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Financing for new technology-based firms in Brussels

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Hoe jonge technologiebedrijven in Brussel zich financieren

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AUTHOR'S NOTE

Regional research projects supported by Innoviris and the Office of the Secretary of State for Scientific Research for BCR between 2013 and 2017.

Introduction

- 1 New technology-based firms (NTBFs) are young independent companies created with an aim to make use of a technological invention or innovation [Little, 1977]. NTBFs attract attention for two reasons. Firstly, they play a key role in the materialisation of new technologies and innovations among products and services [Shane and Venkataraman, 2000]. Secondly, they contribute to the growth of the economy and employment [Acs, *et al.*, 2009].
- 2 The website Startups.be, a private sector stakeholder, estimates that there are 395 active NTBFs from all sectors and years of creation in Brussels-Capital Region (BCR). According to the same website, approximately 50 NTBFs are created each year in BCR. In terms of employment, the website indicates that 82% of these NTBFs have less than 10 employees, 14% have between 10 and 50 employees, and the remaining 4% have more than 50 employees. These statistics allow an estimation of 2 500 to 3 000 direct jobs, while each job created by these NTBFs generates on average five indirect jobs in the service sector in the same economic area [Moretti, 2012]. In total, these NTBFs are

therefore the driving force behind an ecosystem of 15 000 to 18 000 workers in Brussels and its outskirts.

- 3 However, the development of NTBFs is not a simple process. They endure considerable research and development costs whereas the technological complexity and the uncertainty regarding their viability may put off investors and limit the available funds [Veugelers, 2011; Colombo and Grilli, 2007]. This situation is amplified in Europe where entrepreneurial capital is less available than in the United States [Revest and Sapio, 2012]. The public authorities are aware of this situation and intervene by supplementing private financing [Cantner and Kösters, 2012].
- 4 BCR is a typical example of an interventionist European region for three reasons. Firstly, according to the Global Entrepreneurship Monitor [2015], Belgium is an average entrepreneurial ecosystem which nevertheless stands out in terms of commercial and legal infrastructures, entrepreneurial finance and support and pertinence of government policies. Secondly, as regards innovation, the Region has universities, higher education institutions and research centres in its territory, which make it a Strong Innovative Cluster [Stockholm School of Economics, 2011]. Thirdly, for several years, BCR has equipped itself with financial instruments intended for NTBFs. Recently, the regional government has reaffirmed that it wants to make Brussels the “Belgian and European capital of the spirit of entrepreneurship and innovation” [Brussels regional government, 2014: 21], while the 2016-2020 Regional Innovation Plan confirmed the continued increase in budgets dedicated to these schemes [Government of the Brussels-Capital Region, 2016; Government of the Brussels-Capital Region, 2012]. This aid is used frequently during the first stages in the development of NTBFs [Bozkaya and van Pottelsberghe de la Potterie, 2004].
- 5 Nevertheless, despite these efforts, the complexity of the regional system is often underlined [Government of the Brussels-Capital Region, 2012]. Furthermore, a recent article from the specialised website Digimedia pointed out the ongoing difficulty for entrepreneurs to move between the schemes.
- 6 This article allows an understanding of (1) how NTBFs in Brussels obtain financing and, particularly, (2) how they use public aid. Our objective is to examine how entrepreneurs make use of the existing schemes and to make recommendations to improve the functioning.
- 7 In order to do this, we studied 38 financing events in 10 NTBFs referred to as “financing rounds”, by comparing the explanations of entrepreneurs with those of the public stakeholders which provide them with aid. We thus systematically identified the reasons for their choices and the implications, as well as the role played by grants, loans and public funds. Finally, we organised a focus group with stakeholders in the field regarding our results in order to propose recommendations to the regional authorities.

1. The financing of new technology-based firms

- 8 This section summarises the elements from the literature concerning the financing of NTBFs. First, we present (1) the financing options for NTBFs, (2) the evolution in their accessibility during the development of the company, (3) the difficulties which may arise in this process and (4) the rationale behind the resulting public intervention.

1.1. Many financing options available

- 9 Internal and external funds are available to NTBFs for financing. Internal funds include revenue from company sales and the initial capital provided by company founders. Once the internal financing has been used up, NTBFs have access to three categories of external funds: capital, debt and grants [Atherton A., 2009]. Figure 1 presents a categorisation of these sources of funds. We then present capital and debt before introducing grants.

Figure 1. Classification of sources of funds intended for NTBFs

- 10 The first source of funds is external capital. These funds differ according to whether or not they lead to a major change in governance by impacting company management or the make-up of the board of directors. The most frequent type of financing is money from family and friends of the entrepreneurs, or *Friends, Fools and Family* (3Fs) [Atherton A., 2009]. These funds help to support the first stages of the activity and do not change the governance of the company. In contrast, NTBFs may also receive support from investors, which include Business Angels (BAs) and Venture Capitalists (VCs). BAs are often former entrepreneurs or wealthy company managers who wish to share their experience with NTBFs by investing and getting actively involved [Mason, et al., 2016]. BAs are the leading source of entrepreneurial capital in the world and their numbers are increasing steadily in Europe [Manigart, et al., 2014; EBAN, 2013]. VCs are professional investors who are active in public or private funds and are sometimes specialised. Alone or as a group, they invest the money of their shareholders with an investment horizon of three to seven years according to the sector and the maturity of the project. Once the investment has been made, they provide strategic advice or help to attract new investors. BAs and VCs both impose certain rights such as being able to appoint or replace the director and to sit on the board of directors [Gompers and Lerner, 2006].
- 11 In addition to capital, NTBFs may also request bank loans or public loans. However, this type of financing requires guarantees and a predictability of financial flows, which are often lacking, making it rare in the first stages.

1.2. A sequential and progressive financing process

- 12 In reality, these first two sources of funds are not accessible simultaneously, but sequentially in the course of the successive “financing rounds” [Harrison, 2013; Berger and Udell, 1998]. During this progression, which is sometimes referred to as a “financing escalator”, the nature of needs and the amounts of money evolve. We are able to distinguish three phases of development.
- 13 Firstly, there is the research phase during which the NTBF has not yet been officially created. The activities involve research and development in order to define the entrepreneurial project and analyse its feasibility. This phase is most often financed by the 3 Fs or non-core activities such as the use of development software in order to carry out consultancy missions.
- 14 Secondly, the start-up phase covers the creation of NTBFs until the first sales. The entrepreneurs develop and test prototypes in order to end up with a marketable version of their product or service. This first proof of viability may allow them to attract BAs.
- 15 Thirdly, the launch phase begins with the first sales and is intended to consolidate and develop the commercial activity. If self-financing becomes a possibility, NTBFs may also turn to VCs to accelerate their growth and/or banks to support their cash flow [Cumming, 2010; Gompers and Lerner, 2006].

1.3. A sometimes defective process

- 16 Unfortunately, things are not always harmonious. Gaps may appear in the financing process. These difficulties may be due to delays in development, the necessity to revise the strategy of the project or a difficult climate, which prompts investors to demand more proof of viability before intervening [North, et al., 2013], as illustrated in figure 2 [Manigart, et al., 2014].

Figure 2. The appearance of gaps

Source: [Manigart et al., 2014]

- 17 NTBFs are therefore in danger and, with them, the local socio-economic repercussions. The public authorities therefore react by supplementing the private offer with grants, public guarantees, loans and capital [Grilli and Murtinu, 2015]. While their methods differ, all of these schemes have the objective to help NTBFs move towards financial autonomy [Autio and Rannikko, 2016]. In the special case of grants, this aid is allocated to NTBFs with no obligation to reimburse or to transfer ownership. Their amounts range from a few thousand to several hundreds of thousands of euros. These grants may serve to finance expenses related to research and development or staffing activities. In the case of Brussels, the strategy for this intervention and its methods are detailed in the following section.

2. Brussels regional intervention

- 18 In BCR, the Regional Innovation Plan (RIP) oversees the action of stakeholders in charge of support for Research, Development and Innovation (RDI). In concrete terms, the RIP is in keeping with the European objective of 3% of the GDP devoted to RDI activities, 1% of which is financed by the public. Let us point out that, despite the efforts made for more than 10 years, this objective has still not been reached, as only 1.5% of the GDP was devoted to RDI in 2006 and 2013, in particular due to low private investment [Government of the Brussels-Capital Region, 2016].
- 19 Through the RIP, BCR intends to adopt a strategy of intelligent specialisation with an aim to “reinforce its positioning in the segments and niches which correspond to the strengths of its stakeholders and have potential for economic and employment activities in the service sector as well as in the products sector” [Government of the

Brussels-Capital Region, 2012: 4]. In 2012, the decision was therefore taken to target investments in the areas of personalised medicine, green economy and digital economy [Government of the Brussels-Capital Region, 2016; Government of the Brussels-Capital Region, 2012]. In concrete terms, the actions proposed by the RIP are centred on four areas: (i) improving the innovation chain, (ii) supporting new types of innovation and new RDI stakeholders, (iii) improving communication and awareness-raising regarding RDI, and (iv) ensuring wider, participative and efficient governance of the research, development and innovation system.

- 20 In operational terms, BCR proposes six types of aid: grants, repayable advances, loans, bank cofinancing, convertible bonds and venture capital. This aid is managed by several stakeholders whose interventions are summarised in table 1.

Table 1. Public aid intended for NTBFs in Brussels

	Grants and repayable advances		Loans, cofinancing and bank guarantees		Convertible bonds and venture capital	
	Amounts	Number of interventions per year	Amounts	Number of interventions per year	Amounts	Number of interventions per year
Bruxelles Economie Emploi	Between €2 500 and €25 000	NA				
Innoviris	Between €50 000 and €500 000	Between 40 en 50				
Finance.brussels			Maximum €200 000	Between 0 en 5	Between €50 000€ en €500 000€	Between 20 en 30
University funds					Between €1 000 000 and €2 000 000 throughout the participation	Between 0 en 3

- 21 The four main financing stakeholders are therefore:

1. The Ministry of the Brussels-Capital Region, which intervenes directly to support companies through its “Brussels Economy and Employment” unit. This unit proposes grants which are addressed to all companies in Brussels, including NTBFs, and cover the hiring of staff, the realisation of consultancy missions and export activities. There are eight grants available to SMEs, but unfortunately we do not have the data to allow us to estimate the amounts distributed annually.

2. The Brussels Institute for Research and Innovation, Innoviris, which offers different grants and repayable advances aimed at promoting academic research results and carrying out industrial research projects, experimental development and strategic innovation plans. In 2016, the analysis of the Innoviris activity report allowed us to estimate that €14 000 000 in funds were allocated to NTBFs [Innoviris, 2016].
 3. The group finance.brussels, which includes seven funds aimed at financing companies in Brussels. In particular, these funds propose various financing solutions such as loans, guarantees, bank cofinancing, convertible bonds and venture capital. In 2015, the analysis of the group's activity report allowed us to estimate that €10 000 000 in funds were allocated to NTBFs [Finance.brussels, 2015].
 4. University funds, which are financed by universities and public and private stakeholders, with an aim to invest in NTBFs originating from universities. In Brussels, these four funds have a right of “first refusal”, which means that the entrepreneurs who wish to use technology which belongs to the university must present their projects to the funds in order for them to invest. In total, we estimate that the collective capital of these funds amounts to 100 million euros.
- 22 In addition to these stakeholders, there are many private stakeholders: banks, investment funds, crowdfunding platforms, etc.

3. Methodology

- 23 The analysis of the financing of NTBFs was carried out using a qualitative research strategy based on case studies. This choice is recommended for the in-depth study of longitudinal phenomena and for answering “why” and “how” research questions [Yin, 2013; Bryman and Bell, 2011]. In operational terms, we studied the progress of financing rounds in ten NTBFs by focusing on the role played by public stakeholders in these events. In this respect, we define a financing round as an attempt – considered as a single effort by the entrepreneurial team – to obtain external funds in order to support the launch or the development of company activities. The sub-sections below present our methodology, which attempted to meet the quality criteria proposed by Miles et al. [2014], i.e. confirmability, reliability, authenticity, transferability and practical direction.

3.1. The sample

- 24 Our sample of ten NTBFs, presented below in table 2, was established in coordination with the Brussels institutions providing support and financing, based on four criteria: (1) was created after 2008, (2) contributes to presenting sufficient diversity in the financing process in terms of amounts raised, sources of funds requested and use of public funds (3) contributes to presenting a mainly ICT/Web sample and, (4) if active in the area of health, does not market a product involving the realisation of clinical trials.

Table 2. Description of the sample

	Sector	Number of rounds	Total raised (k€)	Share of public money (%)	Share of private money (%)

NTBF 1	ICT/ Web	6	1 339	56%	44%
NTBF 2	ICT/ Web	5	3 593	52%	48%
NTBF 3	ICT/ Web	3	684	33%	67%
NTBF 4	Other	5	1 970	52%	48%
NTBF 5	ICT/ Web	6	1 269	65%	35%
NTBF 6	Other	3	574	97%	3%
NTBF 7	Other	5	9 716	49%	51%
NTBF 8	ICT/ Web	3	631	97%	3%
NTBF 9	ICT/ Web	2	289	55%	45%
NTBF 10	ICT/ Web	4	593	90%	10%
TOTAL		42	20 658		

- 25 While we are not aiming for statistical representativeness specific to quantitative studies, the heterogeneity of the sample nevertheless allows us to claim a theoretical representativeness of the NTBF financing phenomenon in Brussels [Bryman and Bell, 2011].

3.2. Data gathering and case analysis

- 26 The data were gathered with the help of 47 interviews with entrepreneurs, public stakeholders providing support or grants, and public or university VCs, as well as 72 written sources such as financing requests, business plans, analytical notes and annual accounts. Their analysis took place in three stages.
- 27 Firstly, a chronological reorganisation to identify the successive financing rounds, their progress, the nature of the need and their related stage of development. We have distinguished eight sources of external funds among three main types of funds: “equity” with (1) the 3 Fs, (2) BAs and (3) private, (4) university and (5) public VCs, “debts” with (6) private and (7) public loans, and (8) “grants”. Figure 3 illustrates this classification.

Figure 3. The eight sources of external funds

- 28 We point out here that the private loans covered by a public guarantee were considered as grants: a bank loan of €100 000 guaranteed at 50% was therefore encoded as a €50 000 loan and a €50 000 grant. Furthermore, due to their mainly public financing and affiliation with universities, university VCs were considered as public funds. Secondly, we have analysed each round in order to identify the motives of entrepreneurs. Thirdly, we have made a comparison of these motives between NTBFs to evaluate the frequency and thus the significance.

3.3. A focus group for recommendations

- 29 We also organised a focus group with 11 participants who work in six regional financing and support institutions in order to come up with joint recommendations intended for the Brussels authorities [Eriksson and Kovalainen 2013, Bryman and Bell 2011]. This focus group was aimed at answering the central question: “How can public financing intended for new technology-based firms in Brussels be optimised?” The session had three parts: (1) an introduction regarding the context and methodology, (2) a presentation of results and (3) an exchange between participants regarding the needs of entrepreneurs in the area of financing, the schemes to implement in order to meet their needs and the types of stakeholder in charge of managing these schemes. The recommendations for the regional authorities resulting from these exchanges are presented in section 7.

4. Financing per phase

- 30 Here we describe the successive financing strategies during the start-up and launch phases. The research phase, presented in the framework of the literature review, is not analysed here as it only concerns four NTBFs from the sample, all of them originating from universities, with access only to specific grants.

4.1. In the start-up phase, public funds represent the great majority

- 31 In the start-up phase, €3.7 million in funds were gathered in 15 financing rounds. Table 3 below provides details about the distribution of this amount according to the source of funds.

Table 3. Funds raised in the start-up phase

		Funds raised at start-up	
		k€	%
Public funds	Grants	1 448	39%
	University VCs	842	23%
	Public VCs	600	16%
	Public loans	0	0%
	Total	2 890	77%
Private funds	3Fs	325	9%
	Private VCs	284	8%
	Banks	132	4%
	Business angels	105	3%
	Total	846	23%
TOTAL		3 736	100%

- 32 Public funds play a crucial role and represent 2.8 million euros, i.e. 77% of the total. This predominance is in keeping with the theoretical elements mentioned above. In this stage of development, NTBFs are still particularly fragile and most private investors prefer to wait for the first sales before investing.
- 33 Private funds only amount to €845 000, i.e. 24% of the total. The 3 Fs represent €325 000 and are limited to company creation, whereas private capital (business angels and venture capital) is rare. With regard to the literature, the presence of bank loans is more surprising at this stage, all the more in the absence of public loans. In this case precisely, these loans were granted systematically thanks to public guarantees of 50%. This paradox is due to the fact that the loans and public guarantees depend on different bodies.
- 34 Next, for each source of funds, we analysed the number of requests obtained and refused, as well as the order of the requests made by the entrepreneur: first, second or third choice. In the start-up phase, 28 requests were granted out of a total of 39, i.e. 72%. The details are presented below in table 4.

Table 4. Requests accepted and refused in the start-up phase

	Requests accepted				Requests refused			
	1st choice	2nd choice	3rd choice	Total	1st choice	2nd choice	3rd choice	Total
3F	9	0	0	9	0	0	0	0
Grants	6	2	0	8	0	0	0	0
Public VCs	2	0	0	2	2	1	0	3
University VCs	3	0	0	3	2	0	0	2
Business Angels	3	0	0	3	1	0	0	1
Private VC's	1	0	0	1	2	0	0	2
Public loans	0	0	0	0	1	2	0	3
Banks	1	0	1	2	0	0	0	0
TOTAL	25	2	1	28	8	3	0	11

- 35 This table highlights two elements. Firstly, the significant number of requests granted in the case of first choices underlines the fact that, most of the time, entrepreneurs obtain what they prefer. Otherwise, they did not have to make more than three attempts. Secondly, all of the sources of financing receive requests and only public loans are totally inaccessible. Logically at this stage and given the make-up of our sample, grants were in high demand. They are therefore allocated systematically.
- 36 The joint analysis of the two tables above leads to three conclusions concerning the start-up phase. Firstly, public funds represent the great majority in number of requests as well as in amounts obtained. Secondly, while funds from the 3 Fs and grants are always allocated, public and private capital is more difficult to obtain. Despite the early stage, bank loans are obtained thanks to public guarantees, whereas public loans are refused. Thirdly, all of the sources of funds receive requests as a first choice. In the case of a refusal, the public sources receive requests and funds are obtained after only three attempts.

4.2. In the launch phase, grants remain central despite the increase in private capital

- 37 In the launch phase, close to €15.5 million were gathered in 23 financing rounds. Table 5 presents the distribution according to the source of funds.

Table 5. Funds raised in the launch phase

		Funds raised at start-up		Funds raised at launch		Evolution	
		k€	%	k€	%	k€	In proportion
Public funds	Grants	1 448	39%	5 471	35%	4 023	x3,8
	University VCs	842	23%	400	3%	-442	x0,5
	Public VCs	600	16%	550	4%	-50	x0,9
	Public loans	0	0%	655	4%	655	NA
	Total	2 890	77%	7 076	46%	4 186	x2,4
Private funds	3Fs	325	9%	25	0%	-300	x0,1
	Private VCs	284	8%	4 750	31%	4 466	x16,7
	Banks	132	4%	712	5%	580	x5,4
	Business angels	105	3%	2 936	19%	2 831	x28
	Total	846	23%	8 423	54%	7 577	x10
TOTAL		3 736	100%	15 499	100%		

- 38 With respect to the preceding phase, private funds increase substantially, reaching €8.4 million, i.e. 53% of the total, essentially thanks to business angels and private venture capital. Private loans, which are almost always related to public guarantees, also increase.
- 39 Public funds reach €7.1 million, i.e. 47% of the total. Despite this relative decrease, grants remain the biggest source of funds, with €5.5 million. At the same time, university and public venture capital decrease. Stakeholders in the field explain this backward surge – which is surprising given the increase in grants – by the low capitalisation of these funds, which makes investment difficult after the first round. Public loans appear.
- 40 We identify a total of 62 requests, 52 of which were granted. This represents an allocation rate of 83%, i.e. an increase of 11% with respect to the start-up phase; the decrease in uncertainty makes it easier to obtain private funds. Table 6 below provides details.

Table 6. Requests accepted and refused in the launch phase

	Requests accepted	Requests refused
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	1st choice	2nd choice	3rd choice	Total	1st choice	2nd choice	3rd choice	Total
3Fs	1	1	0	2	0	0	0	0
Grants	19	0	3	22	2	0	0	2
Public VCs	2	1	0	3	2	0	0	2
University VCs	2	1	0	3	1	0	0	1
Business angels	3	3	1	7	2	0	0	2
Private VCs	4	1	0	5	1	0	0	1
Public loans	4	1	0	5	2	0	0	2
Banks	3	1	1	5	0	0	0	0
TOTAL	38	9	5	52	10	0	0	10

- 41 We underline four elements in the analysis of this table. Firstly, all of the sources receive requests as a first choice and the entrepreneurs do not make more than three attempts, as in the start-up phase. Secondly, grants are requested most, and almost exclusively as a first choice. This observation contradicts the idea of requests for grants only in situations of financing restrictions and is discussed further in section 6. Thirdly, private capital – business angels and venture capital – is requested and granted more often. Fourthly, the decrease in uncertainty regarding NTBFs also leads to the emergence of public loans. At the same time, the number of bank loans increases and their allocation is almost always associated with public guarantees.
- 42 These results lead to three conclusions regarding the launch phase. Firstly, grants remain the most common method of financing even though private VCs and BAs progress substantially. Secondly, public and university VCs decrease due to a low investment capacity. Thirdly, the development of NTBFs leads to an increase in the overall allocation rate.

5. Additional observations on the request for grants

- 43 NTBFs are therefore able to obtain financing in the start-up phase as well as in the launch phase. We notice, however, frequent requests for grants as a first choice despite the growth of NTBFs and the arrival of private investors in their capital. This phenomenon raises questions, leading us to go further into our research.
- 44 Therefore, for each financing round, we examined the reasons which prompted the entrepreneurs to turn towards grants and the circumstances of these requests, and then compared these results in order to evaluate the prevalence and the pertinence. After this process, we identified six cross-cutting themes in connection with the requests for public aid by entrepreneurs, and have provided details in the following

sub-sections. The first three themes provide indications on the context in which grants are requested, whereas the last three concern the grants per se.

5.1. Strong inter-regional competition

45 The intervention in Brussels takes place within a federal state which has multiplied the regions and forced them to compete. This situation restricts the room for manoeuvre of the regions and has had a concrete impact on the progress of five NTBFs in our sample.

46 On the one hand, this competition may lead to an increase in available grants to attract NTBFs. This phenomenon is made easier by two factors. Firstly, the mobility of entrepreneurs and their establishment throughout the country is easy. Secondly, the relatively small size of BCR means that the entrepreneurs who decide to settle in the direct outskirts in order to benefit from aid from other regions stay close to their clients. Regarding this competition, an entrepreneur states:

“I already knew about all of the [...] aid in Wallonia [...]. I had studied the pros and cons of coming to Brussels and Wallonia. But I came to Brussels due to international credibility and the available aid.”

An entrepreneur

47 On the other hand, NTBFs may be asked to settle in several places throughout the country in early phases. This phenomenon is underlined by entrepreneurs and file managers:

“[Did you have to open a head office in Wallonia?] We did that afterwards as we applied for other grants.”

An entrepreneur

“Not to mention [...] that we needed a head office in Flanders after having to open one in Wallonia [...], and we were going to end up with three places of business [...].”

A file manager

5.2. Interventions in the form of loans and public investments postponed

48 The analysis of the financing of NTBFs underlined the relatively small proportion of investments and public loans. The analysis of interactions between the ten NTBFs in the sample and finance.brussels indicates that the group's investment conditions have evolved and cause it to intervene later in the development of NTBFs, most of the time in the form of loans. The stakeholders in the field explain that this is due to the difficulty to liquidate capital positions in NTBFs as well as their financial autonomy obligation, which limits the funds available to them and increases their risk aversion:

“We propose [...] to continue the analysis in the following framework: intervention limited to €250 000, if and only if €1.5 million in funds are gathered and if the financing round includes a professional investor specialised in IT.”

An entrepreneur

“SRIB [...] turned down our request because they had a new strategy [...] which meant no longer investing capital but only providing loans.”

An entrepreneur

“We used to deal with more capital than loans. Typically, 75% of the amounts were capital and 25% were loans. Today we provide more loans than capital, for several reasons. Firstly, there is the phenomenon of liquid assets. [...] With loans it is simple. If all goes well, the monthly payments are made automatically for 5 to 6 years and everything is reimbursed. With capital, it is more complicated. We

have to be able to sell back our shares. Sometimes there are companies which are doing really well but which do not want to buy back our shares, so we are left with investments which we would like to make elsewhere.”

A file manager

5.3. A common and informal collaboration between regional stakeholders

- 49 Our analysis also underlined the existence of a mainly informal collaboration between regional stakeholders in the follow-up of shared files. Although they were in contact with several public stakeholders, six NTBFs from our sample explained that they did not participate in multi-stakeholder meetings between several of these stakeholders. With the exception of certain formal initiatives involving the boards of directors of institutions, the informality of this collaboration makes it sensitive to uncertainties such as the quality of interpersonal relationships, and fragments the available information.

“Quite frankly, things would be better in the Region if all of the operators shared the same CRM. In this way, anyone from the region could find out what a company has received, as there are companies which shop around and receive aid here and there.”

A file manager

“We speak with each other but do not work together towards a common objective in a structured and systematic manner.”

A file manager

“We meet the entrepreneurs at Innoviris. [...] They go to Impulse [...] and X contacts me to speak about an interesting file which he is looking at. These are files which we know about thanks to several sources.”

A file manager

“[Institution 1] and [Institution 2] meetings – yes, on several occasions. [Institution 1] and [Institution 3] – no, because these two structures do not work very well together, as the people in charge of these bodies [...] do not get on [...]. This has unfortunate consequences.”

An entrepreneur

- 50 In a context where entrepreneurs are often in contact with several institutions simultaneously, this situation may increase the risk of uncoordinated actions and could make it easier for an opportunistic manipulation of schemes by entrepreneurs, as stated by several file managers.

5.4. Public aid: victim of opportunism

- 51 We have seen the existence of opportunism regarding grants with six NTBFs in the sample. The entrepreneurs know about available grants and public guarantees, and therefore sometimes apply for them in order to benefit from the quickest and easiest aid or to postpone the opening-up of capital. Two entrepreneurs are particularly clear:

“Today, we have less of a need for money. But if we see that there are grants which are quick and easy to obtain, we always take them.”

An entrepreneur

“[Regarding a request for a grant] As I was saying to you, we were not at all interested in opening up capital. We did not want investors. It was just a contingency plan.”

An entrepreneur

“We took the minimum amount of capital in order to apply for a maximum number of grants and loans.”

An entrepreneur

- 52 Regional stakeholders are sometimes known to have this intention:

“At first [...], they did not really want bank loans and were even less interested in shareholders. And yet, some were able to invest in the company [...] But they really did not want to take any risks and were only interested in public money...”

A file manager

5.5. Formalism deemed to be ill adapted to reality

- 53 The allocation of a grant involves the submission of a detailed plan of tasks sometimes more than one year in advance. Adherence to the schedule is then verified, as explained by a stakeholder in the field:

“The assessment of the first file therefore took some time, so that the company could describe its internal R&D process as structured Work Packages and not just modules developed here and there. They had a continuous and permanent view of their R&D and we asked them to bring it into a structured programme.”

A file manager

- 54 For NTBFs, this formalism is very time-consuming and sometimes detrimental as underlined by seven of them. As their environment evolves rapidly, the entrepreneurs state that they are sometimes forced to carry out tasks which they feel have become irrelevant. They also indicate that it is not unusual to carry out backward scheduling at the end of a project in order to make what was carried out match what was announced:

“Sometimes you have to present them with something in order to get the grant, but afterwards, in reality, you have to do something else. At the end of the project you have to make sure that what you did matches what you said you would do, and this is not always easy.”

An entrepreneur

5.6. An objective to create jobs which leads to imbalance

- 55 In the absence of financial return on grants, employment plays a key role in the evaluation of the benefits of projects. The role of the expected creation of employment was found during the evaluation of the files of nine of the NTBFs in the sample. Stakeholders in the field stated:

“Employment is the most important criterion.”

A file manager

“They also had a developer to hire for the project, which also prompted us to finance because there were plans for direct employment.”

A file manager

“They presented a file [...] to a jury of experts and went through all of the stages; they won everyone over. [...] The financial plan was quite surprising [...] but they had a really good staff development plan.”

A file manager

“Another reason why they received aid is that there were plans to hire some people, and that is what was important to us; if the aid is able to generate direct employment it is a very big advantage, and in this case there were two FTEs which were going to be created directly.”

A file manager

- 56 There may therefore be an incentive to hire in order to obtain public aid, even if it means having to restructure NTBFs later, as stated by several entrepreneurs:

“We focused on things with a true economic added value. [...] The region prompted us to hire but now we have cut back.”

An entrepreneur

“In an ideal world, it is best to have venture capitalists because their interests are in keeping with ours. They want the company to be successful and create value for the shareholders [...]. The interest of the public authorities [...] is to create employment [...]. This is not in line with ours and sometimes they are in conflict.”

An entrepreneur

- 57 The results presented in sections 5 and 6 therefore paint the picture of a financing system in Brussels which supports the development of NTBFs. With 72% allocation in the start-up phase and 83% in the launch phase, entrepreneurs are able to obtain financing even if it means possibly having to re-evaluate their needs and turn to other sources of funds.
- 58 We nevertheless would like to draw the attention of the Brussels authorities to several points. Firstly, inter-regional competition exists, and it has the effect of increasing the amount of aid to allocate in order to attract NTBFs and reduce the regional room for manoeuvre. In this context, we see that grants are very present throughout the period despite the arrival of private investors. An in-depth analysis reveals opportunism with respect to these grants, which is possible due to their wide availability as well as the informal and sometimes imperfect collaboration between file managers from the different institutions. The low capitalisation of public investment funds leads them to postpone their intervention, which amplifies the key role of grants. Finally, let us underline the public formalism which is ill adapted to the volatility of the environment of NTBFs.

6. Proposals resulting from the focus group with stakeholders in the field

- 59 Once we had made our conclusions, we organised a focus group. After a presentation of our results, the participants were invited to make recommendations to improve the system in Brussels and, in particular, the necessary financial schemes as well as the best way to ensure their management and coordination. Following these exchanges, the participants underlined that the diversity of problems faced by NTBFs entails a varied public offer elaborated according to these needs and no longer in institutional terms. The recommendations proposed by the participants are summarised below in table 7, where we distinguish between the general recommendations intended for the regional authorities and operational recommendations for their implementation.

Table 7. Recommendations intended for the regional authorities

General recommendations for regional authorities	Improve coordination and legibility of schemes	Revise methods of awarding grants to avoid deadweight effects	Develop public financing which is an alternative to grants
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Operational recommendations	- Assign one manager for each NTBF.	- Redirect NTBFs towards other public financing schemes as of first sales or arrival of private investors.	- Recapitalise public loan and investment schemes.
	- Create a formal coordination mechanism gathering all of the regional stakeholders on the panels.		- Align the interests of loan and investment funds with those of private investors.
			- Systematise the participation of private stakeholders in parallel to public interventions.
			- Develop public loans for “service” NTBFs.

60 Following the exchanges, three general recommendations were therefore formulated:

1. Improve the coordination and legibility of schemes in order to compensate for the multiplicity of stakeholders in charge of support for NTBFs. In order to achieve this, they recommend the assignment of one manager for each NTBF. The manager would be in charge of directing entrepreneurs throughout the process. They also put forward the creation of a formal coordination mechanism gathering all of the regional stakeholders on the panels. Such a mechanism would allow more concerted action, limiting the risk of manipulation of schemes by the entrepreneurs, and a better follow-up of the evolution of NTBFs. According to the participants, increased coordination and responsiveness of schemes are factors which differentiate BCR from its neighbours.
2. Revise the methods of awarding grants in order to limit them to the pre-commercial phase and before the arrival of investors. After this stage, NTBFs should be redirected towards other public financing schemes. The grants would therefore remain limited to R&D projects.
3. Develop public financing which is an alternative to grants, in particular through loan and investment schemes. These schemes should pursue objectives which are in keeping with those of private stakeholders in order not to discourage the arrival of the latter, and should seek to co-invest with them as much as possible. Thus, public money would benefit from leverage. Furthermore, it would be useful to reinforce and develop financing which is adapted to the opportunities for the valorisation of NTBFs. Investors show little interest in the service sector due to greater workforce needs and growth which is often slower. The regional system would therefore propose loans to these NTBFs as an alternative.

Conclusions

61 Although they are limited to our sample, our results underline varied financing for NTBFs from the beginning phases. Many sources of funds are requested and NTBFs are able to obtain financing even if several attempts are sometimes necessary. In the case of difficulties, grants are an alternative to private financing. However, let us mention several points to the regional authorities: (1) the availability of grants leading to opportunism, (2) informal operational coordination which is fragile as a result, (3) the absence of public capital in the launch phase while grants continue to be widely used in

this phase, and (4) inter-regional competition which leads NTBFs to multiply their locations and contributes to increasing the amount of aid allocated.

- 62 Based on these elements and on the focus group with stakeholders in the field, we have formulated three recommendations. Firstly, the creation of a formal coordination mechanism gathering all of the stakeholders on panels in order to propose coordinated aid and ensure better follow-up for NTBFs. Secondly, the assignment of one manager for each file, in charge of supporting entrepreneurs throughout the process. Thirdly, a refinancing of public loans and capital and a limiting of grants to the pre-commercial phases in order to reduce opportunism, improve the profitability of aid for the region and accelerate the reinjection of funds in schemes and in the Brussels economy.

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ABSTRACTS

New technology-based firms are sometimes faced with financing difficulties and are able to count on various schemes and public aid to help them in their start-up phase. In this article, through case studies, we examine the ways in which entrepreneurs in Brussels have obtained financing and, in particular, their use of public schemes. We end with the description of an efficient system in which, nevertheless, the numerous grants are sometimes diverted from their objective. Based on these results and a focus group with stakeholders in the field, we discuss recommendations by insisting on the importance of a revision of grants in order to limit deadweight effects, a refinancing of investment structures and public loans, and better general coordination of these schemes.

Les jeunes entreprises technologiques connaissent un financement parfois difficile et peuvent compter sur des dispositifs et aides publiques pour les aider aux premiers stades. Dans cet article, nous examinons à l'aide d'études de cas comment les entrepreneurs bruxellois se sont financés et, en particulier, l'usage qu'ils font des dispositifs publics. Au final, nous dressons le portrait d'un système efficace mais où les subsides, très présents, sont parfois déviés de leur objectif. Sur base de ces résultats et d'un focus group avec des acteurs de terrain, nous adressons des recommandations en insistant sur l'importance d'une refonte des subsides pour limiter les effets d'aubaine, d'un refinancement des structures d'investissement et de prêts publics et d'une meilleure coordination générale de ces dispositifs.

Het is voor jonge technologiebedrijven soms moeilijk om aan financiering te geraken. Nochtans komen ze in aanmerking voor diverse instrumenten en steunmaatregelen van de overheid die hen in de eerste fasen kunnen helpen. In dit artikel onderzoeken we aan de hand van casestudy's hoe Brusselse ondernemers zich gefinancierd hebben en vooral, hoe zij van de overheidsinstrumenten gebruikmaken. Uiteindelijk schetsen we het beeld van een efficiënt systeem waarbij de, bijzonder aanwezige, subsidies soms echter hun doel missen. Op basis van die resultaten en van een focusgroep met actoren op het terrein formuleren we enkele aanbevelingen, waarbij we de nadruk leggen op het belang van een hervorming van de subsidies (om buitenkanseffecten te vermijden), een herfinanciering van de investeringsstructuren en overheidsleningen, en tot slot een betere algemene coördinatie van deze instrumenten.

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