



IMPROVE
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Improving
Structural Funds
for better delivery
of R&D&i policies

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Action Plan

Tartu region (Estonia)

May 2022



Research &
Innovation



TARTU SCIENCE PARK
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European Union
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1. General information



Project: *PGI05786 Improving Structural Funds for better delivery of R&D&I policies*

Partner organisation(s) concerned: **Tartu Science Park**

Country: **Estonia**

NUTS2 region: **Estonia**

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The Action Plan aims to impact: Investment for Growth and Jobs programme
 European Territorial Cooperation programme
 Other regional development policy instrument

Name of the policy instrument(s) addressed: **Development Plan of Tartu City 2018-2025**

2. Introduction

2.1. Improve Project.



Structural Funds Programmes are the main policy instruments European regions have for building up Research, Technological Development and Innovation and supporting the implementation of their Smart Specialisation Strategies.

The policy instruments addressed by the IMPROVE project are mainly Structural Funds Programmes, except for the Municipal Plan for Development of Gabrovo (Bulgaria) and the Development Plan of Tartu City (Estonia), which have in common the goal of enhancing a knowledge-based regional/municipal economic growth.

Beyond their different background, scope, and particular target, these policies seek a smart, sustainable, and inclusive regional/local development by means of actions and instruments that, to a greater or lesser extent, focus on entrepreneurship, the competitiveness of regional/local businesses, employment, education and lifelong learning, innovation, research, technological development, etc.

Achieving an efficient delivery of regional development policies is crucial, not only in terms of making the best possible use of public funds but also in terms of maximising regional potentials, fighting regional inequalities, and strengthening Europe's economic well-being, as well as its social and political cohesion.

The partnership includes a wide range of regional realities, with different levels of economic development, more and less centralised administration systems, and different levels of innovation performance, as well as distinct levels of involvement in the management of the addressed policies (more strategic for some partners and more operative for others), which allowed a comparative analysis of the policymakers approaches and enriched the perspective about the management and implementation of Structural Funds.

2.2. Regional Action Plans

Produced by each partner, the action plan is a document providing details on how the lessons learned from the interregional cooperation during Phase 1 of the project will be implemented to improve the policy instrument that is addressed within their region. It specifies the nature of the actions to be implemented, their timeframe, the players involved, the costs, and funding sources.

Based on a learning process that included a State-of-the-Art report for the identification of the areas of improvement of each Policy Instrument, the organisation of Thematic Workshops on key topics shared by the partnership, the participation in 8 Peer Reviews (organised in an online mode due to the COVID-19 pandemic), the identification of good practices, the 2nd round of visit (in a face-to-face mode) for an in-depth analysis of the GPs, and close relation with the Regional Stakeholders' Groups, the action plans will be developed focusing on the improvement of the identified challenges within each region.

During Phase 2, the project partners will closely monitor the implementation of the action plans and will regularly check the extent to which the measures described in the action plan are implemented on the ground, evaluating the results of these measures and gathering evidence of success to be reported to the programme. During Phase 2 the project partners will continue to learn from each other and will exchange and build on the success achieved or on the difficulties encountered.

3. Policy context

3.1. The policy instrument



The main aim of the policy instrument Development Plan of Tartu City 2018-2025 is to develop the city of Tartu as a knowledgeable, smart, entrepreneurial, inspiring, caring, and creative city. Tartu is an academic city that aims to increase its overall entrepreneurial activity and reduce the gap compared with capital, including raising its attractiveness both as an entrepreneurship and living environment within Estonia and internationally.

The policy has defined five strategic sub-sectors of which in IMPROVE project Tartu Science Park is tackling two, especially the second:

- 3.1. Tartu as a knowledgeable and academic city.
- 3.2. Tartu as a smart entrepreneurial city.

Within strategic goal 3.2. there are the following sub-objectives:

- 1. Development of innovation and growth capacity of entrepreneurship
- 2. Development of human resource
- 3. Development of business support system & infrastructure
- 4. Support for internationalization of entrepreneurship
- 5. Development of entrepreneurial culture and reputation of entrepreneurship

To reach the desired outcome where Tartu has competitive and sustainable enterprises, a high-tech economy and is the best place to start a business, and an attractive investment environment, the Structural Funds (SF) have been defined as a key instrument to develop R&D&I. Smart and efficient use of SF is vital for the long-term success of policy and the city. The policy in hand is aligned with the national Smart Specialization Strategy and structural funds programs but could be improved to be fully impactful.



3.2. Main challenges or areas of improvement

The improvement in the management and implementation of Structural Funds by means of the exchange of knowledge and experience with other regions/countries will increase the effectiveness of R&D&I support public policies based on a better and more sustainable use of resources, better decision-making processes, and more effective governance and evaluation of the actions undertaken.

Focus areas for improvement are:

- Focus on Smart City

Connection with policy instrument: how to design/adapt policy instrument to include rapid technological advancements while considering and meeting related cultural, legal, societal, and environmental challenges.

- Focus on deep-tech and smart economy

Connection with policy instrument: how to adapt policy instrument to align and involve the interests of several different stakeholders who operate at different paces and methods. Notably academia and industry. How can policy instruments encourage and empower the emergence of new high-value-added jobs and enterprises while respecting the autonomy and decision-making of HEIs and private companies.

- Improved monitoring system of policy instrument

Connection with policy instrument: The background here is that in the digital, data-based information age there is an opportunity to gather a huge amount of data. How to do it resource-efficiently, in an automated or semi-automated manner, in a timely fashion, and translate that data into a meaningful decision-making tool?

- Better coordination and synergy between actors

Connection with policy instrument: While in some areas community and different stakeholders are working together well and in a coordinated manner, there are areas where there is room for improvement. There are gaps and occasional conflict situations between academia and industry, “traditional” industry and start-up ecosystem, “traditional” industry, and environmentally conscious citizens. The city government is

often looked at to act as an intermediary in such situations. Policy instruments could provide guiding direction and act as a commonly accepted vision of the future.

3.3. Identification of best practices relevant for the Policy Instrument



NAME OF THE GP	<p>GP: Animation of the EDP to strengthen the ecosystem of environmental management</p> <p>Facilitation of the entrepreneurial discovery process to strengthen an ecosystem of a RIS3 priority in the Centre Val de Loire region</p> <p>https://www.interregeurope.eu/policylearning/good-practices/item/5423/animation-of-the-edp-to-strengthen-the-ecosystem-of-environmental-management/</p>
OWNER	<p>PP2 DEV'UP Centre-Val de Loire CVL (France)</p>
DESCRIPTION	<p>Facilitation of the entrepreneurial discovery process to strengthen an ecosystem of a RIS3 priority in the Centre Val de Loire region</p> <p>Public decision-makers and key stakeholders in the Centre-Val de Loire identified environmental metrology and engineering for the preservation and sustainable management of natural resources as one of the main development levers for the region and have made it a priority in their RIS3.</p> <p>Various investment and animation measures have been put in place:</p> <p>In terms of R&D, the Region has invested several million euros in an RDI programme (PIVOTS: a set of 7 platforms on the environment analysis). It will continue this flagship R&D programme under with a new JUNON programme (on the</p>

use of artificial intelligence in environmental issues) and finance another programme, SYCOMORE (on precision and connected forestry). These research programmes allow for the massification of RDI efforts.

In terms of training, GSON, trains students from 15 master courses to become data scientists, in particular through additional training and interdisciplinary internships.

The numerous actors acting on the chain of environmental resources are supported in their development by dedicated incubators and clusters: 3 clusters: DREAM (on water resources and environments), Vegepolys Valley (on the value chain of plants), Agreentech Valley (on connected agriculture), and the incubator Les champs du possible (on innovative agriculture).

The public intervention focus and the enhancement of existing assets have built a coherent ecosystem and strengthened the various links in natural resource management.

Which gap/need highlighted in your Regional State of the Art can be solved by this good practice/ instrument/ initiative?

- ✓ Deep-tech and smart economy - how can policy instrument encourage and empower the emergence of new high-value-added jobs and enterprises.
- ✓ The effective management and coordination of available infrastructures.

TRANSFERABILITY ASPECTS TO THE REGION

- The transfer potential about the articulation between different policy instruments: clusters, research and development programs, and governance and structuring actions such as RIS3 priority steering committees, and other cross-cutting measures.
- How to strengthen the governance and coordination dynamics of the ecosystem within the priorities.
- How to explore new niches and market potential, as well as areas of scientific and technological opportunity.
- How to encourage innovation projects within the priorities and strengthen the ecosystem by providing "fertile ground" for them.
- Incubators: the incubator Les champs du possible.

<p>NAME OF THE GP</p>	<p>Innovation and Talent Programme</p> <p>Integrated training and employment Programme for young graduates linked to innovative activities in strategic knowledge areas for smart specialisation.</p> <p>https://www.interregeurope.eu/policylearning/good-practices/item/5449/innovation-and-talent-programme/</p>
<p>OWNER</p>	<p>PP1 Foundation FUNDECYT Science and Technology Park of Extremadura (FUNDECYT-PCTEX) (Spain)</p>
<p>DESCRIPTION</p>	<p>Integrated training and employment Programme for young graduates linked to innovative activities in strategic knowledge areas for smart specialisation.</p> <p>In 2016, the Labour Force Survey indicated that out of a total of 180,381 young people (under the 30s) in Extremadura, 44,895 were unemployed. Likewise, the NEET rates were one of the highest in the European Union, reaching 19.6%, 4 percentage points above the national average, and 9 and a half points above the EU average according to Eurostat.</p> <p>In this context, the Innovation and Talent Programme aims to improve the employability of young unemployed university graduates or those who have completed intermediate or higher vocational training under 30 years of age, through integrated training and employment actions especially linked to the change in the production model and the requirements of innovative activities in strategic knowledge areas for smart specialisation.</p> <p>The Programme is regulated by a regional decree and has already had three calls (2017, 2018, and 2020). The projects financed have a duration of 9 months, of which 25% will be devoted to training at R&D Centres or the University, and the rest to work in the promoting entity in the development of the project tasks. The training will be aimed at improving and/or acquiring competencies and skills for the performance of activities as a technologist in the promoting entity (company or private entity).</p> <p>It has been promoted by the Regional Government of Extremadura. The research teams belong to the University</p>

	<p>and regional R&D Centres. The beneficiaries are companies, associations, or non-profit organisations.</p> <p>Which gap/need highlighted in your Regional State of the Art can be solved by this good practice/ instrument/ initiative?</p> <ul style="list-style-type: none"> • Deep-tech and smart economy - how can policy instrument encourage and empower emergence of new high-value-added jobs and enterprises. • The effective management and coordination of available infrastructures. • Know-how of how the region monitors its existing policy measures.
<p>TRANSFERABILITY ASPECTS TO THE REGION</p>	<ul style="list-style-type: none"> ➤ Cooperation model linking the company, the University, and the Research Centres, and promoted by the Public Administration. ➤ Development of innovative projects in strategic areas that generate employment. ➤ Integrated training program and employment actions linked to the change of the production model and the requirements of innovative activities in strategic knowledge areas for smart specialisation.

4. Action Plan

4.1. General description



The strategy developed during this action plan will serve not only a wider purpose for the whole region but will be directly implemented into the focus area of “Development of the innovation and growth capabilities of companies in Tartu” in the Development Plan of Tartu City 2018- 2025. The policy instrument and the focus areas are today quite vague and often lack specific KPIs.

The city of Tartu is the main stakeholder of the regional entrepreneurship support. The city has selected the strategy not to do all the actions itself, but rather implement and carry out its policy through external organisations that are either founded by or where the city is included as a board member.

Start-up support by the city is currently carried out by several organisations that are responsible for different spheres – biotech, creative industry, space, or start-up support in general. Now the city has selected the focus that deep-tech start-ups or spin-offs should be supported more directly. The city has given this task to the Science Park as the organisation that already has the most experience with specific start-up support (Space, Gaming) and that has been working together with the universities and science-based teams. With the help of the IMPROVE project and the good practices from the project partners, the Tartu Science Park has been able to define a clearer vision and has helped the city to see the shortcoming in the field of deep-tech startup support.

To accomplish this and have a major impact on the policy instrument, the developed activity plan, with this action plan, will indicate the KPIs, more general needs (business support, human resources, physical infrastructure, etc.) of deep-tech start-ups, collaboration possibilities with local industry, and the city, piloting possibilities and so on. This all will be fed to the focus area Development of the innovation and growth capabilities of companies in Tartu together with the financial and organisational needs for implementation.

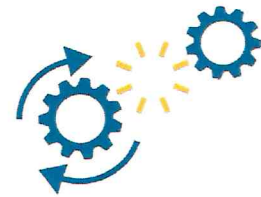
4.2. Action 1

4.2.1. Summary of the action

Context of the Action Plan		Instrument to be improved	Development of the innovation and growth capabilities of companies in Tartu													
Policy instrument tackled		Development Plan of Tartu City 2018-2025														
Name of the ACTION 1		Priority														
Develop an activity plan for the deep tech start-up support ecosystem in Tartu																
Activities		Funding Sources	Costs	2021				2022				2023				
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
1	Mapping of the current state of deep-tech start-ups and ecosystem in Tartu and Estonia (including the business and prototyping services and infrastructures available)	Tartu Science Park, SmartCap	25 000				X	X								
2	Establishment of dedicated focus area groups – Smart city, start-ups, deep-tech, industry	Tartu City Government	5 000					X								
3	Organising roundtables and strategy meetings with international, national, and regional stakeholders (governments, universities, companies, start-ups, support organisations)	Tartu Science Park, City Government	10 000						X					X		
4	Designing the deep tech start-up support strategy for Tartu city	Tartu Science Park, City Government, University of Tartu	20 000											X	X	
Players Involved		Indicators/ Monitoring														
Responsible		Indicators														
A	Tartu Science Park	Initiation, execution	1	Number of interviews with key persons and organisations												
B	University of Tartu	TTO support, start-up/spin-off source	2	Number of people participating in the roundtables (persons per event)												
C	Tartu City Government	Funding, the policy owner	3	Number of companies or start-ups from deep-tech involved in the strategy activities												

4.2.2. Relevance to the project

One of the keys to the success in Tartu or Estonia, in general, has been the government support for the ecosystem, helping it gain momentum. The initiatives such as different incubators and accelerators, and pre-incubation programmes for students, have been well-received by the start-up community, however, we are lacking the link between start-ups and corporates.



Furthermore, although Estonia is counted as a strong innovator on Regional Innovation Scoreboard, the digitalisation and innovation rates of the companies leave much to be desired. The same can be said in the case of Tartu – recent years have shown huge growth in ICT and start-up sectors, however, the connection to the industry and also the uptake of scientific outputs from the higher education institutions and research technology organisations has been lacking.

Through the IMPROVE project, it became evident that regions like Centre Val de Loire and Extremadura have identified and prioritised the entrepreneurial discovery processes to strengthen their RIS3 and ecosystem. With identified themes like research valorisation and high technology start-up creation, environmental metrology and engineering for Centre Val de Loire or linking young university graduates to innovative activities (The Innovation and talent programme (PIT): fostering talent in the regional SMEs, and the Office for Innovation (O4i): a tool for the connection between SMEs and R&D providers) as Extremadura, the regions are building on their strengths. Those two examples have shown Tartu, how to effectively manage the available resources and infrastructures and what could be the coordination activities for fostering the regional ecosystem. Furthermore, there is a direct link between the example regions and Tartu not only in the case of higher education institutions but also the focus – smart economy and deep-tech could be the priorities in Tartu, where we are benefiting from the supportive public administration, bright minds from academia and the energy from start-ups. This support would not only have a significant effect on the local level but also create product-market fit to have a significant impact on a variety of global challenges.

4.2.3. Nature of the Action

For such reason, we are planning to elaborate and create an action plan for the “Development of the innovation and growth capabilities of companies in Tartu”. The Development Plan of Tartu City 2018-2025 is a dynamic document that is reviewed and approved by the city council each year. As Tartu Science Park has been founded by the City Government and plays the role of helping research ideas into businesses, we are directly linked and also contracted by the city government to fill this role. Nevertheless, there are several actions to be done influenced by the good practices of the IMPROVE project to have a more concrete focus for the next years.

The IMPROVE partnership has indicated that regional governments from France, Spain, Finland, and Bulgaria all have either introduced or are planning to introduce deep-tech empowerment activities in their policy documents.

This action plan describes only the activities that are prerequisites to the bigger changes in the ecosystem, where sustainability, digitalisation, and economic transition are on the frontier.

The objective of the action is to develop a strategy for the deep tech start-up support ecosystem in Tartu.

1. Mapping of the current state of deep-tech start-ups and ecosystem in Tartu and Estonia (including the business and prototyping services and infrastructures available)

Similarly, to the research valorisation and high technology start-up creation activities in the Centre Val de Loire region, we start with the bottom-up approach. We also do not need a new structure, but rather a coordination and a strong consortium that can be led by Tartu Science Park.

In order to create an ecosystem development strategy, Tartu Science Park will lead the ecosystem mapping activities and plans the following activities to obtain input for the development of a long-term development strategy:

- a. Interviews with key people (up to 15 interviews) with major development projects and organizations of the ecosystem (researchers, technology development centers, technology transfer units at universities, science parks, accelerators, investors, public sector, start-ups, mentors, etc.). With those interviews, we are planning to find out the key motives and vision of the organisations and people working in the field, map the key issues, motives and needs;
- b. Desk research on the available reports and agendas on a local, national and international level (including the regions of Centre Val de Loire and Extremadura).

2. Establishment of dedicated focus area groups – Smart city, start-ups, deep-tech, industry

Tartu city has had the coordinating role regarding business development activities in Tartu, developing the strategy and funding and executing the support activities to companies via close partners (i.e. Tartu Science Park). Yet the activities have been rather general or have been based on the current focus of the politics or external funding. 2020 indicated a year, where Tartu city changed its strategy and created focus area managers in order to have a more structured development plan, be more independent from the external influencers, be closer to companies and build a stronger regional ecosystem (quadruple helix). The good practices of the IMPROVE partners have shown that this is a needed change and now we aim to tackle the challenges of companies and the ecosystem by creating focus area groups including a variety of stakeholders from industry, academia, government, and social actors. Tartu Science Park is one of the most important members of this ecosystem and as the strategic plans of the Tartu Science Park match the focus areas, we will help the city jointly create and execute its policy. We will participate in strategy meetings, acquire information from the companies based in the Science Park premises and incubation programmes and help in any way possible to face the challenges of companies and the ecosystem.

3. Organising roundtables and strategy meetings with international, national, and regional stakeholders (governments, universities, companies, start-ups, support organisations)

Organizing roundtables and a vision conference: wide-ranging publicity and discussion conference that is public and includes a panel, key ecosystem actors, external experts, and listeners. The current state and development vision of the ecosystem will be made public, and the development of a strategy will be initiated. The aim of the conference is to involve the wider public in the discussion and to move forward into niche groups by niche or a problematic section. One possibility is to organize it as part of a larger conference (panel, seminar), Latitude59, and/or sTARTUp Day.

4. Designing the deep tech start-up support strategy for Tartu city

As the final activity, analyse and synthesise all the information gained and design the deep-tech strategy for Tartu. Present it during the yearly roundtable of the business support ecosystem.

As a summary, we took the examples from the Centre Val de Loire region and Extremadura on how they involved different stakeholders in start-up creation support, how they created dissemination and exploitation activities to the target groups, and how they created and matched specific funding and innovation programmes with the needs of the industry and ecosystem.

4.2.4. Stakeholders involved

Tartu Science Park will be responsible for the success of the action. As Tartu Science Park is founded by 4 stakeholders (Estonian University of Life Sciences, University of Tartu, Tartu City, Estonian State) all are relevant to the strategy and action plan development

Estonian University of Life Sciences and the University of Tartu are the source of spin-off companies and deep-tech ideas. Moreover, the R&D&I activities from the universities create a knowledge transfer and collaboration link with the companies, where deep-tech could provide additional value.

Tartu City and the Ministry of Economic Affairs and Communications are governmental institutions that are implementing either national or regional strategies. Tartu City is the owner of the policy instrument targeted in this action plan and can also provide Tartu Science Park with additional funds in regard to executing the action plan.

Other remarkable stakeholders to achieve the goal of this action are sTARTUp Day, Tartu Biotechnology Park, BuildIT Green, sTARTUp Lab, SmartCap, Startup Estonia, AIRE, and Tartu Business Advisory Services.

4.2.5. Timeframe

- Step 1. Setting up an interview questionnaire and selecting the key persons. April 2022
- Step 2. Carrying out the interviews and focus groups. April - July 2022
- Step 3. Initial report on the current state of deep-tech start-ups and ecosystem in Tartu and Estonia. August - September 2022
- Step 4. Establishment of dedicated focus area groups – Smart city, start-ups, deep-tech, industry. October 2022
- Step 5. Carrying out the roundtables and strategy meetings with international, national, regional stakeholders. November 2022 – February 2023
- Step 6. Evaluating the results and analysis and synthesising activities. March/April 2023

4.2.6. Cost and funding sources

The budget for the implementation of the activities of this action plan is 60 000 EUR. The funding will be covered by Tartu Science Park's existing budget, the support from the City Government, and the competitive funding from EU sources (SmartCap funds).

The funding for the activities will come from different sources and are expected to influence 12 times greater funding than the cost of the activities. The funding sources and budgets to be influenced are:

- We foresee that the activities influence the total budget of Tartu Science Park by more than 250 000 euros (including the costs for salaries, events, incubation programmes, etc);
- The activities influence the support from the City Government with more than 350 000 euros per year (city financial support to Tartu Science Park and other incubation providers, a quarter of the salaries of the focus area managers);
- Competitive funding from EU sources will amount to more than 125 000 EUR (i.e. SmartCap procurement for Deep-tech ecosystem)

4.2.7. Monitoring of the activities

During the implementation phase, Tartu Science Park will monitor and implement the Action plan, and collaborate with several stakeholders in order to organise online and hybrid (online and physical) meetings with the stakeholders involved brought out in 4.2.4.

Monitoring of the action plan implementation will be ensured on a regular basis by Tartu Science Park's project manager involving colleagues and stakeholders where needed. The action plan monitoring framework consisting of output indicators for each of the actions will be used as the main tool for monitoring. Although some actions are not under the direct influence of Tartu Science Park, we contribute to the efficiency of the implementation of the actions (information change, funding, lobbying, etc).

Output indicators:

- Number of interviews with key persons and organisations (15)
- Number of people participating in the roundtables (15 persons per event)
- Number of companies or startups from deep-tech involved in the strategy activities (20)

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