

DTP1-184-1.1 „RI2integrate”

Embeddedness of high quality research infrastructures in the Danube Region

5.2.2 JOINT SCIENCE PARK ACTION PLAN

Magurele, 2019

PP 2 IFIN-HH

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1. GENERAL

The Danube Region is one of the biggest macro regions in Europe. It has a surface of more than 800.000 square kilometers and 115 million inhabitants. There are huge gaps among the 14 countries in the region (9 EU Member States- BG, CZ, DE with only Baden-Wuerttemberg and Bavaria laender- HR, HU, AT, RO, SI and SK- 3 accession countries (MN, SRB and BH) and 2 neighboring countries MD and UA with only 4 regions: Cernivtsi, Ivano Frankivsk, Odessa and Zakarpattia) in economy, research and innovation and not only.

The Danube Region is a land of diversity with a real potential for development in almost all the fields of economic and social life. A wide range of gaps which have to be solved can become a source of motivation for development and change.

The gaps in economic development

The highest GDP Per Capita, in 2018, in the 9 MS was in Germany (USD- 52.559) and the lowest in Bulgaria (USD 23.156). In the accession countries the highest Per Capita GDP was in Montenegro and the lowest in Bosnia – Herzegovina (USD – 13.491). Ukraine had a 9.283 USD per capita and Moldova 7.305 USD per capita. These two countries occupied position 117 and respectively 130 in the ranking (World GDP PPP Per Capita Ranking 2019- MGM Research).

The gaps in research intensity

Research intensity and the innovation performance of the 9 EU Member States in the Danube Region illustrates the whole range of diversity from top downwards: AT, DE and SI are investing in research over 2% of the GDP (the EU target), CZ, HU and SK between 1,65% and 1,18% and HR, BG and RO between 0,84% and 0,48%.

The gaps in innovation performance

The EU Innovation Scoreboard 2019 proved that since 2011, the innovation performance in EU has been, in average, of 8.8%. The innovation performance has increased in 25 countries. Major decreases were registered in Romania (10.7%) and Slovenia (10.6%).

The published data show that in the Danube Region the innovation performance as follows:

- no innovation leader from the Danube Region from among the actual 4; in 2017, Germany was an innovation leader;
- two strong innovators, Germany and Austria, out of 8; in 2017 Slovenia was among the strong innovators;
- 5 moderate innovators, Slovenia, Czechia, Hungary, Slovakia and Croatia out of 14 and
- 2 modest innovators, Bulgaria and Romania
- the EU acceding and the neighboring countries are among the modest innovators.

It can be easily observed that, generally, the performance in both research investment and innovation are the highest in the countries in the Upper Danube countries and the lowest in Lower Danube countries and regions.

Trends in the innovation performance at the EU regions level

The 2019 Regional Innovation Scoreboard was also published. It assesses the innovation performance of the 238 regions in EU, Serbia, Norway and Switzerland. The innovation performance increased in 159 regions and decreased in 79 regions. In Romania and Slovenia all regions decreased and the majority of the regions in Bulgaria, Denmark and Germany have also decreased.

The main deliverables of the RI2Integrate project

The main objective of the RI2Integrate project is to exploit the economic development potential and to better integrate the operation of the EU's excellent R&D infrastructure investment projects through devising and implementing innovative tools for policy learning on macroregional embeddedness in the Danube Region.

The main result is the improved transfer of scientific results into the economy of the Danube Region, taking into consideration the variety of needs in the participating countries, through the improvement of cross linkages among R&D&I, SMEs, community and government.

The main outputs were the 3 tools which have been developed and tested with the active participation of designated partners for each tool for boosting macro-regional embeddedness of Research Infrastructures:

- a guide for public procurement of innovation;
- a guide for aiding research infrastructures related business ecosystem (Science and Technology Parks) and
- a roadmap for community dissemination.

The Science and Technology Parks tool will be presented in the following lines.

2. R&D, INNOVATION AND RI RELATED BUSINESS ECOSYSTEM

It is largely known and accepted that the economic prosperity and the welfare rely on innovation. The source of innovation is knowledge and the knowledge providers are universities, research infrastructures in general and people with ideas. To transform new ideas in welfare every community needs a functional business ecosystem with entrepreneurial skills and successful entrepreneurs able to transform new project ideas in viable startups producing marketable products, technologies and services. The decision makers responsible for economic growth at different levels have to organize the entire chain from knowledge and ideas to market so that each step is provided with supportive efficient legislation, well trained people with all needed skills, well thought support programs and functional schemes in a non bureaucratic environment with awareness of its need to understand risks and able to provide everything which could reduce them and easy access to public and private funding. These are the basic needs of a functional business eco environment.

The eco environment for innovation in the Danube Region has practically all diversity situations from the lowest to the highest development in economy, research and innovation which means also a wide range of complex issues in solving the problem of RI embeddedness in the region and in most of the countries. The economic growth was not always positive and the growth rate was rarely high and sound for most of the countries.

A useful indicator of the evolution in time of the research and development is the research investment. For the EU Danube Region countries the R&D Intensity levels in 2016 (% in GDP) were as follows: DE – 2.94%, AT – 3.09%, SI -2%, CZ – 1.65%, SK- 1.18% (in 2015), HU – 1.2%, HR – 0.84%, BG – 0.84%, RO – 0.48%.

Connected with the results of the policies in R&D investment, the innovation performance of the EU Danube Region countries, between 2010 and 2016, changed were as follows: SK (+5%), BG (+0.1%), SI (-0.2%), HR (-1.2%), HU (3.5%), CZ (-3.5%), DE (-3.7%), RO (-14.1%).

3. STEPS TOWARDS A SCIENCE PARK TOOL

3.1 Collection and systematization of RI related science park initiatives

In order to establish the state of the art of the business ecosystems in the Danube Region, the partners were invited to provide information on their existing science park initiatives, as well as on their countries' approaches, policies and instruments in supporting creation and functioning of RIs related business ecosystems. Two questionnaires were developed and distributed and the collected information was analyzed, presented and discussed in the RI2Integrate project meeting.

The partners were asked to provide information referring to: description of these initiatives, founders, owners, operators, homepages, types (Science Park, Research Park, Science and Technology Park, Technology Park, Association of Industrial, Science, Innovation and Technology parks, etc.), contact details, location of venues, status (operational, under construction - green field or enlargement-, planned, accreditation, affiliation), type of identity (juridical registration as for instance private joint stock company, public institution, association partnership, foundation, etc.), services provided, main statistical data, vision, mission, focus, goals and objectives, target groups, criteria of functioning and acceptance, incentives, support for innovation ecosystem and smart specialization, impact, financing and conclusions and useful suggestions for the future roadmap for forming Science Parks around excellent RIs.

Presentation of the main features give an idea of the level of development of innovation, business eco environments related to RIs, weak and strong points in this process as well as potential hints for exchange of best practice. The data provided is a good source of information on best practices and ideas of potential future collaboration. The Embeddedness Group members recommended that these data to be used as a source of inspiration for improvement of national business eco environment. The detailed systematized information was sent to all partners.

The 7 partners in RI2Integrate project (Austria– Land of Styria, Croatia, Czechia – Bohemia Region, Hungary, Romania, Serbia and Slovenia), 6 EU Member States and an Accession country, have together 65 science and technology parks with 986 tenants.

Considering that the startups are the main result of a Science and Technology Park it is interesting to mention that 5 of the partners (AT- Styria, HR, RO, SRB and SI) have a total of 520 startups out of which 405 (79%) are from Styria and Slovenia (both with a total population of 3,3 million people representing 2.9% of the Danube Region population).

3.2 Roadmap for research infrastructures related ecosystem

Roadmap for forming Science Parks around excellent RIs was elaborated on the basis of the international trends and worldwide experience and contacts with decision makers in all the fields of interest for a science and technology parks from the first steps in a STP implementation to the needs of startups founders, banks and venture capitalists. A special attention was payed to the features of the business eco environment development in the Danube Region and the contribution of the project partner countries described in their national reports.

The roadmap was developed based on the day to day experience of people responsible for launching and managing science and technology parks in a Danube Region country but also on the recognized authority of the International Association of Science Parks with a good knowledge of the success or failure factors in whole world.

The roadmap provides a guideline for setting up science and technology parks taking into account the best practices developed in the Region as well as useful information on the different approaches and results including their support programs to improve their capacity to provide useful knowledge, services and instruments.

The roadmap for forming science parks around excellent RIs is a tool aimed at facilitating and accelerating the development of business eco environment science and technology parks. These STPs are expected to provide facilities and services capable to produce long time impact effects by improving the involvement and participation of the knowledge providers in

activities with an economic impact. They will facilitate the collaboration of innovative SMEs, entrepreneurs and young people with project ideas with experienced researchers aiming at taking over ideas and research results for developing together new products, technologies and services which can reach the market via startups or technology transfers.

Main factors in establishing successful science and technology parks

Setting the foundations of a Science and Technology Park, let alone a chain of Science Parks designed to closely work together within a defined region of Europe is a critical step towards the success of this endeavor. Each individual STP within this chain has to be excellent in its resources, its research capabilities, the number of researchers and companies it will attract, and the types of entrepreneurial activity that will be developed in it. Carefully planned locations, strategically placed among various economic centers in the Danube-Region, can turn each individual STP into a large technological hub in which knowledge intensive activities will be nurtured and transformed into innovative market ideas. The expectations for Interreg Danube Transnational Program are high and its anticipated impact on the regional, national and European research, technology and innovative entrepreneurship environment is considered to be of large scale.

The development of successful science and technology parks (STP) worldwide proved that this is a complex entrepreneurial venture and its maturity can be reached, on an average, most probably in 10 to 12 years.

A step by step guide for establishing a Science and Technology Park

In order to develop the conducive environment, to create the operational, legal, administrative and financial entities and instruments and define the infrastructure components and their financing, the Roadmap for Research Infrastructures related Business Ecosystem recommends the following action planning steps in a general guideline for any STP in the Danube Region:

1. Setting the impact and targets of the STP, and development phases (according to Business Plan);
2. Clarifying the STPs ownership and governance;
3. Establishing the business and financial model of the STP management company;
4. Detailing the activities of the STP management company;
5. Developing a marketing and communications campaign towards national institutions, international market, universities and research institutes;
6. Building the value proposition for the potential Research Institutes;
7. Developing a world / regional / national level competitive package for attracting tenants of all categories to the STP;
8. Tailoring the projects with financial resources;
9. Preparation actions + studies + time scheduling of the STP phase.

Useful conclusions an proposals

a) **NEG and stakeholders**

Collection and Systematization of Related Science Park Initiatives, the Roadmap for Forming Science Parks around Excellent Research and the Implementation Concept for Research Infrastructures related Business Ecosystem were presented and discussed with experts and stakeholders, including experienced entrepreneurs working in industrial and technology parks. During discussions it was taken into account the state of the art in Romania, in the Danube Region countries as well as in European Union and in the leading high tech countries outside EU.

The main issue in the exchange of ideas and proposals was the setting up, development and future activities of the Magurele Science Park (MSP). One of the basic request for MSP was to plan and organize its activities aiming at supporting the SMEs. The SMEs representative consider that universities and research institutes are focused on the management of research

and they will not move to application area until evaluation criteria will not include the real facility to create spin-offs.

Following these discussions a lot of useful ideas were agreed as best practice to be taken into account by organizing the MSP's activities:

- the need to learn always from the best;
- gain good knowledge of the clients' needs;
- borrow the best incubation criteria from the best;
- set up soonest possible post-incubation and start up areas;
- build your own experience in startups to be able to help others;
- pay attention to building a strong networking in the area - the biggest cluster;
- train adequate people to become startup operators;
- train people for most demanded skills: technicians, marketing, entrepreneurial, managerial, etc.;
- build a good service offer for park tenants, for instance energy delivery contracts, parking places (“if not adequately approached in time it can become a nightmare”), social services, kindergartens, pharmacy, businesses, hotels, etc.;
- seize all available opportunities and use those profitable for you;
- “be where the money is !”;
- build good collaboration relations with local authorities;
- build a motivated team (“nobody gave us money, all the results are owned by the team!”);
- adopt the right approach for an ambitious vision: if you wish success, dare to the highest goals! (if not, leave it to others better prepared);
- choose products and services which you can sell on the market you know;

- develop a good technology transfer proposal that can be presented on a half A4 sheet;
- develop a technology transfer scheme to balance demand and offer; (ex when a cooperation between a big multinational and an university needs to be facilitated), you discuss the idea, the budget and the time;
- ensure access to very good resources and pay great attention on how to properly manage them;
- pay attention to the research institutes' experience in technology transfer.
- consider collaboration with universities and research institutes starting from their facilities to create spin-offs;
- include the application research premises in the MSP Master plan;
- consider science and technology parks not as an extended research facility but as a place where SMEs' people and researchers could be freely helped to develop applications initially explored in research infrastructures;
- develop Science Parks as very attracting places for SMEs;
- choose products and services which you can sell on the market you know
- develop a good technology transfer proposal that can be presented on a half A4 sheet;
- develop a technology transfer scheme to balance demand and offer; (ex when a cooperation between a big multinational and an university needs to be facilitated), you discuss the idea, the budget and the time!;
- - ensure access to very good resources and pay great attention on how to properly manage them; - pay attention to the research institutes' experience in technology transfer;
- consider collaboration with universities and research institutes starting from their facilities to create spin-offs;
- include the application research premises in the MSP Master plan;

- consider science and technology parks not as an extended research facility but as a place where SMEs' people and researchers could be freely helped to develop applications initially explored in research infrastructures;
- develop Science Parks as very attracting places for SMEs;
- involve SMEs in designing Science Parks activities in all their development stages, aiming at properly meeting their needs.

b) Others

The access to long-term funding is crucial. A network can provide plenty of services and support but “there is no such thing as a free lunch”. In order to reap the potential benefits of any network, funding schemes are a necessary prerequisite, and successfully reaching the market, their final goal.

An idea underlined by many successful STP managers/decision makers was that a potential strategy towards a high-quality STP is to use networking for accessing the best practice, available capabilities and skills. Networking is essential for the development and operation of every STP.

There is a considerable volume of best practices available in the Danube Region and a strong need for a rapid development of successful science and technology parks. The use of the existing best practice can be an advantage and therefore the development of a strong regional network and support scheme is the way to bridge the economic and technological gap in the area, by developing modern STPs in all countries of the Danube Region.

c) Conclusions

The main conclusions resulted from the project partners information on RI related science and technology parks and stakeholders were:

a) Networking is essential. It will improve social knowledge on STPs importance, create functional collaboration links among organizations, provide infrastructural support for the development of innovation, managerial and technological entrepreneurship issues leading to

startups, support training for experts, mentors and advisers; therefore networking at all levels, including the Danube Region, and exchange of best practices are a must.

b) Ensure wholesome and consistent support for:

- startups and innovative SMEs for boosting regional development;
- set-up well-established STPs with a significant economic impact;
- partnerships with knowledge institutions and key players in national innovation ecosystems;
- a strong focus on people with professional experience and practical skills who have common aspirations and are led by a dedicated leader;
- provision of a wide range of high quality tailor made services for startups and developing companies ;
- result based leadership, financial support schemes, professional management and decision making;
- development of a strong entrepreneurial culture and entrepreneurial skills keeping in mind that science and technology parks mean business.

The roadmap describes the building blocks of a science and technology park based on international best practice, the stakeholders role in the project, the main actions and the relevant decisions of the management as well as the importance of a good business plan.

4. THE IMPLEMENTED CONCEPT FOR RI RELATED BUSINESS ECOSYSTEM

The implementation concept is focused on presentation of the best practices around the world and it took into consideration the diversity of approaches in the Danube Region and the need for networking and collaboration. It is to be noted that this approach was in line with NEG recommendation “to learn from the best”.

The implementation concept is mainly based on the wide world experience of the International Association of Science Parks and Areas of Innovation (IASP), an active world network of managers of science, technology, research parks, innovation districts and other areas of innovation with over 380 members in 77 countries involving more than 115.000 companies, which assist the development of new parks and areas of innovation.

It was drafted and distributed to RI2Integrate project partners and to the science and technology parks pilots in order to facilitate the organization of their activities to set up and develop their STPs.

5. NATIONAL ACTION PLANS FOR IMPLEMENTATION

Science and Technology Parks (STPs) are developments of real estate (tangible) and human resource (intangible) assets in which land and buildings are used to house public and private R&D facilities, high-tech and science-based companies, support services, intellectual property and venture capital financing, planning and implementing.

A STP is a long and complex process in which several stakeholders take part.

In order to help stakeholders be aware of their roles in the science and technology parks presentation of the potential basic activities as well as the way these should be planned and implemented in order to be able to respond to the local needs a questionnaire was drafted and sent to all potential stakeholders aiming at developing the idea that without stakeholders implication the concept of their future STP will not be able to respond to their actual and future needs.

5.1 Mapping for pilot Science and Technology Park concept

The embeddedness of excellent research infrastructures in the economy may happen only if a successful, well functioning, practically, physically concentrated business ecosystem is developed around it.

In order to build such a business ecosystem there are a lot of basic issues to be understood and accepted among which at least two have to be well known from the first step:

- a science and technology park means business;
- realistic vision and missions should be defined having in mind the availability of the human resources (people with skills and entrepreneurial background responding to the local needs), the degree of interest for successful entrepreneurships, the economic force and the potential strength of the central, regional and local support including the support of the main political, administrative and economic decision makers.

A STP gives the opportunity to SMEs (RDI related, suppliers, developers, etc.) for permanent or temporary settlement within its premises. A wide range of stakeholders could be interested to support the development and functioning of this tool (roadmap for creating a STP) by additional information useful for better defining STP's activities.

Following this need a template questionnaire with the 3 questions below was drafted and distributed to the potential stakeholders of the Science and Technology Park aiming at finding their strong interest in accelerating setting up and improvement of a business ecosystems around excellent research infrastructures in the benefit of the people with project ideas and local entrepreneurs and in the development of an applicable tool able to help and support their activities as well as at checking to which extent the roadmap can cover and respond to their needs and interests:

1. the problems you are interested to solve in collaboration with the Science and Technology Park;
2. the way you expect to be involved in their solution;
3. your potential support in Science and Technology Park's functioning and activities.

In order to facilitate the answers to these questions some of the main usual activities of a STP were presented with more details for different categories of stakeholders as well as possible answers were annexed to the questionnaire.

A synthesis of the answers with some useful conclusions was an useful basis for preparing the Science and Technology Park concept implementation for the STP pilots.

The science and technology parks community in the Danube-Region needs a collaboration facility and this can be a dedicated network able to respond promptly to the member requests for support organizational learning, increased specialization, combination of resources, speedy dissemination of everything accelerating the innovation process.

During discussions of the visions on Science and Technology Parks in the Danube Region, to be included in the Roadmap, several ideas were presented. Among them two were almost clear from the beginning:

- each science and technology park needs a vision which is strongly connected with the ambitions, decision makers' support and local needs and skills;
- the need for a realistic vision for developing of the Danube Region RI related ecosystem.

5.2 The Action Plan Template for STP pilots

An Action Plan template for a science park concept implementation was drafted and filled in by the STP pilots in Romania and Slovenia and is still under implementation by the pilots from Hungary and Croatia.

Due to the complexity of the deliverables connected to Science parks, the partners with planned or initial STPs chose to contract external expertise for some or all of their contributions to their STPs deliverables.

All information available was sent to all partners with STP pilots.

5.3 Useful knowledge and best practices following the visit to the Slovenian STP pilot, Venture Factory Business Incubator (VFBI)

The discussions during the visit to Venture Factory Business Incubator developed on the premises of Maribor University were interesting and full of useful knowledge.

Venture Factory Business Incubator is the only operative STP pilot. It was set up in 2001. It became operative in 2002 and has a built surface of 500 sqm consisting in offices for incubees. Its development led to notable achievements: 35 employees, 160 startups (the first startup set-up in 2006 – INNOVA IT has now 189 employees), its main activity fields are: IT, computer science and acceleration (i.e. it helps the incubees to accelerate their development plans).

VFBI is a private company within the University of Maribor based on a hiring space contract with the university. VFBI has direct contacts with the 17 faculties but the most beneficiaries

are coming from ITC, chemistry and life sciences fields. The 70.000 students are providing young people with business ideas for the potential startups.

Funding resources are: national tenders for incubation activities, EU projects, money from companies (banks, insurance companies and other enterprises, own financial resources (mentoring services, organization of events, consultancy, startups, training for main target groups, potential startups initiators, etc.

A pool of mentors of about 100 experts (managers, investors, successful entrepreneurs) providing virtual trainings in certain fields and mentoring services.

Organization of as much as possible training sessions (beneficiaries pay around 1000 euro/each); 12 competitions yearly decide the calendar of events (an average of 4-5 workshops, weekly, with 5 to 8 participants each)

There are no restrictions in any field for the access to services; “the only restriction refers to the request for passion, work and results (activities and products)”

Venture Factory is responsible at the national level for the Start-up Slovenia Program which organizes one competition each year (results are published in the month of May).

For the P2 Program (Slovenia Enterprise) the distributed support grants the of 25,000 euro; 300,000 euro funds are available for management in kind projects. The candidate projects have to respond some criteria such as how big is the company capital and if the owner has a minimum of 25% of the capital and if he is full time employee of the company

Participation of the University professors with innovative ideas has no restrictions but it is not so often as hoped by Venture Factory. The professors can have own businesses but they have to conclude a special memorandum with the University for own businesses or patent valorization.

The KBM Bank plays the role of venture capitalist or business angel. After the crisis many beneficiaries are looking for foreign business angels.

At the question what would be the recommendations for a the start of a new similar business incubator the answers were referring to the most important issues such as:

- the program;
- ensuring involvement of competent people not only from university;
- decision on the services to be provided;
- promotion in the big towns which could provide public and private clients;
- involvement of skilled experienced people from the private fields who can provide trainings in management and acceleration of the businesses;
- ensuring financial reserves for businesses for the periods when there are not tenders for businesses.

The following issues were mentioned as potential major problems:

- funding and market which represent the survival environment;
- experience which is the basis for training courses on dedicated or requested issues;
- collaboration in EU and national projects (association of incubators, people groups with practical capabilities, good programs (but not „very intelligent” because they are focalized on different fields);
- a supportive business Eco environment (ex. possibility to register a company in one or two days);
- salaries (for a net salary of 2000 euro the company has to ensure a 3800 euro; the states are „taking” between 16-42% from the gross salary; compared with Slovenia the costs in Austria are 18% lower)

Other issues

- access to the university labs can be ensured by contracts with university faculties;
- lack of access to more space led to fewer startups;

- the development of Venture Factory was based on assimilation of best practices from everywhere in the world; following to this approach now the range of services offered is much bigger than at the beginning;
- since 7 years the funding is made on implemented activities not on salaries;
- incubators have to promote the building of their own application via subject innovative environment;
- possibility to get loans for SMEs;
- support from ministries, agencies, local authorities and associations via support programs ;
- importance of communication with the future clients:
 - question for students: what do you want to achieve?
 - question for entrepreneurs: how much money do you intend to win ? (winning money is not something bad and it is a natural attraction for these people) ;
 - question for professors: what is your interest? (usually the professors need articles which bring them point for their career and not businesses).

5.4 Training Seminar on Science and Technology Parks: operation, financing, best practices and contribution to the development of Regional Competitiveness”

The training seminar was aiming at delivering theoretical and practical knowledge of European and international experience in the operation, financing, best practices and contribution to the development of the Regional Competitiveness of science and technology parks.

The leader of the seminar was strongly involved in the preparation for the setting up of The Magurele Science Park. Based on his practical involvement in development of specialized infrastructures for enhancing entrepreneurship and competitiveness such as innovation financing schemes, innovation parks and zones, business areas, science parks and technology

incubators and his experience as co-investor in over 25 startups and early stage innovative companies in biotech, ICT and energy sectors he best practice and useful knowledge on different stages in developing a successful business eco environment supporting new project ideas worldwide.

The main issues in the life of a Science and Technology Park was presented mainly based on Greek experience, taking into account European and international trends and achievements with practical references to the development issues of Magurele Science Park and other STPs in the Danube Region and beyond it.

Presentations and discussions were focused on developing, operating and financing science and technology parks, best practices in: strategy, business planning, operation and governance, science and technology park networking, financing in various development stages development of Regional Competitiveness and Innovation Entrepreneurship Initiatives with the contributions of Science Parks mainly via university entrepreneurship and university preincubation issues and city living labs and cluster development.

The training seminar was attended also by university professors and decision makers from the Republic of Moldova.

6. THE FOUR SCIENCE PARK PILOTS

The aim of the Science and Technology Park concept implementation was to deliver a framework for Research Infrastructure related business ecosystem development, offering an important opportunity for SMEs, knowledge providers, R&D related suppliers, developers and other important stakeholders the possibility to settle temporary or permanently in the available premises.

The Roadmap for forming Science Parks around excellent RIs was tested in 4 pilots, in different development phases, which addressed the following challenges in the field:

- Finding and declaring common interest and possible intervention,
- Landing and incubation issues,
- Funding opportunities and solutions,
- Networking, facility sharing.

The four pilots have been implemented with the involvement of five partners in the following locations:

- Croatia: INOVAcija (PP 5) – Centre for Creative Industries, in Zadar;
- Hungary: CTRIA (PP 1) – The Centre for Agricultural Research of the Hungarian Academy in Martonvasar;
- Romania: IFIN-HH (PP 2), MHTC (PP 7) – Magurele Science and Technology Park in the proximity of Horia Hulubei Institute for Physics and Nuclear Engineering (ELI-NP) in Magurele town;
- Slovenia: University of Maribor (PP 6) – Venture Factory Business Incubator located within the Institute for Entrepreneurship Research in Maribor.

A template for the Action Plans of the pilots was drafted and distributed. The pilots focused on the local challenges and needs, but transnational knowledge sharing actions will be implemented as well to capitalize the transnational character of the partnership. The concept

of science and technology parks (STP) are on different development level in the locations of the piloting partners: - in case of the University of Maribor they will work on how to better improve the cooperation between the university and the business incubator related to it, while, in the other cases the partners will draw up the concept of a science park that will be established in the future.

In this scope the partners were asked to work on the topics as follows:

a) ***operational Science Park***

Present the implemented Science Park activities with their recommendations for best practice tools and procedures which can be taken over in the Joint Action Plan as well as their planned new developed activities to be carried out in the next two years.

b) ***non-operational Science Parks***

Present the already implemented and planned activities for their future Science Park development (activities developed in house, activities with which its collaborators become familiar after training in a running STP or which are well understood do to its training opportunities) which they consider it may be proposed to be taken over in the Joint Action Plan.

The basic data of the four pilot Science and Technology Parks, their achievements as well as their Action Plans for the next two years are presented in the annexes 1, 2, 3 and 4.

7. JOINT ACTION PLAN

No	Action	Short description	Due date	Institutions involved
A. Finding and declaring common interest and possible intervention				
1	<i>Set up a Danube Region Network of Science and Technology Parks</i>	<i>The science and technology parks community in the Danube-Region need a collaboration facility able to respond promptly to the network members requests for support to solve their specific needs. The network could facilitate the access to the existing specific best practices and specialized human resources capabilities available at the other members</i>	01/06/20	MSP and the STPS in the Danube Region
2	Build a pool (data bank) on specific specialized experts at national and Danube region level and an information tool on the existing best practice on the basis of the members offers	Information will be provided with the respect of the GDPR rules by matchmaking needs and offers for the most needed services and skills as for instance: <ul style="list-style-type: none"> – trainings; – entrepreneurial skills – specific management for STPs, business incubators, startups, spin-ofs, accelerators, European programmes and projects, etc. – mentorships; – venture capital; – IPR, etc. 	30/09/20	MSP and the STPS in the Danube Region

3	Design support exchange programmes and schemes for outsourcing experiences managers, successful entrepreneurs, experts in venture capital and IPR, etc.		15/12/20	DRNSTP with the support of STPs members and local and central authorities
4	Use EU existing programmes, knowledge and schemes	For instance the ERASMUS for Young entrepreneurs,	Permanently	DRNSTP members
5	Help countries, regions and towns interested in solid growth based on the development of innovative projects to set up favorable conditions for local people with innovative business ideas by providing knowledge and bestpractice information	Provide opportunities to access adequate skilled people and outsourcing schemes	Permanently	DRNSTP together with advanced and experienced STPs
6	Provide decision makers in the Danube Region with reports and updated information on the results and development trends in the innovation ecoenvironment in the regions and countries		Annually	DRNSTP
7	Organize a focal point for information on all events in the region on specific issues of the science and technology parks, startups, spin-offs, technology transfer, IPR,etc. Organized by network members and other entities		01/06/20	DRNSTP with the help of its members
8	Provide decision makers with clear knowledge cases illustrating the need for a professional approach in ensuring innovation		Annually or by request	DRNSTP with the help of its members

	economic performances rather investing in outsourcing best experts than adopting a learning by doing exclusive approach (time consuming, late successful results, to costly on a long period, etc)			
B. Funding opportunities, solutions, central, regional and local support				
1	Create a funding scheme based on own resources, donors, people with financial resources with special interests in the development of business ecoenvironment		December 2021	DRNSTP, its STP members, donors, local administrations
2	Mobilize stakeholders to motivate with adequate knowledge the decision makers at European, national and regional levels to support R&D investment and increase of innovation performances to introduce these issues in their strategies and programmes and support their implementation by adequate funding, professional responsible people, effective legislation and simplified, non time consuming procedures, professional merit promotion and adequate competitions and awards		December 2021	DRNSTP with the help of its members, ministries and local administrations
C. Networking, facility sharing				
1	Facilitate national and European networking organisations and activities of science and technology parks, business incubators,		Permanently	National, regional and local decision makers DRNSTP and its members

	start-ups and spin-offs aimed at spreading best practices;			
D. Consultations with RIs and companies including SMEs about science park activities				
1	Keep permanently in touch with local SMEs when promoting STP's activities looking for their real needs and provide them with good access to useful applicable knowledge and people		Permanently	DRNSTP and its members, local SMEs networks
2	Inform and motivate stakeholders to look for young people with good quality education, creative power and train them for the development of the entrepreneurial skills starting with approaching them at a very early age	They will be the basis of the development of successful spin-offs, startups, SMEs	Permanently	DRNSTP and its members in collaboration with high schools, universities, and vocational training organisations

8. CONCLUSIONS ON THE NEEDS LED TO JOINT ACTION PLAN

The Danube Region is characterized by:

- different level of development in all cultural and socio-economic aspects of daily life not only at the level of countries and European regions and but also in the small or larger communities;
- many gaps in the fields connected with the development of RI business ecoenvironment as for instance economy potential, education, research intensity, innovation performance, availability of well skilled human resources;
- some of the countries and regions were strongly affected by the big political and economic changes at the end of the last century;
- brain -drain, brain waste, emigration, fight for survival at the lowest education level and so on;
- different levels and capacities to addapt to the new culture and new socio-economic conditions for enterprises, universities and people with entrepreneurial skills.

The embeddedness of research infrastructures in the new business ecoenvironment was slow and in strong dependence on the availability of human and financial resources as well as on the capacity of central and local administration and decision people to understand and react to the changing work conditions.

The collection and systematization of the research infrastructure related business ecosystem initiatives in 7 of the 14 countries of the Danube Region illustrated the capacity to respond to the above mentioned challenges.

The Danube Region has a lot of potential in all academic and economic fields but the degree of valorization of the existing opportunities is different and in strong dependence on capacity to change rapidly the culture in almost all fields of activity, to build a real trust at all level of the society in each country, region community and even family or individual people.

There is a considerable volume of best practices which could be shared but the instruments to help this happen are almost non-existent in more than half of the countries of the Macro-region. A lot of these best practices and recommendations were presented above.

But if it would be necessary to summarize all 2 main conclusions this would be:

a) Networking is essential.

It will improve social knowledge on STPs importance, create functional collaboration links among organizations, provide infrastructural support for the development of innovation, managerial and technological entrepreneurship issues leading to startups, support training for experts, mentors and advisers; therefore networking at all levels, including the Danube Region, and exchange of best practices are a must.

b) Ensure a consistent support for:

- startups and innovative SMEs for boosting regional development;
- set-up well-established STPs with a significant economic impact;
- partnerships with knowledge institutions and key players in national innovation ecosystems;
- a strong focus on people with professional experience and practical skills who have common aspirations and are led by a dedicated leader;
- provision of a wide range of high quality tailor made services for startups and developing companies ;
- result based leadership, financial support schemes, professional management and decision making;
- development of a strong entrepreneurial culture and entrepreneurial skills keeping in mind that science and technology parks mean business.

The decision makers at all levels in The Danube Region have to pay attention to the embeddedness of knowledge providers (universities, research institutes, people with innovative ideas) in the business environment in an accelerated tempo because this approach can ensure a sound economic growth and better welfare for citizen.

The Science, Research and Innovation Performance of the EU, SIRP report 2018 concludes, among others, that:

- the EU is a global leader in scientific excellence and needs to turn this leadership into more impactful innovation and entrepreneurship;
- Europe must ensure that the whole society contributes to and benefits from innovation;
- the changing dynamics in innovation means Europe must renew its policies by adopting a mission-oriented approach and better support the scale-up of breakthrough innovations that create new markets.

The same report and other EU analyses illustrate that despite a good improvement in the Innovation performances at European level many countries in The Danube Region are well behind EU average level and the decreasing tendencies have to be reversed by an effective approach with adequate measures at national and regional levels. EU in general and the Danube Region have to tackle this reality and promote adequate measures and tools. The existing gaps in many fields could be reduced if research and development investments and innovation potential will increase by own efforts but also with appropriate support.

The analyses of the data on Science and Technology Parks in the project partner countries presented above led to the conclusion that for an effective exchange of best practices in order to get successful business ecosystem a Network of Science and Technology Parks and Startups in the Danube Region will facilitate an increase of the capacity to respond to the needs at all levels. The tentative activities of this Network presented above could be established in a meeting of all categories of stakeholders.

ANNEXES

National Action Plan Croatia

BASIC DATA ON SCIENCE PARK

Science park name and address:

Centar za kreativne industrije (Centre for creative industries), ADRESA

RI related infrastructure name and address:

Centar za kreativne industrije (Centre for creative industries), ADRESA

Owner(s) name and address:

Institucija INOVAcija (INOVAtion institution), Trg tri bunara 5, 23000, Zadar, Croatia

Operator name and address:

Institucija INOVAcija (INOVAtion institution), Trg tri bunara 5, 23000, Zadar, Croatia

Status:

Under construction – anticipated completion date DATUM

Type of entity:

Entrepreneurial support institution

Vision:

To create a new generation of creative entrepreneurs in the Zadar region who will leverage the latest technologies and trends from IT to develop new highly productive business models. The Centre will also serve as a dissemination point for information and education programs in order to raise the overall IT proficiency in the local community.

Mission:

The Centre will provide entrepreneurs with affordable workspaces, access to specialist equipment, training programs to address identified skill gaps as well as a platform for entrepreneurs to participate in ownership and planning of all existing and future activities of the Centre. The Centre will also organize events, networking meetings and open-door days to

share know-how between new entrepreneurs, experienced professionals and students and young people who are exploring their career opportunities.

Available/envisaged facilities:

- Individual and teamwork spaces (both shared and private)
- Multi-purpose and fully equipped IT classrooms
- Video and audio recording rooms
- Multifunction hall intended for conferences, large meetings, exhibitions, presentations with a movie theatre style layout and equipment.
- Exhibition space to showcase projects and initiatives

Available/planned basic skills:

The Centre will seek to provide expertise and education in the following areas:

- General business and management skills – planning, budgeting, local and international laws, etc.
- Industry-specific skills: the Centre will create a community of experienced practitioners from various industries who will function as mentors for their specific skills; this is meant to allow young entrepreneurs to access decades of experience in very specific skillsets without increasing the financial burden on the Centre itself
- Marketing and promotion skills – including both digital marketing, pitching techniques and networking practices

Focus:

The focus of the centre will be on new business models that arise from the intersection of cultural and creative industries and new IT technologies and advances. Given the very experimental nature of emerging technologies, the centre will seek to support a wide variety of entrepreneurs and business ideas.

Long term goals and objectives:

1. Support the establishment or growth of creative, cultural and IT enterprises
2. Promote new competences and skills with entrepreneurs and the wider local community
3. Facilitate knowledge and know-how transfer between experienced and new entrepreneurs
4. Actively and frequently change Centre plans and programmes to closely follow market changes and new technologies

Target groups:

1. Creative and cultural entrepreneurs and professionals
2. IT entrepreneurs and professionals
3. Local community, including students, university lecturers, enthusiasts, etc.

Provided/envisaged services:

Affordable workspaces for innovative entrepreneurs

Equipment rental, particularly expensive or high-end equipment not traditionally available to start-ups (e.g.: industrial grade 3D printers)

Education programs developed and based on entrepreneur-identified skill gaps

Public and private events for stakeholders: entrepreneurs, local community, education or governmental representatives, investors, etc.

Criteria for functioning and acceptance:

The Centre is assumed to have 6-12 members of staff from a variety of skill backgrounds to ensure the smooth running of regular activities; the Centre's network of professionals and outsourced experts will provide the remaining expertise to satisfy the needs of local entrepreneurs

The Centre is assumed operational if the following can be maintained on a monthly basis:

1. At least 4 in-house entrepreneurs (preferably 8)

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www.interreg-danube.eu/ri2integrate

2. At least 35% of Centre spaces are utilized on a daily basis (preferably 55%)
3. At least 100 members of the Centre network within the first year of operations

Criteria for acceptance into various Centre programs or activities depends on the type of activity:

1. Space and equipment rental – established entrepreneurs or persons in the process of establishing their enterprise
2. Training – depending on the training program, open to both entrepreneurs and members of the local community
3. Networking – open to entrepreneurs and local community

Incentives, awards, access to support programs (granted, received):

Considering the Centre is currently under construction, the only currently active program is the initial EU project required to co-finance the design and construction of the Centre alongside existing funds secured at local county level.

Programs for supporting entrepreneurial training, innovation schemes, spin-offs, start-ups:

Although there are initial plans for a number of activities, these have yet to be vetted and approved by a statistically significant portion of the identified initial target group. Centre staff are in the process of fine-tuning program and project proposals following feedback from entrepreneurs. Upcoming workshops and meetings should produce a consensus and a full list of initial activities.

Impact:

The Centre is expected to support the goals of the Creative Zadar strategy both in its current iteration and the new strategy being developed for the next programming period:

- - Urban renewal

- o The Centre will encourage entrepreneurs from various fields who wish to enhance the quality of urban life from various aspects – organizational, transport, architectural, entertainment, ecological, etc.
- Creative entrepreneurs
 - o The Centre is one of the key steps in the overall strategy as most of the work in supporting creative entrepreneurs will be handed off to the centre
- Inclusion and cultural tolerance
 - o The Centre will seek to both celebrate differences and seek high-tech solutions for challenges presented by any kind of exclusion – whether it is social, physical or mental. The exact activities of this pillar are yet to be determined in cooperation with the City of Zadar and Zadar County
- Zadar for the young
 - o Demographic changes have posed a challenge to local entrepreneurs as a fair number of young people migrates to other Croatian cities or abroad; the Centre is tasked with presenting positive local stories to provide good practices and examples of building sustainable and modern business models in order to encourage more young people to settle permanently.

Financing sources:

1. Fees for Centre services and space rental
2. Budget lines from local government
3. Larger projects from national government
4. EU funds or projects

ACTION PLAN

Processes	Planned Action/Measure	Necessary Support	Target date for completion
Completion of the construction	The Centre has already received most permits for operations, pending final usability check once the construction is completed	Currently no support is required for this measure	Q3 2020
Activity planning	Centre activities are currently being designed and tested/approved in small entrepreneur focus groups.	Examples of good practices in engaging local entrepreneurs and developed questionnaires for measuring entrepreneurs' attitudes and needs would be helpful in better developing planned activities.	Q1 2020
Secure funding for initial activities	INOVAcija staff are waiting for completion of activity planning to finalise budget lines	Zadar county finances should be sufficient for day-to-day operations of the Centre, but the Centre will need to utilize EU funds and projects in order to continue improving its operations and services.	Q2 2020
Start promotion activities	Promotion activities should immediately follow the final usability check of the Centre premises; activities will initially focus on raising awareness of Centre and its activities in the local community.	Since the focus of promotional activities and budget will be on immediate local community and potential users of the Centre, the Centre would welcome help in promoting its activities outside of the border of Croatia.	Q3 2020
First activities	Assuming the centre is operational and usable on schedule, first entrepreneurs should be utilizing Centre services by the end of 2020.	No support necessary at the moment.	Q4 2020

National Action Plan Hungary

Science park name and address: Science and Technology Park of Martonvásár, plus the pilot focused on the whole surrounding economic ecosystem

RI related infrastructure name and address:

Centre for Agricultural Research, Hungarian Academy of Sciences (MTA ATK)

Hungary, Martonvásár; Brunszvik u. 2

Owner(s) name and address: same as above

Operator name and address: same as above

Status (operational - since..., under construction -to be inaugurated..., planned – feasibility study from...): some parts are under construction, some parts are planned

Type of entity: Science and technology park (company), cluster of companies, venture fund, business incubator (company)

Available/envisaged facilities:

- Agriscience Knowledge centre
- Science and Technology Park
- Venture capital fund
- Business incubator
- Research facilities

Available/planned basic skills:

Research results: supporting the flow of technology and knowledge from RI to companies

Support in business: consultancy on intellectual property rights

Focus: The aim of the pilot is to capitalize on the opportunities of the MTA ATK in creating a business ecosystem which builds on the Agri innovation

Long term goals and objectives: Martonvásár and the surrounding area will be leader in Hungary for Agri innovation with a vibrant economic ecosystem that capitalizes on the innovation capacities of the MTA ATK. The primary goal is that the flow of knowledge and technology between the research centre and the innovative companies is facilitated.

Target groups: Target groups are the innovative companies in the field of agri-science as well as professionals and researchers that are planning to start a company

Provided/envisaged services:

- Consultancy for companies
- Research facility sharing
- Common research projects of companies and the MTA ATK

- Business incubation and acceleration
- Support in internationalization and the creation of connections

Criteria for functioning and acceptance:

- R&D with capacity to create a perfect product or service,
- Profile, innovation, potential export and job creation,
- Open access to research infrastructure

Incentives, awards, access to support programs (granted, received):

For the clients: financial (subsidized prices for basic services such as renting, cost of access to facilities, tax exemptions as for instance start-up tax exemption and so on) or resulting from the quality of the services and opportunities offered by the science park (wide quality recognition of services, access to top level RDI facilities and teams, networking with experienced entrepreneurs, best acceleration programs, networking, mentoring and training programs, etc.).

For the recognition of science park's services and results quality: public and private entities use to help science park's activities by providing assistance to connect easier with other actors in the academia or business environment, by delegating the management of some national programs or activities, organizing certain competitions or simply by recognizing the quality of work or the high level of some of its services.

Programs for supporting entrepreneurial training, innovation schemes, spin-offs, start-ups:

- Incubation and acceleration for start-ups and spin-offs: complete programme with training courses, consultancy matchmaking activities
- Technology transfer between the research institution and innovative companies
- Consultancy: business topics, intellectual property rights, lectures on latest developments and innovations

Impact: Establishment of a vibrant agri-innovation based economic ecosystem

Financing sources:

- Hungarian state funds
- EU Structural funds
- EU R&D&I funds (e.g. Horizon Europe)
- Private money: payments from companies for services (consultancy, training sessions, technology transfer), selling innovations, exits from start-ups and spin-offs

Vision of the Science Park

Martonvásár will become an internationally relevant centre of agri-innovation. The business ecosystem which will be built around the Centre for Agricultural Research, Hungarian Academy of Sciences will focus on creating monetary value from agricultural research.

Mission of the Science Park (Short summary)

The Science Park and the created business ecosystem will aim to capitalize on the business opportunities that lie in the Centre for Agricultural Research, Hungarian Academy of Sciences. The integration of the research facilities of the MTA ATK in Martonvásár offers the opportunities to implement economic development actions. The whole business ecosystem development will focus on strengthening the connections between academia, business as well as the public sector.

Detailed description of the Science Park

In the framework of the pilot action, we measured the attitude of local actors (companies, academia, public and civil sector) towards innovation and the business ecosystem. In order to examine the most important features of the current business ecosystem, we used a five-stage scale (1: very bad, 5: very good).

The closeness of the capital received the highest score amongst the measured features of the economic ecosystem of Martonvásár. This connection must be maintained in the future too, besides capitalizing on the good traffic connections, the relations between the economic actors in Martonvásár and in Budapest must be strengthened. The activity of the actors in the business ecosystem and the possibilities of establishing supply networks received around 3,5, which means that there is room for improvement in these fields. The average point of the flow of information is 3,26. All these three fields are somehow connected to the information sharing between the different actors, so measures are needed which address this issue.

National Action Plan Romania

Magurele Science Park Action Plan

Partner data

Partner: IFIN-HH

Responsible Person: Dr. Ioan Ursu

Address: 30, Reactorului Street, Magurele, Ilfov County, RO-077125, Romania

Associate Partner: Ilfov County Council

Responsible person: Remus Trandafir

Address: 3-5 Ernest Juvara Street, 6th District, Bucharest

Phone: 0751291472

E-mail: dafii@cjilfov.ro

Focus of the pilot

The problems to be solved in collaboration with Magurele Science Park (MSP)

Ilfov County Council is a public authority interested in building a strong business ecosystem, investing in filling the gap between research and business environment, supporting the innovative entrepreneurship and SMEs and an attractive international framework for research, development and innovation located in Ilfov County

Involvement in its solution

Ilfov County Council, alongside with Magurele City Council and the National Institute for Physics and Nuclear Engineering "Horia Hulubei", is the main shareholder of the Consortium who will build and operate the STP

Potential support in MSP's functioning and activities

Ilfov County Council, as the main shareholder of the STP's Consortium, will provide the financial resources to build MSP's infrastructure and buildings and will also cover operating costs

Science Park concept:

Based on the lessons learnt during the pilot phase, the actions we intend to implement in MSP for the years 2019-2020 and beyond. The concept must be based on the inputs of the target groups. Please set targets and present actions or measures you intend to work on.

In this respect, use the information from the Roadmap for Research Infrastructures Related Business Ecosystem and the Implementation concept for Research Infrastructures Related Business Ecosystem. The concept must have the following chapters:

1st part: Basic data of the Science Park (in case of a non-operational Science Park, just complete the relevant fields that you already know)

Science park name and address: Magurele Science Park, Magurele, Ilfov County, Romania

RI related infrastructure name and address: Extreme Light Infrastructure – Nuclear Physics (ELI-NP), 30 Reactorului Street, Magurele, Ilfov County

Owner(s) name and address: Ilfov County Council, Magurele Municipality, IFIN - HH

Operator name and address: SC Magurele Science Park SRL

Status: planned – feasibility study approved in May 2018, land for science park construction secured, consortium created, currently working on terms of reference for tenders for technical project procurement and execution procurement

Type of entity: Joint Venture (Consortium)

Vision: Capitalization on the ELI-NP project and the research institutes in the adjacent area of MSP, as interested parties/stakeholders of MSP. Consolidation of an organization and of an autonomous project that benefits from a continuous growth.

Mission: Participation in the strengthening of the national system of innovative entrepreneurship. Attracting and supporting talented people with the purpose of stopping the brain-drain phenomenon that takes place in Romania. Contributing to the change/modernization of the urban profile of Magurele and Bucharest-Ilfov Region. Supporting the commercialization of the research results and of the spin-off systems built within Universities and Research Institutes as well as creating a relevant culture in this field.

Available/envisaged facilities: Innovation Centre, Museum of the Future, Technology Transfer Centre, Recreation Centre

Available/planned basic skills:

- Advanced Physics and Nuclear Applications / Extreme Light Infrastructure;
- Advanced materials and manufacturing technologies;
- Safe, clean and efficient energy;
- Activation of Information and Communication Technologies and Artificial Intelligence;
- Agro-technologies and food technologies.

Focus: innovative entrepreneurship, centre of excellence, technology transfer, responding to local applied research needs;

Long term goals and objectives:

a) Strategic objectives corresponding to the preparation phase of the Magurele Science Park project:

1. Make an agreement on the MSP development strategy;
2. Identify funding sources for Phase 1 SME development by autumn 2018;
3. Establish building components MSP Phase 1

4. Document Technical Phase 1
5. Promote MSP to the innovative and research entrepreneurial community at national and international level;
6. Create an indispensable connection with the development of Magurele and Bucharest-Ilfov.

b) Strategic objectives corresponding to the construction stage of Phase 1:

1. Sign lease agreements with strategic tenants in Phase 1;
2. Establish mechanisms to generate a sustainable start-up flow and commercialize R & D spin-offs within MSP and R & D universities and institutes;
3. Involve private sector entities in MSP management and development of public-private partnership solutions both for Phase 1 operation and for further development. Achieve significant and measurable annual effects of spin-offs, start-ups and foreign technology-based companies in Bucharest.

c) Strategic goals related to sustainability and growth in the following development phases:

1. Ensure the development of the park through its own financing, generated by high-value land input, due to the success of the previous stages, and attract investors for the following phases.
2. MSP - landmark for innovative entrepreneurship in Bucharest and Romania, as well as the first option of local and foreign companies, national and international research institutes for the location of new infrastructures.
3. MSP - a substantial contribution to changing the image and character of the Bucharest-Ilfov region so that it becomes a first-class location in the Bucharest-Ilfov region, attractive even as a residential destination.

Target groups: entrepreneurs, scientists, students

Provided/envisaged services:

- Rental services for the tenants
- Advisory services
- Auditing
- Accounting
- Legal Services
- IT

Criteria for functioning and acceptance: to be drafted by the MSP's management company

Incentives, awards, access to support programs (granted, received): to be planned and developed.

Programs for supporting entrepreneurial training, innovation schemes, spin-offs, start-ups: under development.

Impact: the development of an innovative eco-system around ELI-NP, the Magurele Research Platform and Magurele Science Park.

Financing sources: own budget of Ilfov County Council, loans and EU & SEE funds

Vision of the Science Park

The Development of a state-of-the-art Science and Technology Park of national and international significance, which allows for the convergence of the most competitive Romanian sectors of Research and Innovation entrepreneurship, starting with the European impact level project ELI-NP, will lead to the development of an attractive site and ecosystem for national and international knowledge based institutions and companies and, consequently, will generate important contributions to the economic development at regional and national level.

Mission of the Science Park (Short summary)

1. To contribute to the enhancement of the National Innovation Entrepreneurship system;
2. To support the commercialization of R&D results and spin off systems from universities and research institutes and contribute to relevant culture creation in this field;
3. Capitalize on the presence of the ELI-NP project and IFIN HH Institute in the area adjacent to MSTP and as stakeholders of MSTP;
4. Develop attractive tangible and intangible facilities and a tailored entrepreneurial environment for all types of potential tenants
 - a. Start-ups / spin-offs from University and R&D Institutes
 - b. National and International R&D and knowledge development departments
5. Develop synergies with the existing Innovation entrepreneurship value chain components in Bucharest and create complementary value-added proposition for tenants
 - a. Attract and support talent aiming to reverse the brain drain from Romania
 - b. Contribute to changing / upgrading the urban profile of the Magurele city and of the Bucharest-Ilfov region
 - c. Become a self-sustainable and continuously growing Organization and project
 - d. Become a National Model of STP and Innovation Entrepreneurship Infrastructure

Detailed description of the Magurele Science Park potential

- Finding and declaring common interest and possible intervention
- Landing and incubation issues
- Funding opportunities and solutions
- Networking, facility sharing

ACTION PLAN for the phase /period I

Current stage concerning the development of Măgurele Science Park:

May 2018 – the feasibility study and the technical documentation for the development of Măgurele Science Park were received and on the basis of this feasibility study, the location for the construction of the park was identified;

September 2018 – Măgurele Science Park Association became a member of IASP (International Association of Science Parks and Areas of Innovation);

November 2018 – the administrative issues concerning the use of a 16-ha land plot in order to build Măgurele Science Park were successfully finalized;

December 2018 – the first steps in contracting a 15 million Euro loan from the EIB (European Investment Bank) were taken;

December 2018 –the joint venture contract between Ilfov County Council, IFIN-HH and Măgurele City Hall was officially signed in order to develop Măgurele Science Park;

December 2018 –the contract between Ilfov County Council and the Joint Research Centre (JRC) was signed for organizing the Science meets Regions event in June 2019;

February 2019 –the Technical Advisory Agreement between Ilfov County Council and EIB (through the Advisory Hub) was officially signed in order to develop the public procurement procedures necessary to contract the services for the development of Măgurele Science Park and for preparing its business plan;

March 2019 –measures were initiated for the authorization of Măgurele Science Park Association as an infrastructure entity (centre for technological transfer) ;

March 2019 - Măgurele Science Park Consortium initiated measures in order to be authorized as a science park.

Future actions concerning the implementation of Măgurele Science Park

June 2019 –the business plan and the documentation concerning the public procurement procedures for the technical project and the details of execution were sent to the Advisory Hub (EIB);

July 2019 –the procedures for the development of the technical project started;

October 2019 – finalization of the negotiations with EIB for obtaining a reimbursable financial support of 15 million Euro to finance the construction of Măgurele Science Park;

May 2020 – initiation of the procurement procedure to contract the execution works;

March 2021 – commencement of the execution works of Măgurele Science Park;

National Action Plan Slovenia

Basic data on the Science Park

Science park name and address: Tovarna podjetov (Venture factory), Ulica škofa Maksimiljana Držečnika 6, 2000 Maribor

RI related infrastructure name and address: University of Maribor, Slomškov trg 15, 2000 Maribor

Owner(s) name and address: same as above

Operator name and address: same as above

Status: operational – since 2001

Type of entity: type of private non-profit organization

Available/envisaged facilities:

- University Business incubator
- Research facilities at University of Maribor

Available/planned basic skills:

- Support the transfer of research, technology and knowledge from University to start-up companies.
- Support in business: guidance and support in all phases and fields of establishment and management of start-up company.

Focus: Their focus is to help start-ups develop a sustainable business model and work environment that will enable them to set up a stable company contributing to the local, national and regional start-up ecosystem.

Long term goals and objectives: Venture factory will be the leader in Slovenian start-up eco-system and become one of the most renown business incubators in the region. They will try to motivate more researchers to transfer new inventions and technologies to the market through the establishment of new start-up companies.

Target groups: Main target groups are students and researchers at the University of Maribor.

Provided/envisaged services:

- Infrastructure with co-working space,
- consultancy services by Venture Factory's team and external experts,
- provision of tools for establishing and developing a company,
- mentorship,
- workshops and trainings,
- networking,
- help at seeking financial sources,
- support in internationalization, and

- benefits such as more favourable terms when opening a business bank account.

Criteria for functioning and acceptance:

Evaluation of a business idea and its presentation.

Incentives, awards, access to support programs (granted, received):

Awards to the Venture Factory:

- Award of the city of Maribor for important contribution to strengthening the role of innovative entrepreneurship;
- MIC Network Business Award – the highest award of the global Microsoft Innovation Centres network for excellent start-up programs.

Awarded by the Venture Factory:

The Venture Factory is the organizer of the initiative Start:up Slovenia competition – the initiative provides support for start-up development from different aspects (mentoring and training programmes, information about funding opportunities) and presents “Slovenian Start-up of the Year” Award.

With participation in Start:up Slovenia competition, start-ups can get up to 40 points (of maximum 100 points) needed for state funded programmes for start-up companies.

Venture factory offers subsidized prices for office renting, cost of access to facilities at University of Maribor, or resulting from wide quality recognition of services, access to top level teams, networking with experienced entrepreneurs, best programs, networking, mentoring and training programs, etc.).

Venture factory also helps private institutions to access researchers at University of Maribor.

Programs for supporting entrepreneurial training, innovation schemes, spin-offs, start-ups:

- Complete programme with training sessions, mentoring and guidance in different stages of start-up maturity,
- Technology transfer between the university and innovative start-ups,
- Consultancy: business topics, intellectual property rights, lectures on latest developments and innovations etc.,
- Promotional events and networking (e.g. PODIM conference, Start:up Múšli).

Impact: 50+ innovative technology companies, out of which 5 have attracted private investors with 3 million EUR seed capital. 600 different entrepreneurial events with over 15,000 participants. Strengthened entrepreneurial culture.

Financing sources:

- Mainly national funding and EU projects, own funds.
- Vision of the Science Park
- To make the city of Maribor and the region Podravje an important entrepreneurial hub.

Mission of the Science Park (Short summary)

Project co-funded by European Union funds (ERDF, IPA)
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The mission of Venture factory is to create conditions in which entrepreneurial professors, researchers and students at the University of Maribor can put their entrepreneurial ideas into effect and in such a way commercialize their high-level knowledge and technologies.

Venture factory supports, examines and helps develop enterprise ideas of students, researchers and professors. The University is a unique place – it joins the open minds and fresh ideas of the students and merges them with knowledge, curiosity and experiences provided by professors and researchers. Venture factory also offers complete support of university spin off companies in their initial phase of development.

Detailed description of the Science Park

Venture Factory was established in 2001 as the business incubator of the University of Maribor and has since become a key stakeholder in its local, regional and national start-up and business support ecosystems.

The university incubator Venture Factory is an important element of the innovation ecosystem of the University of Maribor. It is focused on promoting and supporting the entrepreneurial activities of students, researchers and professors of the University of Maribor, as well as other innovative individuals as well as on helping start-ups develop a sustainable business model and work environment that enables them to set up a stable company, contributing to the local, national and regional start-up ecosystem.

Venture Factory functions within the "Entrepreneurship and innovation" pillar of the consortium RAZ:UM (Research and Arts Zone at the University of Maribor) that was developed by the University of Maribor. Within the consortium, Venture Factory develops and implements programmes for promoting entrepreneurship, consulting (potential) entrepreneurs and incubating start-up companies (spin-off and spin-out).

The Venture Factory has been successfully working for more than 10 years and its mission is to create circumstances under which entrepreneurial experts at the University of Maribor (professors, researchers and students) will be able to implement their business ideas and thus successfully commercialize their excellent knowledge and technologies. For its past work Venture Factory received many awards and recognitions, as well as a positive media response.

In collaboration with the community of successful start-up entrepreneurs, Venture Factory is building an effective support environment for start-ups in the university city of Maribor. With its work, it is contributing to achieving the future vision of development of the city of Maribor and the whole region, which we also declared in the Regional development strategy. With the program "Start:up Maribor" they want to transform the city of Maribor into an important entrepreneurial hub.

Venture Factory is taking care of the promotion of start-ups/promotion of entrepreneurship. They organize a series of entrepreneurship workshops, forums, conferences and competitions for entrepreneurial individuals and founders of start-up companies (spin-off and spinout). These events are an excellent opportunity for acquiring entrepreneurial knowledge and skills, familiarizing oneself with good habits and, of course, for networking with other participants.

Most known national initiative is Start:up Slovenia (<https://startup.si/en-us>) and regional/local initiative Start:up Maribor (<https://startupmaribor.si/en-us>).

Within the incubation phase, Venture factory offers the following support to companies:

- Business premises. Venture Factory has 500m² of premises and business teams can find their workplace in the co-working space called GeekHouse or they can rent their own office at a very low cost.
- Start:up Músli - informal meetings of the start-up community, where you can exchange best practices, make new business connections, and create collaborations between start-ups and other stakeholders from the environment.
- Imagine cup. We present the largest global competition of students in Slovenia.

Venture Factory also offers consultancy to entrepreneurs. It offers excellent consulting services and tools to entrepreneurial individuals and founders of start-up companies, free of charge. Having services and tools at your disposal eases the process of founding a company and increases the possibility of success on the market. Alongside the consultants of Venture Factory, external experts join the consulting activities in specific fields of expertise. They offer 'practical knowledge and experience' to entrepreneurs and thus they can broaden their horizons, gain new experiences and reduce the business risks they encounter daily.

Venture Factory offers the following support:

Business know-how

- 1 on 1 counselling for (potential) entrepreneurs,
- Programmes, workshops and services for students, researchers and potential entrepreneurs (on preparing a business model, early marketing, validating ideas etc.),
- Incubation of start-up companies; counselling, workshops, networking,
- Assistance for spin-off and spin-out of start-ups.

Innovating & intellectual property

Programmes, workshops and services to protect intellectual property.

Networking & matchmaking

- Organizing start-up community meetups (Start:up Músli – twice a week gatherings of the local start-up scene that allow for exchanging business stories and networking with like-minded entrepreneurs in a relaxed environment.),
- Connecting established companies with incubated start-ups, alumni start-ups and innovative individuals (Start:up Maribor Hackathon).

Infrastructure

Office space for incubated start-ups (Venture Factory has 500m² of premises and business teams can find their workplace in the co-working space called GeekHouse or they can rent their own office at a very low cost).

Funding sources

Programmes and workshops on preparation for investment for innovative individuals and start-ups (financial products P2 offered by Slovene Enterprise Fund <https://podjetniskisklad.si/en>).

Access to markets

Finding solutions for successful commercialization of innovations.