INSTITUT WALLON DE L'ÉVALUATION, DE LA PROSPECTIVE ET DE LA STATISTIQUE

Assessment programme of *PM2.V* (Marshall Plan 2.Green, *Plan Marshall 2.Vert)*

Executive summary

THEMATIC ASSESSMENT 4 - FINANCIAL SUPPORT FOR SPIN-OFFS AND OTHER INNOVATIVE COMPANIES

This study report is enshrined within the context of the assessment programme of *PM2.V* (Marshall Plan 2.Green, *Plan Marshall 2.Vert*) commissioned by the Walloon Government from the IWEPS. It is seeking **to provide public decision-makers with a series of recommendations that could shed light on their actions intended to facilitate the access of young innovative companies to appropriate financing sources in support of their development.**

To make these recommendations, **this report is based on a broad review of the recent literature carried out**, at the request of the IWEPS, **by a team of experts from the Vlerick Business School** of Ghent. The following text summarises that team's work.

Generally, SMEs, described as "traditional", are largely financed by bank credit. As for young innovative companies, the subject of the study, they are characterised by (i) important intangible investments (R&D), (ii) a high degree of risk and uncertainty, (iii) negative cashflows and a lack of tangible fixed assets; as many specifics which prevent their access to bank financing. Financing formulae that are more suitable for those companies' particular profiles do however exist: the contribution of capital, of quasi-capital or subordinated loans, business angels and, more recently, participative financing or crowd funding. **These financing modes, akin to venture capital, are at the heart of the review of the literature that has been carried out.**

The literature review has involved empirical work, analysis or comparative studies (*benchmarking*) of the financing systems for young innovative companies identified abroad, both public and private. It thus shed light on the mechanisms implemented in the same perspective in Wallonia.

Pointing out the elements of convergence or divergence between the results of the analyses, the review at the end comes up with a series of recommendations for submission to the decision- makers. **These recommendations are articulated around five sections,** which structure the whole of the report:

- **Optimisation of the institutional framework;**
- **Professionalisation of the venture capital demand;**
- **Stimulation of the private venture capital supply (including business angels and crowd funding);**
- **State action as venture capital investor;**
- **State role in the access to corporate financing for new companies in the *Cleantech* sector ("clean technologies").**

To facilitate the appropriation of the themes, each section includes **summary tables showing the main results of the analyses** and finishes by including the **most relevant academic references** on the subject. The report also contains a **lexicon of the terms of reference** used in it.

As far as possible, the report positions the situation of Belgium - Federal state and/or Regions as the case may be - (indicators, legislation in force, etc.) for each dimension that is studied.

The following lines summarise the main conclusions and recommendations of the review of the literature established according to the five aforementioned sections. It should be noted that **these conclusions and recommendations are in a perspective that is focusing on the venture capital market,** in its earliest segments of financing, **with the objective of optimising its workings.**

Section 1 - Optimisation of the Institutional Framework

A country's institutional framework (**regulations in force**, **macroeconomic policy carried out and dominant culture)** affects the venture capital supply and demand. The influence of the regulatory modes of the labour market, the public expenditure on research and development, the legal system for protecting investors, the regulation of pension funds and other institutional investors, insolvency legislation and, finally, taxation are successively analysed in the report.

Labour Market Regulatory Modes

A flexible labour market allows companies to recruit and lay off workers, dynamically, in relation to the needs of their activity. By facilitating the adjustment of manpower levels, the attraction of entrepreneurial projects for venture capital investors is reinforced. In Belgium, venture capital could be more widely available if, with regard to the worker assurance mechanism, job protection gave way to a more active labour market policy, following the example of the Danish *flexicurity* model.

Public Research and Development (R&D) Expenditure

The public R&D expenditure generates technological output, and thus offers new outlets for existing companies or ones to be created , likely to be of interest to venture capital investors. Depending on the intensity of the public R&D (public R&D expenditure as a percentage of the gross domestic product), Wallonia and Belgium as a whole should aim for a **rise in public R&D expenditure** in order to stimulate the venture capital market.

Legal Investor Protection System

For capital investors, minority shareholders in the companies of their portfolios, it is important to be able to count on legal protection (protection of the shareholders' right to vote against management abuse, minority shareholders' right of recourse, etc.). Any action towards better investor protection is of a kind to encourage development of the venture capital supply.

Regulation of Pension Funds and Other Institutional Investors

Among venture capital investors, an important place is usually occupied by pension funds, insurance companies and other institutional investors. This is why their regulation closely affects the venture capital supply: **easing and harmonization of the regulations** in their regard are factors that could well increase the volumes invested in the form of venture capital. In Belgium, for many years, these institutional investors have been absent from the venture capital market, which limits the available resources for young innovative companies.

Insolvency Legislation

The legislation on the personal bankruptcy, like that on corporate insolvency, has repercussions on the venture capital demand. Overly strict legislation negatively influences the creation of enterprise and dissuades entrepreneurs from requesting capital, in the form of bank loans or participations (venture capital). In Belgium, provisions envisaging the **release from bankruptcy for honest entrepreneurs** should therefore be maintained. Measures could on the other hand be taken **to reduce the period of time between the bankruptcy and the possibility of rehabilitation**. Generally, **less severe bankruptcy legislation for debtors** (*debtor friendliness*) would stimulate the demand for external financing.

Taxation

Taxation also affects the development of the venture capital market. In Belgium, under certain conditions, **share appreciations are exonerated from tax**. This system makes the acquisition of a capital stake attractive for the entrepreneurs and for the external investors, such as business angels and professional venture capital investors. This system should therefore be maintained. On the other hand, a **lowering of the corporation tax rate** in order to facilitate the development of the companies' activity and the investors' potential profitability should be reviewed.

In addition to the analysis of these various factors influencing the venture capital market, one can also wonder about the **coherency of the current public policies.** Indeed, although most European Member States are committed to policies that seek to facilitate access to financing for young innovative companies, they sometimes implement measures that impair the achievement of that objective. **Public sector orders** provide an illustration of this. On this matter, the Member States often impose strict requirements on the tendering companies: obligation to show a sound financial situation via financial statements over several years, to declare profits, to have a minimum of capital, etc. But **some of these requirements hinder**, sometimes disproportionately, **innovative new companies' access to public contracts**. At the same time, the **guarantee deposit system places a strain on the companies' liquidity. The ensuing financial difficulties are furthermore amplified by the frequent late payments made by the public authorities.** Thus, the important market that the public sector represents is often inaccessible to new companies, to the detriment of their growth potential.

Section 2 - Professionalisation of the Venture Capital Demand

A financial market in good health involves attention to the conditions of supply and demand alike. At the level of the demand, one major problem is apparent: **many entrepreneurs are not overly versed in financial technique**. They have not mastered the fundamentals of the discipline and have little knowledge of the various possible funding sources, including sometimes those proposed by the public sector. Their scant knowledge of the financial alternatives limits the range of options taken into account and ultimately leads to sub-optimal choices of financial strategy. Their incompetence also weakens them in their negotiation of investment procedures. To mitigate these weaknesses, advisors can be called upon, such as **accountants or lawyers.** However, such players **are not necessarily qualified with regard to financing by venture capital**.

In the light of these observations, it is recommended that care should be taken:

- To improve training on financial matters, by the **insertion into the training curricula of obligatory finance courses** for secondary education pupils and higher education students;
- To develop, for the attention of company heads, **training or coaching on the existing financial alternatives and the workings of the venture capital market** and, for the entrepreneurs who orient themselves, with full knowledge of the facts, towards venture capital, **training of the "*investor readiness*" variety** (structuring of a business plan, techniques of presentation to potential investors, etc.) in order to maximise their chances of raising capital;
- To accord a **greater place to financing by venture capital in the initial training of accountants** - accountants being the first advisors of the entrepreneurs in their financing policy - **and in the continuous training of the entrepreneur's advisors** (accountants, but also lawyers or bankers).

Section 3 - Stimulation of the Private Venture Capital Supply

In young innovative companies, venture capital is essentially brought by (i) the **entrepreneurs themselves, their families and their friends ("*Love Money*" - "*Family, Friends, Fools*" (OFF))**, (ii) business angels, (iii) **professional venture capital investors** and, recently, (iv) crowd funding.

Love Money – Family, Friends, Fools

The contribution of capital by family and friends could intensify under the effects of better financial knowledge (in the long term) and of fiscal policy (in the short term). In Flanders, for example, family and friends benefit from a tax break if they agree to a subordinate loan to a start-up company. This system, known under the name of ***win-wineling***, has been in place since 2006 and to date has benefited some 3,000 companies for a total amount of about 100 million euros.

Crowd Funding

Crowd funding is a technique that enables **entrepreneurs - individually or in a group - to get their initiatives financed by relatively small contributions from a significant number of private individuals, via an Internet platform and without recourse to traditional financial intermediaries**. Although it was initially developed in creative activities, crowd funding contributes today to the implementation of entrepreneurial projects in various sectors. The literature identifies four major types of crowd funding, according to what the investor receives in return for his or her contribution: crowd funding on the basis of donations (no counterpart), crowd funding with reward (non-financial benefit), crowd funding by loan (periodic fixed income and repayment of the principal) and crowd funding on the basis of capital (participation in the capital or similar). Although the fourth model, on the basis of capital, is still relatively rare, it is currently recording the strongest growth and is thus attracting the decision-makers' attention.

In Belgium, crowd funding **is hampered by the absence of a legal framework**. Serious thought should be given to the construction of an appropriate legal framework, drawing inspiration from existing models in Italy or the United States. In particular, it would be interesting **to formulate specific rules in relation to the threshold of the raised capital amount above which a prospectus would be required.** Currently, in Belgium, companies are required to produce a prospectus when they hope to raise capital in excess of 100,000 euros. In Italy and the United Kingdom, the limit for crowd funding operations has been taken to 5 million euros (the maximum allowed in EU law).

Business Angels

A business angel **is a private individual who has important private financial resources** (often a former entrepreneur) **who invests his or her own money, alone or with others, in non-listed companies, without it being a question of family or friendly relations** (distinction from *Love Money, see above*), **in the hope of obtaining a significant financial return.**

Financing via business angels has several important characteristics:

- At the seed stage and the start-up stage, business angels impose themselves as the **first source of venture capital**, far in front of professional investors, especially because the latter tend to prefer later phases of financing, or buy-outs, because of the mediocre return from the initial stages (*see below*);
- Business angels seem less **sensitive to market cycles** than are professional venture capital investors;
- Business angels ensure a ***deal flow*** **for second-round investors**: Business angels can help SMEs to gain subsequent access to financing from professional investors by presenting the latter with an interesting series of investment opportunities.

The advantages of this kind of capital financing for SMEs at the seed or start-up stage should encourage the public authorities to take favourable measures for the development of this market. When it is a question of taking measures to stimulate the informal venture capital market, the most traditional type of intervention is that of the tax incentive. In the Belgian context, other actions however are worth highlighting.

The first measure could relate in training. Potential business angels would like to invest in start-up companies, but these former entrepreneurs and experienced businessmen hesitate to take the plunge; knowing little about the process and/or having insufficient competency for investing in a start-up. *Ad hoc* training could **turn these "*virgin angels*" into active investors**.

In parallel, **active promotion of success cases**, but also of cases of explained failures, could reinforce those players' visibility and legitimacy. It is important in this respect to make reference to "traditional" business angels than to "super-heroes". *In fine*, such promotional campaigns could motivate some business angels to invest.

Public action could be also directed towards ***business angel* networks**. The latter establish contact on the one hand between entrepreneurs in search of venture capital and on the other private individuals wanting to invest in new companies. **These networks therefore stimulate the availability of capital by facilitating the circulation of information on the market** (anxious to preserve their anonymity, business angels are not that visible in the market). In many areas of Europe, the **public authorities subsidise the creation and the animation of business angel networks** (*business angel networks (BANs)*) in order to enable them to offer high quality services to entrepreneurs and investors, with the objective of increasing the probability of young companies being financed.

In parallel with the BANs, one also notes the emergence of **groups or *business angel consortia*** - business angels **who invest together rather than in an individual capacity or in groups constituted for the occasion.** These groups are interesting in several respects:

- They can **fill the growing gap due to the absence of professional investors intervening at the seed and start-up stages and due to the limited means of an individual investor**;
- These groups, like the BANs, are **more visible in the marketplace** than individual investors;
- they allow private individuals who have financial resources, but who are hesitating to invest on their own, to join a financing group;
- **The increased volume of the available resources opens up the way for the financing of corporate growth**, after the launch phase;
- **The range of competences** shared by the members of the consortia **offers** higher **added-value** for the company benefiting from the financing.

In view of these advantages, like for the BANs, **public intervention in the launch and operational expenses of such groups** would seem to be relevant.

Lastly, it appears that **State / Business Angel Co-investment programmes** (contribution of public funds equal to the business angels' outlay) are enjoying growing success, partly due to the success of the *Scottish Co-Investment Fund* (SCF). In Belgium, the Participation Fund has for a long time applied a co-investment model with business angels: **the Participation Fund** invests a maximum of 125,000 euros in the form of subordinated loans, parallel to the outlay of an accredited business angel. The advantages of financing by businesses angels, as previously expounded, call for a **continuation of the mechanism in the context of the regionalisation of the Participation Fund**. The possibility of dealing with business angel consortia (target of the SCF) can be considered in connection with the need for supporting the creation and the development of such groups (see above).

Professional Venture Capital Investors

The European venture capital market, in the initial financing segments, has for a long time suffered from **weak returns, insufficient to compensate for the risks taken by investors**. **Two factors** explain this weakness of return.

- **The lack of attractive exit markets**, like that of the Nasdaq in the United States, where investors at risk, professional investors or business angels, can resell their stakes in innovative companies attractive prices;
- **The intrinsically weaker growth of European companies compared to their American counterparts**; the European market remaining fragmented by numerous legal, cultural and linguistic barriers.

Taking account of these observations, the public authorities are endeavouring on all levels - European, federal and regional - to take favourable measures for the development of the venture capital supply. At the European level, the European Commission is pursuing a goal of **greater transparency of venture capital funds**, which could increase the amount of finance available on the market. Still at the European level, new initiatives must also be taken in favour of **setting up Pan-European exit markets for innovative companies of every sectors** (an example of a fruitful initiative: Euronext Brussels, which can today be regarded as a regional hub of the new biotechnological companies).

Before closing this section relating to the stimulation of the various components of the private venture capital supply, it is necessary to insist on the need **for having a balanced mix of funding sources**, given the particular behaviour of the various types of investor, especially in periods of financial or economic crisis; the recent experience has proved this to us.

Section 4- State Role as Venture Capital Investor

In view of the importance of the venture capital market for the development of young innovative companies and given the difficulty in ensuring attractive returns for private venture capital investors, many States have entered the venture capital market in the niche of financing companies at an early stage.

Public authorities can indeed play an active role in this market, through **direct investments** in companies or **indirect investments** in them as associates of private venture capital funds. Indirect programmes include in particular investments in the **fund of funds** and in the **co-investment fund. A fund of funds develops an indirect investment strategy through the holding of portfolios of other investment funds, rather than investing directly in the companies supported by those funds**. **As for the co-investment funds**, such as the Archimedes programme in Flanders for example, **they invest an amount of public money corresponding to the private sector's outlay**. Often, these co-investment programmes are not only regarded as **instruments for raising private funds**, they also constitute (i) an **approach for amplifying and professionalising the investment market at the initial stages** and (iii) a **tool for attracting foreign investors**.

According to the review of the academic literature that has been carried out, **public venture capital funds play a positive role for the financed companies and for the venture capital market as a whole when they apply the following principles:**

- **They limit their intervention to market segments that are clearly imperfect, namely the financing of companies' first steps.** If the public venture capital funds extend their activities to segments that are more downstream, by addressing themselves to companies that are more mature, that tends to hamper the intervention of private investors (effect of ousting or crowding out the private venture capital).
- **They co-invest with private partners, leaving the power of choice and decision relating to the investments in the private partners' hands.** It appears indeed that the managers of the public programmes have narrower professional skills than their private colleagues in terms of selection, monitoring and value creation. When the public funds are alone in investing in a new company, the empirical literature generally highlights a negative impact on the companies benefiting from the

investment, with at the end of the day less growth and less job creation. On the contrary, when public venture capital funds invest in liaison with private players, those partnerships generate significant positive effects at the level of the companies in the portfolio wallet and the financial market as a whole.

Section 5 – State Role in the Access to Corporate Financing for New Companies in the *Cleantech* Sector

The general recommendations, expounded above, seeking to stimulate the market for the financing of innovative companies, also apply to the ***Cleantech* or the "clean technologies" sector**. However, the particularities of this sector, which encompasses **companies involved in technologies seeking to meet the challenge of diminishing resources, including energy resources, and to reduce the negative environmental impact of the productive activities, call for particular public policies.**

Firstly, the investment in this sector generates a **societal value**, in addition to a **private value**. Given the private sector's interest in the first type of advantage alone, one can expect an **underinvestment in this field**. This situation justifies public action, especially via **financial support for fundamental research.** This measure seeking to support the sector's technological development ("***technology push***") should stimulate the venture capital supply in the branches of activity in question.

Secondly, many of the investments required in the lifecycle of the C*leantech* sectors projects are characterised by an **important technological risk and strong capital intensity**. This is in particular the case with regard to demonstration installations, necessary after the prototyping phase, in order to prove that the technology works on a real scale. The technological risk and the capital intensity limit the attraction for private investors, thus leading to insufficient investment. Beyond the support for the fundamental research (see above), public intervention is also required on **direct investments seeking to facilitate the crossing of the "valley of death"**.

Thirdly, it seems that **few business angels or professional venture capital investors are planning actively to invest in the *Cleantech* sector**. That is explained by the **conjunction of several risks characterising these markets,** the main ones of which are listed below:

- **The technological risk**: as already mentioned, the technological risk is important because of the capital intensity and the necessary long delay between the technological development and the marketing campaign (comparable to the delay noted in the biotechnology sector, knowing however that in the latter, the investors have earlier exit paths (see below);
- **The market adoption risk:** the markets can decide not to adopt new technologies or can do so slowly; the players in place hesitating in the face of new solutions (tendency to conservatism of the former monopolies in the energy sector, for example). To that is often added the brake constituted by the paucity of private advantages experienced by the end consumer;
- **The "human" risk:** No ecosystem (yet) exists with, on the one hand, entrepreneurs experienced in the management of start-ups involved in clean technologies and, on the other, business angels or professional investors specialising in this particular sector;
- **The exit risk:** the possibility of exiting an investment is a key factor in the proper workings of the venture capital markets. The two main exit paths which are offered to capital investors are, on the one hand, stock market entry, and on the other, commercial sale. Currently, the fact of exiting a company involved in clean technologies seems somewhat tricky. Examples of successful stock market entries by companies of this kind are still rare. Furthermore, it is still not known whether a mergers and acquisitions market for companies of this kind will develop, because the big operators in place (for example, the great groups involved in electrical energy) seem reluctant to acquire young C*leantech*

companies (unlike the great pharmaceutical groups, for example, which more readily adopt open innovation strategies).

Faced with these risks, the public authorities can also **intervene by developing the markets of the products resulting from these technologies** by means of initiatives supporting the demand ("***market pull***"): for example, via take-over programmes with guaranteed tariffing, like the "green certificates" formula. This stimulation of the demand is likely to make investments in clean technologies more interesting for venture capital investors.

Finally, it arises from the analyses that a **public mechanism seeking to facilitate the access of the companies of the *Cleantech* sector to financing must associate instruments of the "technology push" and "market pull" variety, relying on a stable and coherent environmental policy, in order to prevent investors having to add a regulatory risk to the aforesaid technological and commercial risks** .

After this summary of the main conclusions and recommendations derived from the review of the literature relating to the financing of young innovative companies, we would draw the reader's attention to one last point.

Although the academic literature sees in the acquisition of a holding the first instrument of financing of young innovative companies, another way of financing merits attention: **the subordinated loan.** Compared to participation, the subordinated loan is less risky for the investor: in the event of liquidation, the lender is repaid before the shareholders. Moreover, the repayment of the debt constitutes an exit door with terms and conditions that are known beforehand. This formula can consequently prove to be tempting for investors. For entrepreneurs also, the subordinated loan can appear more attractive than participation: they keep their control and this financing formula is less costly (but more expensive, naturally, than a bank debt). Consequently, it is recommended not to bet everything on financing by venture capital, and to envisage a place for the subordinated loan formula, as is already the case in Wallonia.