



**PROJECT PART-FINANCED
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SUMMARY OF SURVEY

TARTU REGIONAL SEED CAPITAL FUND – POTENTIAL DEAL FLOW FOR FOLLOWING 5 YEARS

**PILOT ACTION FINAL REPORT
TARTU CITY GOVERNMENT**

Invent Baltics, Connect Estonia
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Objectives of the survey

This survey was commissioned by the Tartu City Government within the framework of the **VBN InnoReg – Strengthening Via Baltica Nordica Macro-Region through Transnational Cooperation for Regional Innovation Promotion** project of the **Baltic Sea Region Interreg IIB programme**.

The objective of the survey is to assess the demand for the seed capital fund created by the City of Tartu over 5 years.

The following activities were required:

1. Preparation of a list of the organisations (companies, R&D institutions) and individuals belonging in the target group of the Tartu Seed Capital Fund (hereinafter the TSC Fund).

The list was prepared on the basis of the following sources of information:

- a) extracts from the Commercial Register about companies engaged in research and development, information and telecommunications technologies and biotechnology;
- b) database of groups conducting applied research created by the Institute of Technology of the University of Tartu;
- c) companies and student teams from the Tartu region who have participated or participate in business plan contests (e.g. NETS 2005, NETS 2006 and Ajujaht 2007);
- d) persons in the Tartu region who are applying for funding for applied research projects from Enterprise Estonia (researchers from the University of Tartu and the Estonian University of Life Sciences);
- e) researchers from the University of Tartu and the Estonian University of Life Sciences and the doctoral candidates associated with them, who hold patents and have filed patent applications;
- f) research and technology based companies in Tartu, incl. park residents and spin-out companies that have emerged from other companies (not universities);
- g) research and technology based companies in Tartu that have emerged from universities (spin-off companies);
- h) additional information obtained about potential candidate companies from support structures (Institute of Technology of the University of Tartu, Tartu Science Park Foundation, Tartu Biotechnology Park, Centre for Entrepreneurship of the University of Tartu).

2. Preparation of a 30-member representative sample of the target group that would include respondents from different sectors of knowledge-intensive entrepreneurship.

3. Preparation of a questionnaire that allows for assessment of the demand for the TSC Fund. The questions of the interviews were prepared so we can ascertain:



- a. the number of completed, pending or intended research and development projects of the target group whose results may have a commercial output.
 - b. research and development projects where the creator of a product is prepared to invest their money and time into taking the product to the market.
 - c. the capability of the respondent to initiate more than one knowledge-intensive development and business project at a time (depends on the size of the team).
 - d. the volume of work and investments that the respondent believes are required within one year in order to take the commercially most attractive ideas to the market.
 - e. sources of funding that the target group representatives plan to use to finance the completed or intended research with a commercial output.
 - f. currently existing gaps in funding that the target group representatives have experienced and that obstruct the performance of commercially aimed research and development projects and the commercialisation of their results.
 - g. opinion of the target group representatives about the number and total volume of possible projects that are eligible for funding.
 - h. opinion of the target group representatives about the attractiveness of the currently offered TSC Fund scheme (an equity capital loan in the amount of 20,000 to 1.5 million kroons at an 8% interest rate for the term of 4 years) for performance of specific business projects.
4. Based on the interview results, preparation for the TSC Fund a projection about the volume of the investment need over five years.
 5. Enclosing examples of the experience and functioning of seed capital funds in Scandinavia to the survey results.
 6. Highlighting the critical aspects that must be considered in the creation and management of the TSC Fund.

Conclusions

There are already 15 persons among the interviewed businessmen and researchers who have projects that require seed capital investments. Proceeding from the minimal investment requirements of the interviewed persons, the volume of the applications that would be submitted to the Fund would exceed **16 million kroons**. In order to guarantee that the Fund is sustainable, we need to achieve the **creation of 6-10 new knowledge-based companies per year**. Such a growth could lead to 14-20 applications a year and the monetary volume of the applications could remain between **12-16 million kroons**.

The following important questions emerged during the survey:

- What is the objective of the Fund? If the only objective is to fund innovative projects, then it would not differ much from Enterprise Estonia, banks or private investors.



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- How can the quality of the Fund's management be guaranteed?
- How can added value for the investments be guaranteed? Many respondents found that in addition to funds, access to networks and experience in taking technology-intensive companies to the international market are also required. The Fund would also have added value if they could launch a long-term action programme that would help create a bigger number of knowledge-intensive companies (impacting demand).
- How can continuing investment be guaranteed? The added value of the Fund could lay in its ability to guarantee continued financing (impacting demand).
- In order to guarantee amplification of investments, the Fund should cooperate with the Development Fund and/or private investors. In biotechnology, a branch of a Scandinavian biotechnology investment fund could be opened in Tartu.
- If the Fund's objective is to grow companies with global reach, then several millions of euros should be invested in one project, but this does not comply with the intended volumes of the Fund.
- The Fund's management and administration costs (incl. project assessment) can reach millions of kroons per year. For example, if the assessment of one business project by experts requires 50,000 to 100,000 kroons, then the assessment of just the 15 projects requiring seed capital that were found in the course of the survey would cost 740,000 to 1,500,000 kroons.
- Is the Fund prepared to cover the so-called learning costs? It is likely that Fund will be unable to immediately establish the best rules and support systems that would offer sufficient support to the supply and demand for investments at the level and with the quality expected by the City of Tartu.

Projects of higher and lower capital intensity should be differentiated in the creation of the Fund's financial scheme.

Below are some proposals for the creation of a funding scheme for projects of said two types.

Projects of low capital intensity do not have the ambition to receive continued financing from venture capitalists or they are planning to develop the company organically. (Equity) capital loans at an 8-12% interest rate and in the maximum amount of 1.5 million kroons could be considered for such projects. Funding would allow for the creation of new companies and support the development of the business environment. The funding instrument could be developed in cooperation with banks and Kredex and in a dialogue with businessmen in the Tartu region.

Projects of high capital intensity definitely need continued financing from venture capitalists. In the case of such projects, it is important for the TSC Fund to be able to participate in financing the so-called best projects that stem from Tartu and are attractive for venture capitalists. This in its turn means that strong, competent specialists are

involved in the management of the Fund, who are able to negotiate with private investors and venture capitalists and create added value in the pre-seed phase, i.e. private investors recognise the development of the project and the growth in value.

Even though participation in projects of high capital intensity requires more competence and investments, contributing into such projects will increase the probability of having an international success story. At the same time, a convertible loan may become a problematic instrument in the case of major projects, because venture capitalists may not wish to invest in companies funded on the basis of such a scheme. Therefore, it may be necessary to create a “purely equity capital investment” instrument.

The aspects that should be considered in the creation of funding schemes for projects of high capital intensity are as follows:

- Assessment of the option of handing the Fund’s management over to a private company that can participate in the capital distribution scheme – the latter would allow for involvement of professionals;
- If professionals are involved, the minimal annual fund management costs that need to be considered would be 1.5 million kroons;
- In order to participate in the phases where value increases fast and to maintain a significant shareholding until the investors exit (stock market entrance, etc.), the Fund should be prepared to invest up to 300,000 to 500,000 euros;
- Structuring the Fund’s capital must be discussed with the Development Fund and private investors.

Lessons from Scandinavian regional seed capital funds

The following regional funds were studied in the course of the survey:

Sweden

- Innovationsbron

Finland

- Vera Venture www.veraventure.fi (Petri Laine)

- Hermia Ventures www.hermiaventures.fi (Hannu Jungman)

Denmark

- SEED Capital www.seedcapital.dk (Ulla Brockenhuus-Schack)

Conclusions for Tartu Seed Capital Fund:

- Reputation is extremely important in the early stages of investment activities



- Reputation wins the respect of other market participants for the newcomer
- Professional fund management is an important criterion and incubators have decided to delegate financing activities to fund management companies
- The fund management company should be a private company
- A management team that is too weak cannot develop projects at the pre-seed capital level. Insufficient competence and networks that have not been sufficiently developed are the main problem and a critical market obstacle
- Support of funding across the entire funding chain, i.e. the financial must be able to support the inclusion of continued financing
- Inclusion of the elements of corporate venture capital is critical

Opportunities for increasing the added value of Tartu Seed Capital Fund

In addition to offering management competence and client networks, the Tartu Seed Capital Fund has another two opportunities for offering added value: impacting demand and impacting supply.

Impacting demand

Development of the deal flow of projects, increasing the investor-readiness of projects and development of suitable partnership relations are important in increasing the number of technology (incl. biotechnology) and other innovation-based companies.

The most important thing in the first phase is proof-of-concept funding, which guarantees that the initial development phase can be completed and the solution can be demonstrated to interested persons. Development of the so-called alpha-versions or the emergence of new innovations cannot be influenced and controlled with commercial motivations schemes.

At the same time, certain competitions can be the basis for realisation of development ideas, and the realisation of development ideas creates the basis for the development of an innovative ecosystem, which in its turn helps to take new ideas to the level of prototypes. Prototype competitions, where the best selections are selected and support is provided to the preparation of prototypes on the basis of such ideas, could be a stimulating project.

The existence of an alpha-version is important in order to find companies/partners/consultants or advisers who are prepared to join the development of the project. The so-called beta-phase, i.e. the existence of a demo, allows for a significant increase of interest in the technology that is being developed and to reach the phase where it can be introduced to several potential clients.

It is extremely difficult to assess the value of projects in the alpha-stage and an incorrect assessment of value can easily lead to wrong expectations or spoil the relationship

between parties. Therefore, the commercialisation report of BVCA Universities (Creating Success from University Spin-outs, BVCA/Library House, 2005) has raised the issue where equity capital investments that are made too early may not contribute to the commercialisation of projects.

In terms of demand, it is necessary to differentiate between projects with different capital requirements:

- web 2.0 projects with small capital requirement
- other software projects with bigger capital requirement/working hours requirement
- new service development projects
- hardware-based ICT projects
- material, chemistry, nanotechnology projects
- biotechnology and biomedicine
- medical equipment
- other engineering projects

Examples of increasing deal flow on the demand side:

- prototype competitions,
- innovative project competitions,
- meetings for researchers, inventors, developers, businessmen,
- events for developers that introduce business opportunities,
- covering of patent and development costs (Keksintosäätiö and Tekes in Finland, Vinnova, Nutek, Innovationbron in Sweden),
- support of the proof-of-concept financing models (e.g. Scottish Proof-of-Concept Fund)

Therefore, the main obstacle is associated with demand – insufficiently developed personal networks and limited experience in the areas of commercialisation and business promotion lead to high transaction costs. This means that the Tartu Seed Capital Fund needs to contribute significantly into the elimination of such obstacles.

Impacting supply

Supply-related instruments can easily create market distortions without reaching the desired goal. This has been mentioned in many interviews with venture capitalists.

At the same time, introducing supply-related instruments may help us to progress faster and learn in the course of actions, which would then allow us to launch modified instruments. However, allowing for errors requires a strong management team and a vision of long-term development in order to guarantee that the errors do not suffocate the initiative fully and that there is readiness to contribute in the further development of financing instruments.

Supply-related factors in Estonia:

- Fast concentration and relatively high risk tolerance of private capital



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- Certain distrust of private capital in public sector instruments
- Private capital's lack of experience in investing in technology projects in their early stages
- Insufficient networking of private capital with technology experts in Estonia and at the international level
- Lack of capital market instruments
- The big role of banks in economy

In conclusion, when creating the Fund one must consider involving private capital and the learning costs, i.e. it is likely that establishing the Fund's rules and funding schemes in an ideal manner will probably be difficult at first.

What next?

The Tartu City Government commissioned the survey in order to obtain an independent opinion and make the necessary decisions on the basis thereof. It is clear that there is a lack of financing instruments available to businesses in Estonia. The problem is particularly obvious in the case of projects whose risk level is relatively high. This survey makes it possible to decide whether establishment of a regional seed capital fund in Tartu is possible.