Join the SMART SPECIALISATION PLATFORM

# Conceptual development for innovation hubs and methods for managing institutional transformation in regions

Output 4.3

Interreg Baltic Sea Region

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EU STRATEGY FOR THE BALTIC SEA REGION
FLAGSHIP

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*This output has been developed based on pilot implementation processes in consultation with the lead partner and in collaboration with the Smart Up-BSR partners listed below.*











# 1. Introduction

The rationale behind this output is to tackle regional transformation through a place-based approach in the regions involved in Smart-Up BSR, specifically from the perspective of innovation hugs and the institutional transformation they require. In order to address specific regional innovation hubs key challenges through the implementation of place-based regional development and economic transformation through innovation, the regions necessitate expertise in applying specific strategic instruments. This context is echoed in the reflection papers that the regions have provided.

In addition, while the designated strategic instruments play an important role, securing a balanced evidence-based approach to policy making also needs work on safeguarding capacity building. Expertise in applying specific strategic instruments includes the capacity to lead local organisations into taking regional action. To enable local and regional organisations to induce action includes allowing institutions to go through change processes.

The basis for compiling the change management strategic instrument in this report were the actions reflected upon by actors representing all levels of stakeholders within the Smart Specialisation Strategy implementation and re-structuring processes in participating regions of Smart-Up BSR. The analysis of the activities and mobilization practices revealed the importance that the actors had assigned to their implementation pilots and the degree of participation. The scope of the activities are also a way to expose the level of success of applying institutional change management tools.

Based on the experiences with the Smart-Up BSR partners a conceptual framework functioning as a change management tool through a set Organisational Innovation Competences was developed and discussed in the book **Strategic Instruments for Sustainable and Entrepreneurial Capacity Building**, published online at: https://smartup-bsr.eu/wp-content/uploads/2020/10/Smartup_Strategic_Instruments.pdf.

This output is a concept report, which is geared at providing assistance to regional actors in managing institutional transformation.

## 2. Conceptual background and methodology

The aim of the conceptual framework in this output is to enable regional success stories and speed up the use of best practices based on development steps for placed-based innovation ecosystem. In each region these development steps need to guide the region to apply the concepts in a manner fitting to the need of the region.

The concept is derived from systematically integrating Innovation Camps´ and RIS3 implementation with regional pilots and learn from the knowledge they have produced. This is then combined with change management instruments in order to influence future innovation activities. The results is a widened conceptual framework that comines the use of specific steps for integration of Innovation Camps within the regional innovation ecosystem with the organisational change management tools.

| Steps for RIS3 implementation | Organisational Innovation Competencies |
|---|---|
| 1. Identifying Regional Needs and Potential<br>2. Formulating Strategic Intent<br>3. Identifying Stakeholders, Users and Customers<br>4. Designing Activities and Offerings<br>5. Engaging Value Network<br>6. Orchestrating the Ecosystem | 1. shared strategic perspective;<br>2. showcasing integrity and inclusion;<br>3. engaged strategic leadership;<br>4. building and maintaining partnerships;<br>5. results orientation;<br>6. sustaining agility;<br>7. emphasizing solutions;<br>8. communicating effectively. |

**Table 1** Framework for the conceptual background

In combination these steps and tools represent a conceptual framework for development. The steps and the tools will be described in more detail the next sections.

The conceptual whole, which includies organising the work of hubs and using change management instruments, allows mobilising joint methods within a region, while enhancing the awareness of the particular region.

In the next section we will first introduce the steps that are used as a lense for the Innovation Camps activities in applying the RIS3 implementation and then in the following section we describe the organisational innovation competencies that support regional transformation.

Linked together these steps and tools form a conceptual whole that is necessary as a starting point to put into practice any deverlopments fit fo the need of the region and leading to develop an entrepreneurial region.

The participating BSR regions have incorporated the specific elements of the conceptual framework in their activities and in thier Innovation Camp events and follow-up. The lessons learned and the assessments of the usefullness of the conceptual approach for speeding up their place-based best practices have been collected in reflection papers by each partner.

# 3. Organising the work of hubs for the mobilisation of joint methods

The participating regions have reported in their reflection papers how they have applied the steps for RIS3 implementation in order to organise the institutional development and transformation that can secure the success of innovation hubs.

Among the regions that have been able to organise the work of hubs the Brandenburg region and the Helsinki-Uusimaa region have reported good results. All partner regions in the Smart-Up BSR project have reflected upon the place-based need for organising innovation hubs and have therefore applied the steps required.

The steps to be systematically integrated with the regional best practices as presented in the conceptual framework above are now briefly described from the perspective of what each participating region needs to attempt in their RIS3 implementation.

The six steps introduced as a guiding the entrepreneurial region activities for innovation hubs and to be furthered through Innovation Camps activities are:

Identifying Needs and Potential

> Consider the RIE and RIS3 specific needs that you are going to work on. It is important to analyse the RIE from different viewpoints in order to identify regional, national and EU/global potential.

Formulating Strategic Intent

> It is necessary to analyse the context in which the actors operate, as well as how the context will likely evolve in the future. This understanding makes it possible to develop a shared vision and a strategic intent. It is then possible to analyse what kinds of competences should be developed internally and externally, i.e. with the help of different networks.

Identifying Stakeholders, Users and Customers

> This entails analysing who the main stakeholders and customers are, as well as which other stake-holders might influence, i.e. help or hinder, the realization of the strategic intent. The analysis of the social context in phase 1 is closely linked to this phase, because expected changes in the context can significantly influence the behaviour and needs of different stakeholder

groups. It is important to critically consider ways in which different stakeholders can be engaged in the future.

Designing Activities and Offerings

Consider how the products/services should be developed to realize the strategic intent and reach the intended position in the markets. Which parts of the current offering should be kept in the future? What kinds of new offerings should be developed?

Engaging Value Network

Think about which partners could help to realize the strategic intent. What competences are the ac-tors lacking? Who has these competences? Which key stakeholders will influence the markets in the future? Is it possible to build partnerships with these stakeholders?

Orchestrating the Ecosystem

Once the actors have established a network within which they operate, it is necessary to manage and further develop this particular 'ecosystem'. It will be critical to manage many simultaneous rela-tionships to the benefit of all parties to keep everyone motivated. At the same time, a single actor is likely also part in other ecosystems.

In the following section we are describing the organisational innovation competences that support the mobilisation of joint methods, help organising the work in innovation hubs, and ensure the ability to use change management instruments.

# 4. Organisational innovation competences tool

When regions' innovation actions need to involve relevant stakeholders in open and bottom-up processes they need competencies that allows them to manage the process of enrolling ideas, to manage the reflective process of balancing issues and stakeholder interests, and to lead to actions that can be measured in a way that results can be utilised by different stakeholders.

Therefore, in addition the six steps for RIS3 implementation as presented earlier it is helpful to be aware of the organisational innovation competences that can be used as a tool for steering regional transformation through institutional change.

For innovative results, the management processes used in solving recurrent and resolvable problems, may not be enough, as these processes tend to be based on more unilinear management acts. The leadership vs. management which is a dichotomy that is a well-known (and paradoxical) concept in organization and management studies can provide useful parallels in regional transformation.

In general, in addition to strategy creation, organizations leading regional development include actions that we could categorize under broad conceptions such as governance, management, and implementation.

It is however a balance of leadership, participation, and governance that is necessary to direct regional innovation systems towards results favourable for most actors in the region. This has been clearly observed in the activities of the partner regions. Thus, the organisational innovation competences present a tool which combined with the steps of RIS3 implementation presented earlier can contribute to speeding up the use of best practices.

One critical element from the aspect of strategy creation and implementation is asking the right critical questions from collaborating organisation and participating individuals. Another element that is needed is providing visionary guidance especially when trying to solve 'wicked' problems, i.e. those that are complex, novel and obstinate.

Therefore to reach the level competence which embraces the cross-competency and multi-disciplinary nature of successful regional and more importantly, cross-regional orchestration, new skills are needed that can handle and direct new types of interfaces: skills that allow stakeholders to act in new professional roles which may go beyond their traditional professional expertise.

Regional agencies and economic development authorities will need to function as ecosystem orchestrators, innovation architects, process mediator, roadmap curators, and activity initiators and conductors.

Based on the practical experience with regional Smart Specialisation implementation in the examined Baltic Sea regions, eight organisational dimensions can be outlined as an architecture of competencies.

The work of the participating regions in mobilising the used of joint methods for innovation hubs and apply RIS3 in their place-based setting indicates that using the organisational competences tool set is beneficial. The basic challenge it to reach the quality of strategic readiness and leadership that any of the regional innovation actors need to be equipped with as drivers of change.

The eight dimensions we propose as elements of the Organisational Innovation Competency architecture described in the table below.

| | | |
|---|---|---|
| 1 | SHARED STRATEGIC PERSPECTIVE | This reflects the level of shared commitment of the organisation and its and includes the following strategic elements: to think of regional advantages long term in order to positively shape the economic environment of the region; to develop and implement business strategies accordingly; to anticipate and perceive the impact and implications of future decisions and activities on other parts of the assets. |
| 2 | SHOWCASING INTEGRITY & INCLUSION | The organisation/actors is/are: an example in the region for treating all individuals with respect; for responding sensitively to differences and encouraging others to do the same; for upholding ethical norms; for maintaining high standards of trustworthiness; for acting as a role model for diversity and inclusion. |
| 3 | ENGAGING LEADERSHIP | The organisation/actors act/s as a positive role model contributing to the collaborative entrepreneurial spirit in the region; collaborates towards and supports the development of other regional actors; participates with positive leadership in motivating, directing and inspiring others to succeed, utilizing appropriate evidence-based approaches. |
| 4 | BUILDING & MAINTAINING PARTNERSHIPS | The organisation/actors understand/s the potential impact of its own role on all actors and partners; contribute/s to an evidence-based evaluation of the advantages and opportunities for the regional end beneficiaries; build/s and maintain/s strong external relationships; is/are a competent partner for others in sharing own competence and in learning new competence (if relevant to its role and to the partnership). |
| 5 | RESULTS ORIENTATION | The organisation/actors efficiently establish/es an appropriate course of action for the regional/cross-regional partners to accomplish a goal; match/es strategic goals with actions that lead to total task accomplishment with concern for quality; is/are geared to see opportunities and takes the initiative to act on them; understand/s that responsible use of resources maximizes the impact on the region and collaborating regions. |
| 6 | SUSTAINING AGILITY | The organisation/actors is/are open to change and geared to be flexible in a fast-paced environment; effectively adapts own |

| | | |
|---|---|---|
| | | approaches to suit emerging circumstances or requirements; is committed to constantly reflect on experiences as a readiness to modify own behaviour to maintain strategic performance and competitiveness; pursues continuous improvements in strategy revision and implementation. |
| 7 | EMPHASIZING SOLUTIONS | The organisation/actors base/s its decisions on data evaluation; pragmatically adjust/s courses of action; take/s an unbiased, rational approach guided by strategic priorities and purposefully calculated risks; constantly apply/ies innovation and creativity to problem-solving. |
| 8 | COMMUNICATING EFFECTIVELY | The organisation/actors share/s and communicate/s ideas or facts behind actions in a concise and open manner; constantly indicates in its communication a consideration for the shared benefits through collaboration partners; actively listen/s to regional actors and proactively shares knowledge; handle/s conflict effectively by finding common ground in the attempt to reach goals and overcome differences of opinion. |

**Table 2** Organisational Innovation Competency Set

What the participating regions need to take into consideration is that organisations integrating a platform to embrace, monitor, and encourage these elements in their strategic actions can relevantly perform in their attempt to mobilise innovation hubs and regional transformation.

# 5. Results in the mobilisation of joint methods in regional innovation hubs

Based on the reflection papers of the participating regions the following results in terms of mobilising joint methods can be reported. This knowledge was shared by the Smart-Up BSR partners in reflection papers. The regional partners reported on two major aspects relating to mobilising change in regional innovation hubs:

1. Obstacles and assets in RIS3 implementation of innovation hubs
2. Lessons learned and recommendations for regional innovation hubs

| Denmark / Aarhus |
|---|
| 1. Obstacles and assets in RIS3 implementation of innovation hubs<br>The network called GeoMidt, which is a cross-municipal network for GIS-experts has an ambition of establishing an IoT network. This network is a collaboration between the 19 regional municipalities on geodata. There can be made great synergies with the IoT & GovTech center here.<br>The Business Region Aarhus has already worked with an IoT challenge focused on mobility, so early experiences from using the technology from other municipalities can be collected and used as a foundation for the center.<br>Aarhus Municipality's existing collaborations with IoT SME's are helping shape the legal framework for testing/demonstrating IoT/Smart City solutions. So experiences from legal aspects can also be fed into the center from this activity.<br>However, since the uptake of IoT is happening at such a fast pace, it also means that it is a challenge to align activities and interest. Many new networks and projects are created, so it is important to try to keep the overview of these, to ensure that experiences from other projects and stakeholders are transferred to these initiatives, so the same mistakes are not repeated. Another hinderance to some degree is that the Central Denmark Region cannot take part in business support activities after the recent form of the business support system in Denmark. This means that there are some of the business aspects of the center, which they cannot co-develop. The IoT startup scene is also still emerging and could be stronger to support the local development of IoT and GovTech solutions even more. |
| 2. Lessons learned from regional ecosystem development in the Aarhus region<br>▪ IWDK, the annual digital festival in Aarhus, is a platform that can be operationalized even more by having to develop the Smart City solutions of the City. We encourage stakeholders from the whole quadruple helix to reach out to each other and collaborate on making each others initiatives even more meaningful and relevant to society. IWDK is all about co-creation and debates about how our city and society in general should develop and be a livable place for our citizens. This level of openness and curiosity between the stakeholders in the ecosystem is vital and should remain a priority.<br>▪ The efforts on the developing a smart city, should be more focused on challenges experienced from the rather than being technology-driven. Therefore, six main challenges for the city has been identified. The challenges are cross sectorial and involve a broad partnership across the public and private sector, knowledge institutions and the citizens.<br>▪ A shared vision of making Aarhus a living, breathing, a global testbed for innovative Smart City initiatives will help the city sustain its momentum and end up with solutions to the City's challenges at a faster pace. E.g. we are working on combining the city's living lab with Aarhus University's new campus area that also are going to function as a living lab. Creating City Labs is a way to strengthen the Smart City market and startup scene. |

## Estonia /Tallinn

1. Obstacles and assets in RIS3 implementation of innovation hubs

   One of the strongest sides of the local ecosystem is a growing number companies that are developing their solutions. Many of these solutions have also received a chance to be tested in the real-life setting with the help from the Tallinn City Government and/or other actors such as Tallinn University of Technology, Tallinn Science Park Tehnopol or Mainor Ülemiste. Several companies have also managed to attract investors such as Bolt or Starship Technologies. The new Cross-Border Smart City Center of Excellence has great potential to support the development twin city smart solutions for Tallinn and Helsinki which can also benefit the local companies. Tallinn City is also home for several universities that do research and provide higher education that can further support the smart city developments.

   However, several challenges exist in the local ecosystem that hinder the development and adoption of smart city solutions. First is a lack of user perspective as currently there is not a single organisation that is actively providing the perspective of local residents.Another issue is the fact that the full potential of public procurements for innovation is not utilised. Public organisations, including different departments in the city administration which often are responsible for providing different public services have little knowledge about such procurements. There is also fear among officials to use such procurements as the evaluation of bids is more complex than with standard procurements which can lead to court disputes.

   Although there is a number of different actors in the local smart city ecosystem, there is not a single organisation that can be considered as a purely intermediary organisation that would act as the middleman between the relevant actors. This makes it harder to build a common understanding about the direction of smart city development. From the positive side, the local universities (and also universities from Helsinki) include a wide variety of local stakeholders into different smart city projects. Also, Tallinn City is increasing its activities and has recently started the practice of regular meetings with companies that develop and provide different solutions.

2. Lessons learned from regional ecosystem development in Tallinn City

   To get the user perspective, new possible solution could be the empowerment of local community organisations. The city could also start using the Open City mobile application to ask feedback and input related to smart city solutions. Currently the application is only used to get feedback and collect ideas about the development of the urban environment in certain areas of the city.

   The establishment of an intermediary which would act as a middleman between different key stakeholders in smart city development and lead the innovation procurement process – from defining the bottlenecks to delivering the scale-up of pilot projects. Good example is Forum Virium Helsinki which was established by the City of Helsinki and private (telecom) companies. Although Forum Virium is now owned only by the city, the companies and other institutions such as universities are official members of the organisation.

   Increasing the use of public procurements for innovation through different means such as providing training for officials dealing with public procurements, starting with small-scale pilots etc.

## Finland – Helsinki / Uusimaa

1. Obstacles and assets in RIS3 implementation of innovation hubs

   The ecosystem is strong has potential with globally recognized expertise. New knowledge and technologies are created and there are business activities based on that. More public and private investments are still needed to improve the interaction and synergy of the actors as well as to attract global talents and international investments. The AHA pilot has covered actors that have deployed both short term measures and longer-term strategies. On the latter, more intensive deployment and capability building in Connective Health technologies is needed. Senior citizens, especially the older cohorts, are frequent users of health services and for them, effectivity in care and more timely health outcomes can be achieved by new digital means.

2. Lessons learned from regional ecosystem development in the Helsinki-Uusimaa region

   In an efficient ecosystem the actors are tightly connected but they still make their decisions independently according to their own interests. Many real ecosystems are self-organising and the connections and partnerships are formed without external or centralized guidance. In younger ecosystems some orchestration is still needed together with active and open dissemination of information. This may speed up forming the ecosystem and help the actors to join and commit to it.

## Finland - Kymenlaakso

1. Obstacles and assets in RIS3 implementation of innovation hubs in the Kymenlaakso region

   Our region is geographically a relatively small area and all the relevant innovation actors know each other quite well. The communication and contacting between actors are smooth, fast and straightforward.

   A joint working group of all actors has been set up in the region by Regional Council of Kymenlaakso to work on updating the RIS3 strategy. In the context of this, all the existing innovation services and resources as well as possibly lacking ones will be identified and described. This working group serves also as a joint platform for intensified cooperation on selected strategic spearheads/ areas (e.g. establishment of joint innovative projects).

   E.g. port-related activities and business have a long tradition in the region -valuable know-how and relationships have been accumulated for decades. Kotka-Hamina region´s port areas are being developed currently very strongly and new investments with substantial amounts of euros have been declared during last few weeks (well over one hundred million euros in total). The current strong trend is also that port areas attract investments in bioeconomy and renewable energy.

2. Lessons learned from regional ecosystem development in the Kymenlaakso region

   Projects have traditionally been the most important means of regional development in Kymenlaakso region. Nowadays access to structural funding is constantly tightening (decreasing) and competition for funding between different actors is also becoming more intense. International cooperation and joint projects will play (and should play) even a bigger role in the future.

   The cooperation between Cursor Oy and the University of Applied Sciences should be further enhanced. It would foster the development of local enterprises by combining development company´s business knowledge and expertise at the business interface with strong applied research know-how from the university. This cooperation could also open new possibilities for graduate students to find employment in local enterprises and vice versa offer enterprises qualified workforce.

## Germany – Berlin / Brandenburg

1. Obstacles and assets in RIS3 implementation of innovation hubs

   The Berlin/Brandenburg region is a hot-spot for start-ups in Germany and company founders drive the economy through the digital work transformation in the region. They are able to rethink technologies, products and services and create new socially relevant solutions that also success on the market. These innovation-oriented SMEs are to be supported by various targeted instruments. Similarly, cluster platforms provide networking possibilities crucial for the development of the regional innovation dynamics.
   The stakeholders that operate as motors of each cluster play a central role in pushing forward these thematic priorities, especially with focus on fostering SMEs in bringing their ideas to market. Therefore, it is also of vital importance that clusters as well as social stakeholders collaborate in a constructive manner to operationalise these priorities across clusters and thus make innovations possible that solidify the selected regional spearheads.

   - Scientific talents from all over the world also appreciate the open research atmosphere and the high quality of life in the Brain city Berlin
   - Berlin's research landscape is characterized by change and progress

   The density of the scientific locations in Berlin and also the networking within European networks brings a lively and dynamic element into research.

2. Lessons learned from regional ecosystem development in Berlin/Brandenburg

   The focus of the 2011 strategy has led to a successful development of the five selected clusters. The goal of the innoBB 2025 strategy is to solidify this positive development. The strategy provides for each cluster a masterplan with a political innovation profile which structures and supports the work of the clusters in attaining the strategic vision and the goals of the strategy. In this way each cluster can make use of the specific regional resources and opportunities in working towards the horizontal strategic priorities of digitalization, new concepts of field testing and real-world laboratories, work 4.0 and start-up and founders funding.
   In short, the new innBB 2025 strategy underscores the innovation guidelines that have previously brought results acknowledging in an emphatic way that the change brings a considerable rewiring towards solutions of a sustainable, smart and inclusive future at regional, national, and EU level. This is envisioned by
   - A broader innovation concept,
   - A deeper cross-cluster collaboration,
   - A clearer opening up of innovation,
   - A greater consistency towards sustainability, and
   - A stronger regional emphasis on internationalisation.
   -

## Latvia

1. Obstacles and assets in RIS3 implementation of innovation hubs

   Taking into account that the objective of public and EU funds investment is to provide preconditions for private sector investment growth, the negative development trend indicates that the structure of the national economy remains not only unchanged, but also deteriorates. It is necessary to find complex solutions to eliminate weaknesses in the Latvian innovation system by improving Latvia's position in international ratings.

- The performer of the transformation process is the entrepreneur who decides to modernise production or shift resources to another industry/region/country. The main goal of the Policy is to increase entrepreneurs' motivation;
- It is necessary to reduce the productivity gap with highly developed countries in order to prevent stagnation and avoid middle-income-trap;
- Structural reforms that will reduce the imbalances in labour demand and supply are required;
- It is necessary to improve the institutional and business environment by removing obstacles to more efficient use of resources.

2. Lessons learned from regional ecosystem development in Latvia

The main challenges for local RIS3 development, taking into account first monitoring report results: investment in R&D increased up to 1,5% of GDP; development of knowledge base and human capital; development and increase of manufacturing industry productivity; FDI attraction and regional development.

The strengths of UL are world level research, highly qualified scientific personnel; some researchers are involved in sector policy making on national level; stable partner network – both local and international; well developed infrastructure.

The strengths mentioned before are leading to the following opportunities meeting the RIS3 challenges of the national level as well: the Academic Centre will provide an opportunity to increase multidisciplinary research and innovations; an increase in research capacity in connection with an increasing number of doctoral students and received degrees; favourable geographical location of Latvia is providing the possibilities for establishing international contacts and networking in science. The interest of foreign researchers about announced vacancies for post-doctoral and researcher positions is already observed as well as the market cooperation with partners in the BSR is enlarging.

## Lithuania

1. Obstacles and assets in RIS3 implementation of innovation hubs

The Klaipeda region case shows how this region is using their unique geographic location, set of players and cooperation possibilities to build separate marine/ smart port ecosystems. Interreg BSR supported project Smart up BSR provided instruments to foster development of this innovation ecosystem in Klaipeda region by three main pilot projects – LNG Forum 2019, Portathon Baltic 2019 and Delta Navy, that were jointly co-organized by Klaipeda Science and Technology park and MITA, together with other key players of Innovation ecosystem.
Klaipeda Science and Technology Park (KSTP) is an active player in the innovation ecosystem of the Klaipeda region. KSTP implementing innovative projects also helps science and business to find common points to create and innovate together. In Project Smart-up BSR Klaipėda Science and Technology Park has chosen smart port theme. Klaipėda region is influenced by Klaipeda Sea Port that's why KSTP seeks breakthrough innovations in port technology and transport.
The strengths of the innovation ecosystem of Klaipeda region could be identified: a favourable environment for innovation, cooperation of business and science and human resources. The contribution of Klaipeda Science and Technology Park to the innovation ecosystem is quite important – science and business relations have been intensifying lately. All innovation ecosystem participants are involved to achieve main Klaipeda region goals – to attract new technology Klaipeda municipality in 2019 has also approved Klaipeda Economic Development Strategy 2030 where main actors are innovation ecosystem participants.
Good example about how different stakeholders and innovation ecosystem actors are involved in implementation of S3 is their participation in Pilot initiatives, that are worked out with the help of Smart up BSR project. During 2019 there were initiated and implemented one pilot project in

theme Smart City which involved three events, that aim to attract citizens and other stakeholders to create the unique ecosystem, needed to produce new products and technologies for smart maritime sector. The main task of the pilot was to analyse the current situation of ports, maritime transportation, their challenges, the technologies applied in the port and generate ideas, prototypes, solutions for port digitalization and automation processes with the help of target groups.

2. Lessons learned from regional ecosystem development in Lithuania

The innovation ecosystem of Klaipeda region cannot operate separately from the national innovation ecosystem. Smart specialization directions and other key players in the Lithuanian innovation ecosystem influence the Klaipėda region and the innovation ecosystem.
The innovation ecosystem in Klaipeda region is interested in cooperating, generating joint activities and projects, also involving foreign partners and their best practices.
All innovation ecosystem parties are open not only with their human recourses but also with their infrastructure and contacts. Solutions and ideas that was generated during Pilot project not only received the support of the city municipality, but also attracted the interest of innovative companies.
Lessons are outlined in the document: Place-based ecosystem in Lithuania, overview and Klaipeda region case, which is annexed to this document.

## Poland - Gdansk

1. Obstacles and assets in RIS3 implementation of innovation hubs

The ecosystem helps the pilot by organizing regular meetings, dedicated events (conferences, hackathons, Innovation Camps), as well as regular animating and supporting initiatives

Smart Metropolia, the annual conference in Gdansk, already is/and still could be a platform for sharing the smart solutions between the cities and its between cities and their rural surroundings. Congress is based on the idea of cross-sectoral cooperation (quadruple helix stakeholders are involved). Every year, we also try to make the congress supporting socially and ecologically responsible solutions

2. Lessons learned from regional ecosystem development in the Gdansk-Pomorskie region

An important issue is the early involvement of all identified stakeholders. The concept should be developed as participative and inclusively as possible. In building cooperation, the most common problem is to understand that together we can do more: that bigger (city/municipality/institution, business) can help the smaller, or the more experienced can share his knowledge with the less experienced and often it is a big advantage for both.

It is extremely important to diagnose the needs first and to think about the impact of this initiative and how we will monitor the change and how we will keep the continuum. While working together with various stakeholders, it is a huge challenge to jump over political divisions and over the atmosphere of competition.

The metropolis and the entire region should jointly consider how to prevent too much outflow of talent. There should be joint actions to ensure a good quality of life, adequate housing, good transport connections, as well as access to the natural environment. Another important thing is finding some tools to support entrepreneurship from an early age for children.

## Russia – St. Petersburg

1. Obstacles and assets in RIS3 implementation of innovation hubs

   The implementation and governing of Smart City implementation was delegated to Smart St. Petersburg Project Office. The office includes representatives of ITMO University, which is a recognized educational and scientific leader in the field of IT technologies, representatives of business entities which perform in the development and production of state-of-the-art software and hardware, and representatives of the executive bodies of St. Petersburg government. The head of Smart St. Petersburg Project Office is V. N. Vasiliev, ITMO University Rector. ITMO Expert had elaborated the Smart City concept that was approved by St.Petersburg government in April of 2018. Based on this concept, a priority program "Implementation and use in St. Petersburg of the technologies of the" smart city "using IT solutions for the period until 2024" and related activities for the implementation of smart city technologies was developed.

   Smart City concept defines the roadmap and priorities for smart technology solutions and technologies.
   Thus, it can be said that implementing the smart city concept in St. Petersburg is facilitated with the existing innovation ecosystem. The representatives of Quadro Helix interact in the course of proposing projects, selecting them and afterwards in taking them into real life. Another path of figuring out solutions and proposals of smart city is to carry out hackathons. Universities in collaboration with other innovation actors, such as techno parks and business incubators, run Smart City and Green Sustainable hackathons. The financial mechanism of executing the smart city technological solutions embraces different forms from government support to government-private partnership, private investments.

   The smart city implies maximum usage of ICTs to meet the needs of citizens, and thus public participatory principle in the process is a necessary condition of implementing smart city. In general, the city is seen as an open platform for communication between business, citizens and government. In this case, the active participation of citizens via expressing the needs and demands by the means of digital platform and other ways contributes into transforming St. Petersburg in a comfortable city for living and address urban development challenges.

2. Lessons learned from regional ecosystem development the St. Petersburg region

   ITMO University is an active actor in innovation ecosystem, it is fully committed into smart city implementation. Beside contributing the expertise in Smart St. Petersburg Project Office, participating in priority program roadmap implementation, hackathons, accelerator programs ITMO are the partner of ITMO Highpark project. ITMO Highpark is a center of innovation, education and high technology in St. Petersburg which embraces an innovative world-class scientific and technological center is being created, including a new campus of ITMO University, the Highpark innovation center, and the innovative science and technology center.
   The Highpark Innovation Center will commercialize scientific and innovative achievements, supports existing and creates new high-tech enterprises for the growth of the digital economy in the Russian Federation. An infrastructure is being created for the development of innovative projects, including acceleration, information, consulting and financial support for introducing innovative Russian products to the international market.
   ITMO Highpark will be a new generation innovation center focused on the integrated development of scientific, educational, high-tech, social and residential infrastructures.

# 6. Implications towards more entrepreneurial regions

The activities of the regions were recorded as the regional attempt to speed up the use of the best practice with the help of this conceptual framework. In terms of activities the participating regions can be said to have used an 'act and correct' approach to balancing regional strategic action. In terms of the benefits of achieving balance in the mobilisation of innovation hubs it can be said that balance is considerably reinforced by applying this set of organisational competencies within organisations, or across regional stakeholders, as well as cross-regionally.

The idea of committing to shared organisational competences is to build both a balance and an innovation muscle. Therefore, regions must include their own competency models and in the competency models of their stakeholders and combine them with the six steps of RIS3 implementation. This combination in turn builds up a regional competency as a persistent pattern of behaviour resulting from a cluster of knowledge, skills, abilities, motivations and commitments.

Therefore, the vision of a sustainable and entrepreneurial region will imply building a competency model that is persistent in the chosen direction and translatable into competences that drive regional and cross-regional action.

Regional organisational competencies will help in strengthening the ideal patterns needed for exceptional innovation performance. The organisational innovation competencies suggested here help regions embrace the elements that have been identified to sustain innovation: Creativity, Enterprising, Integrating Perspectives, Forecasting, Managing Change.[1]

Learning to directly involve stakeholders in open innovation processes requires powerful models, coached practices, good examples, and effective methodologies. To reach the level of competence needed for orchestration, the organisations as innovation drivers need new skills that allow them to act in new professional roles (for example: ecosystem orchestrators, innovation architects, process bridge-builders, roadmap curators, or activity conductors). These new professionals can facilitate activities and help regional actors to compose Smart Specialisation innovation hubs networking together in continuous activities "from bottom to top" and "from needs to action" processes.

Using the organisational competencies architecture as an instrument to tackle Smart Specialisation implementation is crucial to effectively alternate between the mode of open and entrepreneurial innovative leadership and managerial governance and reach a higher level of competency through use in action.

[1] https://www.innovationinpractice.com/innovation_in_practice/2011/04/innovation-competency-model.html#:~:text=Core%20Competencies%20of%20Innovation,weak%2C%20and%20analyzing%20these%20judgments.

‘Critical’ organisational problems, such as a sudden crisis allows very little time for decision-making to guide action and can easily be associated with either a top-down ‘automatic’ mode of leading regional development, or with neglecting to act and take appropriate responsibility. In order to be prepared for such ‘critical’ events a habit/competency in participatory and reflective action is important. This type of governance approach is the result of using instruments such as the architecture of organisational competencies suggested here, or, as another example, the capacity building instrument presented in the next section.

While the architecture of the organisational competencies is an instrument that organisations and individuals as regional actors can pursue to achieve in their specific roles constituting an evidence-base innovation system, the following third instrument, Innovation Camps, reflects a strategic collective competency for a collaborative transformational path.

Regional authorities, local agents, and multi-disciplinary organisations equipped with capacity building and competence renewal will be able to facilitate activities resulting in changes and improvements. Those organisations will function as leaders when orchestrating regional and cross-regional collaboration. They will not only define their specific strategic goals at regional and inter-regional level, they will also solve challenges in action and at a constant pace.

# 7. Conclusion

Experiences in building innovation hubs in the Smart-Up BRS project partenr regions have indicated the advantages of working within the frame of specific strategic instruments for balancing regional change, boost entrepreneurship and ensure institutional change management. Therefore, the experiences related to capacity building via peer-learning, engagement and collaboration work, have led us to present a conceptual framework and set of strategic capacity building instruments for organisational innovation.

The instruments have the ability to enhance the discussions between the key local actors, drivers of regional development and innovation active from different levels. Strategic capacity building and organisational innovation capability can reach from local entrepreneurial action to national coordination, or European level policy. More importantly, such institutional change management tools serve as instruments to secure balance, in implementation, in tensions, and in breakthroughs.

Regional authorities, local agents, and multi-disciplinary organisations equipped with capacity building and competence renewal will be able to facilitate a continuous flow of revisions based on action results.

The key elements of the strategic instrument of organisational innovation competence can be approached from the four aspects of why, who, how, and what in order to secure advantages to the regional organisations active in the economic transformation in their regions:

| | | | | |
|---|---|---|---|---|
| Organisational Innovation Competency | -better commitment<br>-better policies<br>-better implementation | multi-level governance and commitment | -shared expertise<br>-consistent learning and competence renewal | emphasis on renewed commitment |

**Table 3** Advantages of Organisational Innovation Competency Set of Tools

This instrument, which regions can use as a conceptual framework for institutional change management, will serve as a backbone for institutions to initiate and maintain a sustainable and entrepreneurial economy. It will also constitute the backdrop for the regional commitment to Smart Specialisation strategies and implementing actions serving their local development, thus speeding entrepreneurial practices in the regions.