsidized public schools, or subsidized free schools. At the tertiary level, students may be eligible for financial aid (bringing their tuition fee to between €80 and €100 in Dutch-speaking institutions). Students pay fees of between €333.60 and €378.60 if their family income is below €1286.09 per month, and between €500.40 and €567.80 if their family income is above €1286.09 per month.

Non competes must be established in writing, containing all conditions of validity drawn up for every employee individually. No restrictions regarding age, and only effective if employee is dismissed for a serious cause, after trial period or if employment contract is terminated by the employee with a notice period/payment in lieu of notice. Clause must provide for the payment by the employer of lump sum

compensation. Minimum amount is equal to half the gross salary of the employee corresponding to the effective period of application of the clause. Employees who breach terms of the non-compete will be obliged to compensate the employer for any proven damage he or she has caused. Penalty fixed by law at double the compensation the employee receives for not competing. If employer can prove higher actual harm, he may claim a higher penalty. New employers are generally not liable for damages if a new employee violates the terms of an old non-compete contract, unless they actively hired that employee in order to gain access to trade secrets.

To obtain a Belgian Schengen visa for business purposes, the following are required: an invitation letter from the Belgian company one is visiting along with their address and proposed travel dates, a certificate from one's employer allowing business travel, proof of previous trade relations if existing, business bank statements from the past 6 months, Memorandum and Article of Association in original certified copy, Trade License, Proprietorship/ partnership documents, statement of coverage of expenses by employer or partner company in letter or invitation.

When hiring new employees, business owners may request employees to sign a nondisclosure agreement to protect any valuable information they will have access to. Confidential information that is to be protected must be defined comprehensively. Confidentiality clauses may often survive termination of the agreement.

Funding Resources

As of 2012, the Belgian government had invested 2.24% of its GDP in research [2]. R&D tax incentives include: grants, payroll tax incentive for R&D staff, investment deduction/R&D credit, special tax regime for foreign executives and a special tax

incentive for patent income allowing companies located in Belgium to tax exempt 80% of the income generated by a patent or the improvement of a patent.

Significant intellectual property laws are available to protect innovation in the form of patents (20 year term of protection and possibly longer), trademarks, ownership of a design, plant breeders' rights as well as copyright and neighboring rights.

Infrastructure

Strategic research centers focusing specifically on innovation and its commercialization include IMEC and iMinds, as well as VITO. 30-40 active initiatives also exist, focusing on cultivating innovation, financing and networking opportunities for entrepreneurs.

VLAIO

VLAIO (Agentschap Innoveren en Ondernemen, or Flanders Innovation & Entrepreneurship) is a government agency, recently formed from the merging of IWT (the Agency for Innovation by Science and Technology) and the Agentschap Ondernemen. VLAIO's aim is to be a "one stop shop for enterprises" that provides entrepreneurial support as well as guidance on research, development and innovation.

IMEC

IMEC is a research institute, known globally for its research in several fields of nanoelectronics. Headquartered in the Flemish city of Leuven, it also has offices in the Netherlands, Taiwan, the US, China, India, Nepal and Japan. [3] The institute spun out of a microelectronics program set up in 1982 by the Flemish Government in order to keep up with developments in the field. Today, the institute has driven the semiconductor roadmap for more than 30 years.

iMinds

iMinds is a non-profit organization founded by the Flemish Government, originally as a research institute with a focus on ICT and applications of broadband technology. Today, the organization offers companies and other organizations support in research and development, also producing research on culture & media, a healthy society, energy, and sustainable mobility. [4]

VITO

VITO (*laamse Instelling voor Technologisch Onderzoek* in Dutch) is the Flemish institute for technology research, located in Donk, part of a municipality in Flnaders. The institute carries out research on a contract-basis, and develops products and processes within energy, environment and materials for public and private sector use. [5]

Research infrastructures funded In part or in full by the government include: BEGrid, Belgian Co-ordinated Collections of Micro-organisms, Belgian Nuclear Research Centre, Consortium des Equipements de Calcul Intensif, Cyclotron Research Centre at Louvain-la-Neuve, Enabling Grids fro E- sciencE, European Molecular Biology Laboratory, European Organization for Nuclear Research (CERN), European Portal on Research Infrastructures Database, European Southern Observatory, European Synchotron Radiation Facility, Europeana, GEANT, Namur scientific computing facility, Princess Elisabeth Antarctica, Réseau franophone des bibliothèques nationales numériques, Vlaams Supercomputer Centrum, World Digital Library.

Culture & Incentives

Culturally, the perception of the entrepreneur and the startup scene within government has risen to popularity within the past 10-15 years. Leo Van de Loock, an official at the Flemish Agency for Entrepreneurship and Innovation, noted that focus has began to shift from simply Research & Development, to spurring and increasing innovation, with the system and method of doing this becoming more complicated, and less linear. He added that several new and innovative companies are struggling to lengthen their life cycles despite initial success. [6]

Incentive-wise, the patent system is designed such that rights of intellectual property are included in the patent, and available for industrial intellectual property. A typical patent provides protection in the form of a legal title that allows the proprietor to give the right to a third party, for a certain time and in a particular territory, to make, use or sell his invention without his permission. An invention must be new, must involve an inventive step and must be capable of industrial application to be patentable. While the term of protection is 20 years, it may be prolonged in special situations.

Trademarks are also used to protect intellectual property; the property must be distinctive, lawful and available. Trademarks will often guarantee the right of intellectual property for up to 10 years. Beyond that, legislation on intellectual property allows for protection of individual designs and plant breeders' rights (with respect to exploitation of reproductive material of a plant variety in a limited area).

Demand

As of 2014, Ghent city has set a target to dedicate 10% of its annual ICT procurement budget to innovation. Belgian procurers also participate in the buyers group of the EU PCP (Pre-Commercial Procurement) projects, THALEA (Hospital East Limburg), PREFORMA (koninklijk instituut voor het kunstpatrimonium), SELECTforcities (Digipolis Antwerp) and in the EU funded PCP project CHARM (Department of Mobility and Works). In Ghent specifically, procurers participate in the EU-funded PPI (Public Procurement of Innovation) project, FIRED-UP on fire fighting vehicles, in the P4ITS networking project (Flanders region), and in the PPI4WASTE networking project that promotes Public Procurement of Innovation (PPI) on resource efficiency and waste management). Antwerp itself has a purchasing policy ('buy from start-ups program') that makes it possible for new companies without official products and services to take part in public procurement.

SMART@FIRE project is a group of procurers from different EU countries that is doing a joint procurement project under Belgian law to get smart ICT solutions for firefighter garments.

Government Programs

With respect to entrepreneurial capacity, several government programs have been implemented or supported. They fall under the following:

Human Capital

Belgium is ranked 17/190 for ease of starting a business. [7] Procedures to start a business are as follows:

I. Deposit at least 20% of the initial capital with a Belgian credit institution and obtain a standard certification confirming that the amount is held in a blocked “capital” account (takes 1 day, with no associated fee)

II. Deposit a financial plan with the notary, sign the deed of incorporation and the by-laws in the presence of a notary, who authenticates the documents and registers the deed of incorporation (takes 1 day; Fixed registration duty of EUR 25 + publication cost of EUR 174.90 + Notary fees around EUR 1,064 + notary's various costs (including file and administrative costs) of about EUR 300 (VAT excluded))

III. Register with the Register of Legal Entities, VAT, and social security at a centralized company docket (guichet-entreprises / ondernemingsloket) and obtain a company number (2 days, EUR 82.5 (registration fee) + EUR 55 (VAT registration))

In the past five years, the number of startups has shot up rapidly, as well as the proportion of the public intrigued by the idea of startups and entrepreneurship. In his interview, Mr. Van de Loock explained that the Flemish government’s problem now, is how to aid startups in growing past SME-size, as so many seem to stop once they are that big. It is however imperative that government does not intervene in the startup growth process, he said, as it does not want to get third-parties involved in companies, thereby decreasing founder control. Another issue he touched on was that startups tend to receive the initial funding they require (about 1-2 million euros), but are unable to find the larger amount of funding they really need to blossom. Government however continues to invest in incubators, additionally providing subsidies initial

research that startups carry out. Private incubators appear to springing up in addition to this, in Antwerp for example. [8]

Funding Resources

In order to make the economic environment more conducive, government is focused on helping startups get operating costs rights; hiring people is expensive, energy costs are quite high and so in order to increase the region's competitiveness, the barriers to commercialization are significantly lowered to ensure the threshold is not too high. [9]

Tax shelter for investors is available: a 45% tax reduction exists for investment in new shares of a start-up (or micro company) and a 30% tax reduction for investments in new shares of a SME or start-up fund. The individual/investor must hold the shares for 4 years, and there must be an investment threshold of 100,000 EUR or 30% shareholding in the start-up company. The start-up company may raise up to 250,000 EUR through the tax shelter regime.

Interest received on loans granted to a start-up through crowdfunding are exempted from withholding taxes and personal income tax. Additionally, a start-up company can benefit from a 10% wage withholding tax exemption on paid salaries, which is increased to 20% for micro companies.

The government itself has a few risk capital firms and supports some university risk capital organizations, encouraging business agents to get involved in seed investments, although large-scale investments are not popular. Platforms to facilitate contact between VCs and entrepreneurs are subsidized by the government, and some biotech and ICT firms have even extended VC relationships out of the country and in the U.S. Government is also in the process of trying to set up public procurement on a very

small scale, although not a lot of success has been had as the means to procure businesses are not as great as in the U.S. [10]

Infrastructure

Legislation surrounding rental and commercial real estate is fairly rigid; the tenant's benefit lies in the stability of his business activity (i.e. a lease lasting at least 9 years, and the right to renew the lease upon its expiry). Within 4 months of concluding a lease, the contracting parties must present a copy of the contract, signed by both, to the authority that collects lease registration fees in the area where the respective property is located. Every three years the lessee and lessor may ask a justice of the peace to review the rent, in which case the person requesting the review must demonstrate that a change in circumstances has caused the rental value of the premises to rise or fall by 15% compared with the amount stipulated in the contract.

Tenants may terminate their lease every three years by sending a registered letter to that effect or through notification served by a bailiff giving six months notice. Termination is also possible without any prior warning if an authenticated mutual agreement is drawn up or a statement to this effect is made to a justice of the peace. Landlords/those leasing property may also terminate the lease every 3 years after giving a year's notice.

Culture & Incentives

With regards to bankruptcy, legislation is such that a company can petition bankruptcy itself or bankruptcy can be petitioned by one or more creditors or by the public prosecutor. When applying for bankruptcy, the debtor's application must be

accompanied by a balance-sheet, a list of its employees and information about its customers and suppliers. Company directors must petition for bankruptcy within one month after the company fulfills all of the conditions for it. Personal liability may arise if the procedures are not initiated in due time. The bankruptcy order must specify the date when the company ceased to make payments, as well as the supervising judge, timeframe within which creditors must make their claims against company, and dates at which list of claims will be closed. After the court order for bankruptcy is released, a bankrupt company loses control over all its assets. Liquidators handle the liquidation process in Belgium, meeting creditor's claims, and distributing the assets of the bankrupt company to the benefits of its creditors

Demand

A ministerial circular encourages the federal public administration to apply public procurement clauses that facilitate SMEs' access to public procurement. These clauses: divide calls for tender into lots and resort to variants; establish proportionate requirements in terms of qualifications and financial capacity; consult SMEs in negotiated procedures without advertising; ensure verification and payment deadlines are met, and simplify administrative requirements regarding the documents and certificates to be provided.

Since 2008 there has been limited but noticeable progress in this area with the introduction of electronic portals for e-procurement and e-tendering.

Conclusions

Overall, government's relationship with entrepreneurs is indirect; it co-invests with other VCs in innovative startups, offering several types of subsidies as well as support to intermediaries that coach and help entrepreneurs, never directly participating in startup formation. [11] This may be due to a perceived notion of direct government participation as interference that would decrease founder company control. However, startups seem to stagnate at SME-level, most significantly due to a lack of large scale investment.

Despite Belgium's location in the center of western Europe, the startup scene observed is moderate compared to that seen in its contemporaries' cities of London, Paris and Berlin. Interviewees noted that that was, "simply the way it is", and that one of the biggest problems was that a big consumer market would be necessary. [12] With a population of 6.4 million in Flanders, and 11.2 in the entire country, this is difficult. Although Europe is fairly uniform policy-wise and cross-border expansion could be an option for companies, language, social systems, taxes, laws and wages differ, making it a long and complex process.

In the wake of Brexit, it remains to be seen what changes might occur in legislation that enables British talent to work in Flanders. However, as financial services may migrate out of London, there is some possibility of an influx of financial institutions, and with them, perhaps the budding of some fintech startups in Brussels.

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B. CORPORATE

Corporate involvement in innovation is increasing, with many innovation consulting firms existing, such as Verhaert Innovation and CREAX, advising ambitious companies and assisting them with integrating technology to deliver innovation to the markets. Usually this process of commercializing innovation is an organic one, heavily dependent on the entrepreneurs in question and their level of experience. [1] One notable player, is startups.be, a non-profit organization consisting of over 65 startup supporting organizations and businesses that together actively support tech entrepreneurs through coaching and training, incubation, acceleration, networking and pitching opportunities, as well as in providing expertise in relevant domains or financing. The organization aims not only to offer tech entrepreneurs easy access to the above, but to also stimulate collaboration and cross-fertilization between different startup players. [2]

Karen Boers, co-founder & managing director, noted that entrepreneurship has become more mainstream as compared to 5-10 years ago, making technology more accessible and cheaper, and also allowing people to spin out companies from almost anywhere. She also added that increased awareness about how realistic entrepreneurship actually is had created space for corporations and organizations alike to create communities in which entrepreneurs could connect, collaborate and rely on each other. This is a marked difference from five years ago, when successful startups would usually have to close local branches when moving to be closer to be funding in the US, which they no longer have to do. [3]

The demographics of entrepreneurs is not extremely diverse, with a majority of them leaving corporate work to either start businesses or give expertise when the risk is not low. Very few of these entrepreneurs are in or over their forties. This may be due to the Belgian social security system, which makes it harder and more expensive for the older population to leave a traditional career path at a company or firm. [4]

Deloitte, the multinational professional services firm, has a heavy presence in the region, with an Innovation Centre that focuses on young tech companies, encouraging open innovation and helping them develop their products and innovations.

As of 2012, company investments in R&D have totaled 2.75 billion Euros. [5] The region has been rated 5.6/7 for the extent of firm-level technology absorption, and 6.5/7 for availability of latest technologies. [6]

Conclusions

With corporations and organizations becoming more involved in the startup scene, investments are starting to flow in from serial entrepreneurs, who often get heavily involved not only in funding, but in mentoring too. [7] The communities formed have given entrepreneurs access to business angels and a strong support communities. In the case of non-profit organizations such as startups.be however, the startups they deal with still face many hurdles, the most significant being obtaining access to customers (a general distrust towards startups in compares with bigger, well-established companies still exists), as well as finding the right talent with the right skill set in order to put a team together. Many startups will postpone hiring and trying to do as much as possible with their original founding team, putting themselves at risk of over-

stretching themselves. This problem is compounded by the fact that Belgian employment laws make the cost of hiring and especially firing quite high, making it very hard to close down a payroll contract. [8]

Although sources and amounts of funding have increased, there remains great need for bigger European funds to commit investments in the range of €60-70 billion, irrespective of whether these funds are within Belgium or not. Organizations such as startups.be hope to help facilitate matching investors of this kind with Belgian entrepreneurs. However, as Ms. Boers noted, some of the biggest opportunities for growth also lie in the untapped Asian and African markets, and not necessarily just in the Western markets. [9]

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C. RISK CAPITAL

A large number of venture capital and private equity firms exist in the region, including Capricorn Venture Partners, Volta Ventures, Vendis Capital, and RSQ Investors. Additional firms include GIMV (1.5 billion under management), LIM (400 million under management), FundPlus, VIB Bio Ventures, Vesalius Biocapital (strongly supported by ING), and a number of government and family funds.[1] Private initiatives also exist, such as the Pulse Foundation, which is composed of entrepreneurial families, industrialists and business leaders seeking to help increase the sense of innovation and economic dynamism in Belgium. The Foundation provide money on specific conditions that incubators and/or startup aid organizations collaborate with entrepreneurs in a way that shows concrete results. [2]

Opinions on the existence of venture capital in Flanders differ, depending on the definition and context in which one perceives venture capital. One interviewee explained that while venture capital does absolutely exist in the region, it is not meant to be a replica of Silicon Valley style risk capital. Throughout Europe, he added, startup companies will usually depend on business angels, bank loans, family, and friends. If they do source seed money, it is usually to the tune of €5-10 million, and not €50-100, which would represent incredible risk and be incredibly difficult to source. With enterprises developing technologies for niche industry and not mass markets, return is not intended to be on the scale of Google, with most tech startups often being sold to larger firms. [3]

Another interviewee contended that there are no venture capitalist firms in Belgium, or at least not in the real sense. While investment funds exist that call themselves venture capital funds do exist, he explained, they are usually actually public funds with constraints, incentives and goals that are different from the average venture capital

fund. While some angel investors may come together to form funds, they often have very little capital to invest (e.g. €20 million for 10-12 companies, which would be equal to €2 million per company - compared to the €40-50 million a typical tech venture requires, this is severely inadequate). He went to add that many “venture capital firms” lack the necessary expertise to make companies global.[4]

Silicon Valley style private equity firms do not appear to exist, with some holding the view that banks should not be within private equity, as their clients bank with them to keep their money safe.[5] Considering how difficult it is to compensate for losses, this kind of risk capital is not favored. The European Central Bank has in fact imposed rules on banks preventing them from doing any substantial private equity business; at one point in time, the 4 major banks in Belgium had €2 billion in private equity - today they have €0, due to the high risk nature of the business.[6]

Groups that support innovation through grants include IWT (funds innovative projects of companies, research centers, organizations and individuals through assignments set by the Flemish Government), which donates about €300 million annually to innovative projects), the Brussels Institute for Research and Innovation (which offers a variety of financial aid programs for companies in Brussels, and in all regions of the country), EUREKA (a publicly funded intergovernmental network involving over 40 countries that enhances European competitiveness by fostering innovation-driven entrepreneurship in Europe)

Conclusions

The existence of risk capital in Flanders is debatable, and is highly dependent on how one defines it. If risk capital does indeed exist, then it appears that heavy risk capital

(i.e. making investments over €30 million or more in one venture) does not exist, perhaps due to the fundamental difference in the way Flemish VC firms and American VC firms run. Whereas in the US, VC firms may be funded by pension funds and endowments, Flemish ones are funded privately or by the government. Pension funds in the region are paid by the government from tax, and not invested in risk capital funds. All universities are also public, and therefore do not raise money or have endowments. Furthermore, European foundations are smaller and less wealthy, as charitable gifts are not tax-deductible. [7] On a more subtle level, government parties also tend to veer towards socialist views and view authentic venture capital as a form of capitalism. [8] The lack of capital may however not solely stem from a lack of funding firms, but also from a lack of sophistication of financial markets in comparison to the US and even Germany; while banks tend to give loans, there is no secondary market, leading to under-exploitation of possible financial instruments.[9]

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D. UNIVERSITY

The Technological movement started in Flanders in the early '80s. Prior to that, in the 1960s, Belgium witnessed spectacular growth, and Flanders in particular saw the influx of a lot of foreign investment. At the time, wages were low and workers highly qualified. [1] Then in the '70s, the first oil shock occurred, with ripple effects on the country. Economic policy did not adjust to conditions, and several industries, including textile and ship-building, collapsed completely. After the second oil shock in '78, things had worsened, and by '81, the Belgian government had devalued the Belgian Franc to regain competitiveness. Despite the relief this brought, the need for some change became obvious, and the Flemish government jump-started what they called the "Third Industrial Revolution", based on IT, biotech and new materials.[2] Technology drove innovation at universities, one of which - KU Leuven - has been ranked as the most innovative university in the world. [3]

Due to regional differences, R&D policy has shown a trend towards taking away authority from a federal level to a regional level, thus since late '80s/early '90s Flanders and Wallonia have been allowed to organize their innovation and science & tech policies themselves. Flanders therefore decided to organize everything with single agencies: one for science (fund for scientific research - VITO - solely for curiosity driven research), one enterprise and one innovation agency (the last two have been merged into an Enterprise & Innovation Agency) which develop instruments to foster collaboration between industry and academia. Additionally policies that give extra subsidies to companies when they work with universities have been put in place. [4]

The Flemish government has created a legal context in which universities are allowed to collaborate with companies (in the '90s, laws came into place allowing universities

to completely own intellectual property coming from public funding, and allowing them to take part in spinoffs or collaborate with spinoffs), and thus, since the late '80s, strategic research centers, such as IMEC, have been located on university campuses but are largely independent in terms of industry collaborations. This has led to many bilateral collaborations (patent portfolios at universities). In terms of research expenditure the Flemish region has been ranked above the OECD median.[5]

Flanders is home to some of the world's top universities, including KU Leuven (ranked 82nd in the world), the University of Ghent (124th), and Vrije Universiteit Brussel (194th). In 2012 alone, there were 7,091 university enrollments in STEM subjects.[6] With Belgium ranked number one in the world for the quality of its management schools in 2011, top management schools such as the Vlerick Business School are launching dedicated Master's programs in Innovation and Entrepreneurship.[7,8]

In general, campuses are less entrepreneurial than their equivalents in the US, perhaps due to the fact that independent innovation ecosystems have not existed for very long. With a traditionally more corporate landscape, as well as many small family-owned businesses, the presence of high tech innovation and entrepreneurial ecosystems is still growing rapidly, extending to universities to stimulate entrepreneurial activities. KU Leuven is an example of this, surrounded by about 300 high tech companies and the research institute, IMEC.[9]

KU Leuven in particular is home to the Leuven Community for Innovation-driven Entrepreneurship (LCIE), a student-driven initiative looking to bring together a small venture/seed fund together (500,000-1 million Euro) within the coming months and hand over its reigns completely to students. The Community was created to form a student-driven innovation ecosystem, for example leading to law students creating

YouStart, a legal aid startup that gives advice to student-entrepreneurs on campus. LCIE has so far been able to marshal 4 million Euros in seed money from business angels and venture capital.[10]

In terms of the pathways to commercializing their business ideas, students at KUL come to entrepreneurship in a myriad of ways, made aware through groups such as LCIE of what it takes to build a successful company in terms of timing, team work and selling at the right value. The mode of thought is that students that need to be well-prepared; the model of simply trying and failing and starting all over again is not popular - piloting startups is encouraged before truly setting up. In short, solid incubation before going official is strongly encouraged. This is illustrative of the wider viewpoint in Europe that credibility as a value creator is greatly diminished and not much capital is raised by a simple “try and fail” mindset. “Think before you act” mindset is more encouraged. One example given in interviews, was a biomarker company that recently achieved success after 8 years of incubation and 3 years of patent portfolio formation.[11]

Entrepreneurial campus communities such as LCIE provide working spaces, mentors and a recognizable, university-approved brand. LCIE in particular coordinates with the ICT department, libraries, technology transfer office, and alumni services, working with student organizations. Student bodies are involved in policy-making and therefore importance is placed on them liaising with all the above entities. Student have also created their own “PIP” - a course developed by a student and designed by Aalto in Finland, through which interdisciplinary teams including lawyers, engineers, and finance students, work together to bring a project to life, learning how to interact. As KU Leuven is a research-intensive university, the hope is that students are inspired to pursue tech-heavy innovation.[12]

Student entrepreneurs are less focused on starting enterprises that would grow to the size of Facebook, Google or Twitter; such ventures would need to leave the country, as the 11 million-strong Belgian market is not nearly big enough. Belgium has long been, “a country of bankers and engineers”, and therefore a majority of companies and startup ventures are business-to-business and are hardly consumer-driven, which would make it easier to grow to mammoth size. As an example, the largest Belgian company in the region is Solvay, and it is still business-to-business oriented.[13]

Conclusions

Universities in Flanders, KUL being a notable one, appear to be very strong when it comes to innovation, and technology transfer; however there still exists fairly conservative climate amount students and the general population with regards to entrepreneurship. Typical university students have made their career choices around 13 or 14, and by the time they graduate from university, the societal image that had informed their career choices has already changed. In KUL's case, this is what prompted the creation of LCIE, to keep up with society's changing innovation landscape.[14]

Despite student interest in entrepreneurship, the prevailing mentality is still to find a good job. At an innovative university like KUL, students number in the thousands, but student entrepreneurs number in the tens.[15] Student entrepreneurs themselves struggle with having adequate time to spin out business ideas - 6 months to a year is often not enough time, as time taken to prototype, source financing and launch the business is time-consuming.[16] For this reason, entrepreneurship groups at universities are trying to reach out to first degree students as they often stay on for at least a Master's and thus have a longer time to access all the entrepreneurial resources provided. It will still take several years to be able to influence students' mentality to the point that a visible difference is observed.

Looking toward the future, universities are aware that there may be some austerity from the government to balance out the heavy subsidizing that has recently occurred. They are looking to produce more student role-models, and for creative ways to combine entrepreneurship with traditional degrees to decrease societal pressure on students to work in traditional sectors. [17] An increase in cross-regional collaboration with universities in Wallonia is also expected, as activities are already starting to cross borders.[18]

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E. ENTREPRENEUR

According to the Knoema Adult Population 2015 survey, 10.85% of the Belgian population has entrepreneurial intention.[1] Compared to the startup scene in various American hubs, the startup scene in Brussels and Flanders is a lot smaller, with a definition of entrepreneurship that is mainly technology-based. Due to the small population, there are not as many people to target as consumers; thus if a company wants to go big, it often needs to take into account other countries to expand to.[2] To succeed cross-regionally, startups often need to be careful to avoid becoming entrenched in one cultural way of thinking that affects their products and services. [3]

Founders usually will not drop out of school to pursue startup ideas, getting degrees initially first, as risk tolerance is generally low and the cost of education is low anyway. [4] The Flemish Action Plan for Entrepreneurship Education has been in place since 2011, driving the implementation of a number of initiatives supporting entrepreneurship. It has since been replaced by a wider Policy Paper on Education covering 2014-2019, which incorporates entrepreneurship education within a wider set of priorities. Entrepreneurship skills are explicitly recognized as a cross-curricular objective in secondary education.

In 2013, 14,897 new businesses were registered in the whole of Belgium.[5] By 2014, the nascent entrepreneurship rate had reached 2.93%.[6] For 2016, the top startups in the country included Twoo, Woorank, Checkthis, DataCamp, and Moovly.[7] The previous year saw Evolved Analytics, Foodpairing, Visupedia,, REstore, and Ontoforce named among the most popular and innovative startups.[8]

Mentoring/Accelerator Programs

Mentoring programs include: Startup Weekend Brussels (powered by Google for entrepreneurs), SO Kwadrat, Young Professionals Mentorship Program (set up by the American chamber of Commerce in Belgium), Deloitte Innovation Centre in De Hoorn, Leuven, the Positive Entrepreneurs Network, The Indus Entrepreneurs Brussels, and Professional Women International.

Coworking spaces are quite common in the country - Beta Cowork is a popular company offering shared office covering space in Brussels, for professionals and entrepreneurs, and several other covering spaces can easily be found on websites such as coworkingbelgium.be

Startup accelerators include: Telenet Kickstart/Idealabs, Startit KBC, and iMinds, which also provide working spaces. One interviewee had the opportunity to network with other potential entrepreneurs and be immersed in the startup scene through iMinds, which also encouraged participants to look beyond Belgium.[9] Programs such as Vlerick Business School's 'Boot 2010' and Plug & Play/GoGlobal and GoWest, also give entrepreneurs subsidies to go to Silicon Valley for an Immersion Week. For the entrepreneur mentioned above, a GoEast program was available, enabling his startup to go to Singapore, with a year of free office space.[10]

Incentives & Awards

Several innovation prizes in the country exist, including the Bizidee prizes for business innovation, the IBM Innovation Award, the ECOTROPHELIA Food Innovation Prize, the EU Prize for Women Innovators, Accenture Innovation Awards, Tech Startup Day Awards and the First Awards for Innovation in Retail Start-Ups. Popular competitions

include the CleanTech Challenge, the YouthStart European Competition, and the Battle of Talents.

Hurdles

Some of the hurdles startups face tend to include: bureaucracy and a high threshold to starting up a business, the high taxes that must first be paid, and the impression that the government does not appear to understand the open source business model, in the case of software-based ventures. [11] For startups whose customers are high tech firms and multinational companies with Research & Development centers abroad but headquarters in Belgium, doing business take a while. These multinational firms, such as IMEC, tend to take a long time to roll out contracts.[12] Additionally, one interviewee found that the startup process was much easier while he was in university than when he was out and had less access to resources. [13]

Expansion and Growth Style

Compared to Silicon Valley startups, Flemish startups follow a less generic growth method. iText for example, founded by Bruno Lowagie, followed its own model to make profit, not primarily seeking a valuation first and prioritizing its technology building over everything else. The startup's approach has also mainly been to obtain profit first. On expanding to the US, revenue jumped to \$300k and then to \$700k. After initial bootstrapping, the company was then sold to a South Korean firm with Lowagie staying on the new firm's board. [14] The company is unusual in that it has expanded almost seamlessly out of Belgium, with the US, India, China, Japan and Singapore among their visitors. Each country posed different challenges (e.g. long sale

cycles in Japan, illegal software copying in China), but simply expanding to Asia and having a presence there has doubled Asian revenue. [15]

As noted above, expansion outside of the country has been achieved with varying success. Despite Belgium's location, many entrepreneurs find that even countries as nearby as Germany, have different mannerisms, culture and way of life, as well as a language barrier. Each country also has its own tax and administrative systems, which presents another hurdle. In the case of mechanical engineering startup Diabatix, however, collaboration with partners in the Netherlands or English-speaking countries has been fairly straightforward due to the similarity in language.[16] Language barriers can also be overcoming by collaborating with firms based in a target country.

Obtaining Venture Capital

In the case of Mr. Lowagie, he had never encountered angel investors, although he had heard of BAM (Business As Mission) in Belgium. He has received some VC funding in the US from the US operations of Bain and North Bridge, and has a good relationship with the Bain CEO, which has helped as they have a mutual understanding of his company's goals. [17] Diabatix, founded by Lieven Verweken and Joris Coddé, has been postponing VC input for as long as possible to increase the value of the startup. [18]

Government-Entrepreneur Relationship

Government policies give a tax exemption on software patents, and for one entrepreneur this led to a tax reduction from 31% to 2%.[19] The application of this policy is a complex matter in the case of open source software, however. From some entrepreneurs' perspective, although government initiatives can be helpful, there is the

impression that they tend to benefit large corporations more often.[20] For iText in particular, the government does not have a compliance manifesto, making it easy for other companies to steal the venture's software. One other difficulty brought up in interviews has been the fact that the government's personal unemployment allowance after PhD stops when one starts their own business, which could be a deterrent for entrepreneurs. [21]

Trends

Recently, software ventures have opened up to the option of selling open source software to the government, with organizations such as startups.be currently helping in the lobby effort to persuade government to buy from startups without the lengthy process currently required. [22] Areas seeing rapid growth include robotics, Artificial Intelligence, healthcare tech, and renewable energy to an extent.[23]

Public Perception

Public perception of entrepreneurs is mixed, although outlook is generally increasingly positive. Many people have heard horror stories, and will thus consider the many risks and funding necessary, as well as possible conditions and eventualities beyond one's control. However family members and friends are usually supportive of entrepreneurs once they are convinced. [24] Professionally, it is often difficult for an entrepreneur to find acceptance especially if she/he has had a startup and has failed. New staff often worry about how working for a startup that could fail would affect their job prospects afterwards. [25]

Conclusions

The startup scene is growing rapidly. However there are still many next steps for entrepreneurs, and as one interviewee put it, more of them might simply need to leave their comfort zones, as stable and predictable job sectors can often stifle employees' entrepreneurial potential. In the case of specific software-specializing startups, the opportunity to work symbiotically with integrators would be especially helpful in preventing illegal use of copyrighted/patented software.[26] Smaller startups are often vulnerable to being bought up by bigger corporations, although the hope is that they will eventually be strong enough to compete on the international front against major players. [27]

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V. RECOMMENDATIONS

Government

With respect to government, a significant issue appears to be the lack of large-scale investment in SMEs. Although VLAIO has been set up almost exclusively to help entrepreneurs set up enterprises, the amount of funding available to each of these entrepreneurs is limited and simply not on the scale needed to achieve to break past a medium-sized enterprise at best. I would recommend that the Flemish government look into strategies that would enable entrepreneurs to be linked with funding, perhaps from high net worth individuals in the country (by increasing tax benefits for larger investments), or perhaps from foreign investors (by again offering tax benefits or advertising possible growth opportunities for foreign corporations through collaborations with tech startups in similar fields).

I would also recommend that government look into loosening legislation of hiring and firing, as this appears to hamper startups' willingness to hire staff unless they are absolutely pressed to, often times sacrificing their ability to succeed.

Corporate

Corporate involvement in startups, while present, could be far greater. I believe it would be beneficial to both larger corporations as well as startups if they partnered up to solve problems together, merging their unique skill sets (corporations already having an established market and consumer base, and entrepreneurs wielding ground-breaking solutions to problems corporations may be having). Not only would corporations be

able to form business partnerships with startups, but they might also be inspired to inject more entrepreneurial culture into their workplaces.

Risk Capital

The risk capital scene currently in Flanders, although active, might need to expand its view on venture capital. Due to a high risk-aversion, the level of investment startups need to go global is nearly impossible to reach. Engaging finance professionals as well as high net worth individuals in establishing full-time private equity and venture capital firms that invest not simply to give away money, but to actually make a profit (as seen in Silicon Valley), might be one step forward.

Additionally, transforming public perception of risk capital as the epitome of crass capitalism would also be important on shifting investor opinions. Documentaries, media articles, social media and even pamphlets on the variety of existing venture capital firms (such as those funding cancer drug trials, or socially impactful business) could be one way to improve the general public's view on what capital involves.

University

The major issue confronting universities appeared to be student engagement levels with the entrepreneurship community. One recommendation would be to look into reaching out to students earlier on in their at time at university, or perhaps even just before they arrive at university, by sending them informational guides/pamphlets about the university startup scene as well as entrepreneurial resources. Additionally, exploring the viability of developing a 'minor' program in Entrepreneurship &

Innovation, similar to that found here at MIT, would be a useful way to offer students the option immerse themselves in entrepreneurship without feeling like they would have to stop studying a more traditional degree. I would also recommend forming solid alumni entrepreneur networks, so that current student entrepreneurs can benefit from having access to and mentorship from former students who have become successful entrepreneurs.

Most importantly, I believe the best way to increase student engagement, would be to start engaging older children in their later years in secondary or high school (through presentations, workshops, and entrepreneurship extra-curricular clubs), so that at the formative stages when they begin to consider traditional professions such as medicine, law, and engineering, they are aware of the possibility of extending these to entrepreneurship.

Entrepreneur

With respect to entrepreneurs, it appears that there are several barriers to commercially launching enterprises, one of which is the immediate cut in the unemployment and post PhD stipends that founders experience once they start to work on a startup and register a business. As startups do not immediately provide positive cash flows, one recommendation would be that government give special stipends to entrepreneurs for a short time after they have just launched a new venture and have no real sources of income.

Additionally, tech startups in particular seem to be suffering from a lack of compliance policy to help combat competitors stealing or using their software without appropriate

licensing. One solution to this could be the introduction of formal legislation on compliance with licensing.

Another issue that became apparent was a perceived lack of understanding on the part of government funding agencies of ideas that are more unique or niche, leading to a lot of skepticism and difficulty for founders to source funding for less mainstream ideas. To combat this, I would recommend government looking into appointing various current or former entrepreneurs as industry experts within its innovation and entrepreneurship agencies as well as its funds. These individuals would play active roles in the processes by which startup ideas are approved for funding and aid, to ensure that prospective entrepreneurs with genuinely promising ideas are not turned away.

Lastly, information on available tax cuts for entrepreneurs does not seem to be widely available, leading to a lot of founders struggling with high tax rates. I would therefore recommend that government makes information about tax-cutting, as well as other money-saving strategies related to tax and wider legislation, widely available, in order to lower the threshold to operating that so many entrepreneurs face.

VI. FUTURE RESEARCH & ENGAGEMENT OPPORTUNITIES

Although carrying out the interviews that I did afforded some insight into the Flemish innovation ecosystem, I would have liked to do more interviews with individuals in each stakeholder group - especially within Corporate, as I think there are more facets to the relationship between Flemish startups and corporations that I was able to capture in the time that I was there. Additionally, I would have liked to carry out more interviews and research into the Flemish risk capital scene, as there was some discrepancy between stakeholders on the state of risk capital in Flanders.

In carrying out interviews, I sought to focus on one region in Belgium. What would be interesting as well, however, would be to investigate whether there are smaller regional differences with Flanders, to understand if important decisions are made at more of a local level. As far as I could see, decisions appeared to have been made at the federal level, but it would be interesting to see whether or not this is actually the case.

In conclusion, although Flanders does appear to have some issues with its ecosystem, and might not exactly be comparable to Silicon Valley, it does have a functioning innovation ecosystem, which it is actively working on improving and expanding. It is also worth noting that the region has done comparatively better than its southern counterpart, Wallonia, which might in fact benefit far more from a REAP experience. In the future, I would be very interested in working on exploring the Wallonia innovation ecosystem in-depth, to better understand the concept of innovation there, its current stakeholders, and what gaps lie within its innovation ecosystem.

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Leo Van de Loock works at the Flemish Agency for Entrepreneurship and Innovation, a government agency promoting entrepreneurship in Flanders.

3. Boers, Karen. Interview. 4 July 2016.

Karen Boers is the Co-founder & Managing Director of startups.be, a non-profit organization consisting of over 65 startup supporting organizations that together actively support tech entrepreneurs through coaching and training, incubation, acceleration, networking & pitching opportunities and providing expertise in relevant domains or financing. The organization aims not only to offer tech entrepreneurs easy access to the above, but to also stimulate collaboration and cross-fertilization between different startup players.

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Herman Daems is the president of the Belgian banking group Fortis, as well as the Chairman of the Board of Directors of the KU Leuven. He is an economist and emeritus professor at the University of Leuven, and was formally president of the Pulse Foundation - a private initiative composed of

entrepreneurial families, industrialists and business leaders seeking to help increase the sense of innovation and economic dynamism in Belgium.

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Jean-Jacques Degroof is an MIT alum (MS - Sloan Fellow 1993, Phd - Management Doctoral 2002). He later worked under Prof. R. Lester at the MIT Industrial Performance Center at the Local Innovation Systems project, examining the impact of universities on local economies. His Ph.D thesis focused on spinning off academic ventures outside high tech entrepreneurial areas. He currently shares his time between Brussels and Madrid, lecturing regularly, mentoring young candidate entrepreneurs and working in venture investment. He has helped launch and grow several companies in the United States, such as Circle Lending, Experion Systems, Forerun Inc., Seahorse Bioscience, Flexplay Inc., Holy Bagel, Leader Bank, Lyf harbor (now Vestmark), ZipCar and Avedro. He is a founding member of the Hub Angel Group, and has also helped to launch and grow Softkinetic and Bone Therapeutics in Belgium. He sponsored a Spanish team to take part in the MIT Global Founders' Skills Accelerator (GFSA) in 2014, and is sponsoring Hacking Arts at MIT and the Creative Arts Competition (stARTup). He created the Mary Rowe Fund for Conflict Management at MIT last year, and is a member of the Corporation Visiting Committee for the Sloan School of Management. He is also a co-founder of MISTI Belgium.

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Wim Fyen is an innovation manager at KU Leuven, helping researchers to bring their research to the market. He is also founder of the Leuven Community for Innovation-driven Entrepreneurship, an initiative at KU Leuven with the aim of integrating entrepreneurship with higher education and helping entrepreneurial students to grow and achieve their goals.

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Jonathan Chu is an MIT alumnus (BS, Computer Science & Electrical Engineering 1998-2002, Masters in Computer Science, 2002-2003), currently working in Brussels as Head of Restaurant Operations at Take Eat Easy, a food-tech company aiming to connect restaurants with consumers in an eco-friendly and efficient manner.

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Bruno Lowagie is a Belgian entrepreneur and founder of iText, a technology startup that has successfully spun out of Belgium and expanded to American and Asian markets. He has won several awards, including Deloitte's Fast 50/Fast 500, and the Most Promising Company of the Year 2014 from the Belgian-American Chamber of Commerce.

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Lieven Vervecken is the co-founder of Diabatix, a startup pioneering new design techniques in cooling. He recently completed his PhD in Mechanical Engineering at KU Leuven.

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