Open innovation to foster SME growth



A Policy Brief from the Policy Learning Platform on SME competitiveness

MAY 2023



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Summary

This policy brief focuses on approaches for increasing the innovation capacities of businesses building on the open innovation paradigm. Being originally defined for use in business strategies, the understanding of open innovation has widened, and it is not anymore limited to considering the perspective of single entities (businesses). It now embraces the interaction of multiple actors within regional ecosystems. **Open innovation has turned into a model for policy makers to sustain regional innovation performance.**

In the following we present some approaches on how local, regional and national authorities can contribute to promote and foster innovation and innovation-driven entrepreneurship based on the open innovation paradigm and building on successful practices from the Interreg Europe projects' community. The following approaches are highlighted:

- Opening up businesses to the innovation potential of students
- Opening up businesses to the innovation potential of start-ups
- Open innovation approaches on regional scale

Introduction

The concept of innovation capacity covers a wide range of policy areas that cannot be adequately addressed in all their facets in a single policy brief. In this document, we focus on approaches to increasing the innovation capacity of enterprises based on the **open innovation paradigm**. The concept of open innovation was introduced by Henry Chesbrough (Open Innovation: The New Imperative for Creating and Profiting from Technology, 2003) and can be defined as "a paradigm that assumes that firms can and should use both external and internal ideas, and internal and external routes to market, as they seek to advance their technology". In 2014, Chesbrough redefined the concept as "a distributed innovation process". **Opening up their innovation processes is increasingly seen as a necessity for companies to be successful in the long term**. It is a valid response to the increasing pressure on R&D performing companies resulting from increasingly complex technologies and rapid market developments. While the concept was initially often seen as being driven by large companies able to manage significant intellectual property portfolios, the understanding of open innovation has broadened and it is no longer limited to considering the perspective of single entities (companies), but the **interaction of multiple actors within regional ecosystems**.

Open innovation has also become a model for policy makers to support regional innovation performance. In many EU countries, regions are now recognised as playing a central role in the economy. They are gradually becoming the basic units of the local ecosystem, e.g. by providing a favourable platform for cooperation between firms leading to the creation of a regional open innovation system. (Torkkeli & Ahonen, 2007).

In the following we present some approaches on how local, regional and national authorities can contribute to promote and foster innovation and innovation-driven entrepreneurship by building on the open innovation paradigm, building on successful practices from the Interreg Europe projects' community. The focus of the brief is on the following approaches:

- Opening up businesses to the innovation potential of students
- Opening up businesses to the innovation potential of start-ups
- Open innovation approaches on a regional scale

New European Innovation Agenda

The <u>New European Innovation Agenda</u> adopted on 5 July 2022, aims to position Europe at the forefront of the new wave of deep tech innovation and start-ups. It will help Europe to develop new technologies to address the most pressing societal challenges, and to bring them on the market. Europe wants to be the place where the best talent work hand in hand with the best companies and where deep tech innovation thrives and creates breakthrough innovative solutions across the continent. The New European Innovation Agenda focuses on five flagships:

- Funding Scale-Ups by mobilising institutional and other private investors in Europe to invest in the scaling of European deep-tech start-ups.
- Enabling innovation through experimentation spaces and public procurement through improving framework conditions including experimental approaches to regulation (e.g. regulatory sandboxes, test beds, living labs and innovation procurement).
- Accelerating and strengthening innovation in European Innovation Ecosystems across the EU and addressing the innovation divide by creating regional innovation valleys and help Member States and regions direct at least 10 billion EUR to concrete interregional innovation projects, including in deep-tech innovation for key EU priorities.

- Fostering, attracting and retaining talents by ensuring the development and flow of essential deep tech talents in and to the EU through a series of initiatives including an innovation intern scheme for startups and scale-ups, an EU talent pool to help startups and innovative businesses find non-EU talent, a women entrepreneurship and leadership scheme and a pioneering work on startup employees' stock options.
- **Improving policy making tools** through comparable data sets and shared definitions (startups, scale-up) for ensuring better policy coordination at the European level.

Building on the substantive work that have been done already to foster innovation in the EU, the New European Innovation Agenda aims to accelerate the development and scaling up of innovation across the Union.

While not mentioning specifically the Open Innovation paradigm, measures from the <u>New European</u> <u>Innovation Agenda</u> such as the development of experimentation spaces and the European Innovation Ecosystems are typically related to the application of Open Innovation in the context of innovation policy making. Some details are given hereafter.

European Innovation Ecosystems (EIE) programme

As part of Horizon Europe, the <u>European Innovation Ecosystems (EIE)</u> programme aims to create more connected, inclusive, and efficient innovation ecosystems and support the scaling of companies, as laid out in the New European Innovation Agenda. Innovation ecosystems:

- bring together people or organisations whose goal is innovation, and
- include the links between resources (such as funds, equipment, and facilities), organisations (such as higher education institutions, research and technology organisations, companies, venture capitalists and financial intermediaries), investors and policymakers.

The actions supported by European Innovation Ecosystems complement the actions carried out by the EIC and the European Institute of Innovation and Technology (EIT), activities across Horizon Europe, initiatives at national, regional, and local level as well as private and third sector initiatives. The European Innovation Ecosystems projects contribute to the New European Innovation Agenda by:

- Scaling up of deep tech innovations
- Boosting innovation procurement
- Connecting the European Innovation Ecosystems

Regional Innovation Valleys

The flagship initiative Regional Innovation Valleys aims at "accelerating and strengthening innovation in *European Innovation Ecosystems across the EU and addressing the innovation divide"* (New European Innovation Agenda). The initiative will involve up to 100 regions that are committed to enhancing the coordination and directionality of their research and innovation investment and policies.

The EU is providing a funding of EUR 100 million from <u>Horizon Europe</u> and EUR 70 million from the I3 under the European Regional Development Fund. The funding will support interregional collaboration activities, including market uptake of research, scaling up of companies, deploying and demonstrating deep technologies, access to cross-border infrastructure and expertise, staff exchange, training, and developing standards and regulations. The successful applicants will be recognized as "regional innovation valleys."

This initiative will consider current efforts aimed at enhancing and linking industrial and regional innovation ecosystems, including I3 under Cohesion Policy, <u>Startup Villages</u> as part of the <u>Long-Term</u> <u>Vision for Rural Areas</u> policy, <u>Euroclusters</u> under the Single Market Program, and Horizon Europe including <u>European Innovation Ecosystems</u>, <u>Startup Europe</u>, <u>Widening Participation</u>, <u>Strengthening the</u>

European Research Area, Missions, and the work of the EIT's Knowledge and Innovation Communities and Regional Innovation Schemes.

Both the European Innovation Ecosystems and the Regional Innovation Valley programme are focusing on strengthening interaction among innovation stakeholders in line with open innovation governance principles.

EIT's Knowledge and Innovation Communities

The <u>European Institute of Innovation and Technology</u> (EIT) is an EU body created by the European Union in 2008 to strengthen Europe's ability to innovate. The EIT is an integral part of <u>Horizon Europe</u>, the EU's Framework Programme for Research and Innovation. As part of Pillar 3 'Innovative Europe', the EIT contributes to achieving the four key strategic orientations of the Horizon Europe Strategic Plan:

- strengthening sustainable innovation ecosystems across Europe
- fostering the development of entrepreneurial and innovation skills in a lifelong learning perspective and support the entrepreneurial transformation of EU universities
- bringing new solutions to global societal challenges to the market
- creating synergies and added value within Horizon Europe

Knowledge and Innovation Communities

The <u>European Institute of Innovation and Technology</u> (EIT) supports pan-European partnerships, <u>EIT</u> <u>Knowledge and Innovation Communities</u> (KICs), composed of leading companies, research labs and universities each dedicated to solving a pressing global challenge, from climate change to health, to renewable energy. To date, the EIT has set up nine KICs:

- <u>EIT Climate-KIC</u>: Working to accelerate the transition to a zero-carbon economy
- <u>EIT Digital</u>: Driving Europe's digital transformation
- <u>EIT Food</u>: Leading a global revolution in food innovation and production
- <u>EIT Health</u>: Giving EU citizens greater opportunities to enjoy a healthy life
- <u>EIT InnoEnergy</u>: Achieving a sustainable energy future for Europe
- <u>EIT Manufacturing</u>: Strengthening and increasing the competitiveness of Europe's manufacturing industry
- <u>EIT Raw Materials</u>: Developing raw materials into a major strength for Europe
- <u>EIT Urban Mobility</u>: Smart, green and integrated transport
- <u>EIT Culture & Creativity</u>: Transforming Europe's Cultural & Creative Sectors and Industries

The different KICs often implement so-called Open Innovation Calls aiming at helping build new ideas and address global challenges adaptation through innovation.

Innovation capacities in Interreg Europe projects – open innovation based approaches

OPENING UP BUSINESSES TO THE INNOVATION POTENTIAL OF STUDENTS

When businesses access the innovation potential of students, the benefits are numerous:

- Access to fresh perspectives and the latest knowledge: Students bring a fresh perspective to problem-solving and can provide businesses with new ideas and insights. Students are up to date with the latest research and developments in their field. By collaborating with them, businesses can gain access to this knowledge and apply it to their own operations.
- Cost-effective innovation: Collaboration with students can be a cost-effective way for businesses to innovate. Students are often willing to work for free or for a low cost, which can help companies to save money on research and development.
- Building a talent pipeline: Collaborating with students can help businesses to identify and attract talented individuals who may be interested in joining their team in the future. This can help to build a talent pipeline for the company and ensure that they have a strong pool of candidates to draw from when hiring.
- Enhancing brand reputation: Collaboration with students can enhance a company's brand reputation, particularly if they are seen as supportive of education and innovation. This can help to attract customers who value companies that are committed to social responsibility.

Overall, it is a valuable strategy for companies looking to innovate and stay competitive in today's rapidly changing business environment.

In terms of competitiveness of the regional economy, the following benefits can be highlighted:

Open innovation practices bringing together businesses and students increase the quality of the entrepreneurial education delivered in the region and therefore contributes to increase the skills of young people entering the job market.

This is for instance well illustrated by a quite well-known initiative, implemented on a global scale: Demola. It brings together students and companies to work jointly on innovative solutions.

Open Innovation Platform "Demola Latvia"



Demola Latvia is an interesting practice which has been led by different institutions. Initially launched in cooperation of the local IT Cluster, the Ministry of Business and the national

development agency, it has since been handed over to Riga Technical University and University of Latvia. The main task of Demola is to organize and work with multidisciplinary teams of students and develop innovative applicable project cases and real solutions for businesses. It facilitates creation of new products and services in the following categories: business concepts, coding, design & art, education, engineering, environment, governance, healthcare, media & communications, social science.

Businesses have a charge for using the DEMOLA services only if the result is applicable and satisfies them. Otherwise, the DEMOLA works free of charge as a learning platform for students and a cooperation place for universities, businesses and regional authorities.

Find out more about the practice here.

The practice typically registers 200 to 300 student applications from over 15 universities per batch (2 batches per year) working on over 40 challenges submitted by businesses. It is supported since 2019 by ERDF under the "Student innovation grants programme".

The <u>FUSION</u> programme from Ireland (<u>InsideOut EU</u>) offers another approach to collaborative innovation partnerships building on the involvement of students.

InterTradelreland FUSION Programme

FUSION creates a partnership between an SME with a specific technology

need and a knowledge centre (college or research institution) with the required expertise in the opposite jurisdiction (Ireland or Northern Ireland). This successfully encourages cross border innovation collaboration. As part of the support FUSION funds a high calibre science, engineering or technology graduate to carry out the project over a 12- or 18-month period.

Projects must be in the area of new product / service / process development or process improvement. FUSION also funds the knowledge centre participation, a postgraduate diploma for the graduate and some project costs. The company will employ the graduate throughout the project (12 - 18 months) with mentoring from the academic partner and an InterTradeIreland FUSION consultant.

The evidence of success and impact of the practice is strong:

- Almost 1,000 projects over 20 years (2000-2020)
- Mid-term evaluation FUSION generated about EUR 14,6 m sales/ EUR 2,1m cost savings (Over 3yrs post project gross benefits of over EUR 1,25m per company)
- 84% Businesses/Academics satisfied & 93% recommend the programme to others
- Graduate retention: 84% offered full-time employment / 76% accept

Find out more about the practice <u>here.</u>

Please note that the figures above are more recent, and therefore different, than the ones provided in the description under the link.

After 20 years of operation, the programme enters a new decade: it has been refreshed and rebranded as **Innovation Boost / Career Boost** leading collaborative innovation partnership creation and technology transfer on the island of Ireland for at least the next five years.

This trainee programme also allows the opportunity to create an alumni network of young professionals. Additional intangible benefits for regions are made this way. Programmes such as FUSION broaden the career horizons of young talents. The key to success with such programmes is the people involved. It is essential to match the right academic partners with the right companies so that they would understand each other and have a good fit. Trust and real commitment need to be built between the various stakeholders. As the FUSION programme illustrates, such work placement programmes can also be run cross-border. The cross-border nature enables to create more extensive innovation networks between the stakeholders. You can potentially match SMEs with academic institutions that they could not otherwise reach.

 Such practices can contribute to improve entrepreneurial education, and to initiate innovation processes in traditional smaller companies without (or only with low) internal innovation capacities. A further benefit is that those companies are put in relation with skilled students and are more likely to hire them, thus fostering their settling in the region.

An interesting variation of this approach is the <u>Challenge & Competencies</u> practice in the Pays de Loire (France) region.

Challenges & Competencies



Challenge & Competencies (in French: "Challenge Compétences") aims at initiating innovation processes in local companies. It is coordinated by Laval Mayenne Technopole.

This initiative works on a hackathon-like format: higher education students – in teams of 4 to 5 - are paired with volunteering SMEs and are given a week to come up with innovative digital project ideas that could benefit the company. On an interesting note, the participating SMEs explicitly do not provide the students with a problem to solve but open their doors and minds to the ideas the students come up with. In the specific context of this programme, the innovative ideas developed by the students have a digital component (hardware- and/or software-based).

Challenge & Competencies took first place in 2011 and every year since then, now mobilising annually around 1.000 students in 200 teams, working for 160 enterprises. Those figures demonstrate the interest of the higher education community for the programme.

Find out more about the practice here.



The practice provides especially an efficient and simple approach for business support organisations to **lower the barriers for traditional, small companies to enter innovation processes**. It is also a clever way to bring closer together the regional higher education community and the regional businesses, thus laying the foundations for a better functioning business support ecosystem. For SMEs it is a chance to get fresh (outsider view) and youthful ideas. It is also an opportunity to scout out young talent that could be invited to internship or to be employed in the future. For the students, it is a chance to work with a real company, challenge themselves in a more practical format and potentially build beneficial contacts for future employment.

Such practices are therefore relevant for breaking down information barriers about interesting job opportunities in local businesses, and potentially help to **retain skilled university graduates in the region**. All of this is achieved with relative low expenses, i.e. about $2.000 - 2.500 \in$ and 20 person-days for one challenge with one higher education organisation.

OPENING UP BUSINESSES TO THE INNOVATION POTENTIAL OF START-UPS

The innovation potential of start-ups offers companies similar interesting benefits. Besides the advantages listed above in relation to opening up businesses to innovation potential of students, which can mostly be extended to start-ups, the following additional ones are worth mentioning:

- Access to disruptive technologies and specialized expertise: Startups are often focused on developing disruptive technologies, building on cutting-edge knowledge and expertise, that can challenge established players in the market. By collaborating with startups, businesses can gain access to these technologies and expertise, and integrate them into their operations, giving them a competitive edge.
- Access to new markets, including diversification of product/service offerings: Startups are often focused on developing products or services for new and emerging markets. By collaborating with startups, businesses can gain access to these markets and expand their customer base. This often also implies a diversification of the product/service offerings of the businesses involved.
- Access to funding and risk sharing: Startups have often access to funding sources that may be unavailable to established businesses. By collaborating with startups, businesses can gain access to these funding sources and potentially secure new sources of capital. By working together, both parties can share the costs and risks associated with innovation, making it a more viable option for both.

 Learning opportunities: Collaboration with startups can provide learning opportunities for businesses, particularly in areas such as entrepreneurship, innovation, and agility. By working with startups, businesses can gain new insights into how to operate in a rapidly changing business environment.

From a policymaking perspective, the above benefits can be leveraged for the benefit of the whole regional economy:

 Fostering collaboration between regional businesses and startups can strongly contribute to improve the overall business creation and innovation dynamics in the region.

Maintaining or even improving the capacity of the local economy to generate new businesses, be it through business creation (startups) or new activities from existing businesses is a critical factor for economic competitiveness. It is also a serious challenge, especially in regions dominated by traditional companies. In regions with an industrial fabric composed mainly of traditional manufacturing SMEs, innovation processes remain often informal and internal to the businesses. Local SMEs have little interaction with higher education and research organisations or further knowledge-based organisations, leading potentially to a slow uptake of digital technologies, an ongoing lack of innovation and R&D investments, and finally to a loss of competitiveness compared to the global competition.

The collaborative model and acceleration programme from Reggio Emilia <u>Engaging with Start-ups to</u> <u>Enhance Corporate Innovation</u> provides an innovative and successful answer to this challenge, enabling the emergence of new business models.

Engaging with Start-ups to Enhance Corporate Innovation

Reggio Emilia territory has created a start-up ecosystem to carry out open innovation projects. The University of Modena and Reggio Emilia, Legacoop Emilia Ovest, CNA, Impact Hub, Chamber of Commerce are some of the actors involved. This integrated public/private local strategy consists of supporting entrepreneurship and promoting open innovation between corporates and start-ups.

In particular, Unindustria Reggio Emilia (local branch of the Italian Entrepreneurs Association Confindustria) has created Upidea!, a 6-months acceleration program to promote corporate innovation with start-ups. Start-ups from different sectors are selected, trained and mentored by using corporates' competences and networks. Projects that bring innovation to the territorial production system, such as digital manufacturing, Industry 4.0, artificial intelligence and sustainability projects, are especially welcomed. The collaboration between corporates and start-ups represents a win-win strategy for innovating a local economic system.

Find out more about the practice here.

A similar model, also from Italy, is <u>Open Innovation Challenge - supporting cooperation between</u> <u>corporates and startups</u> (<u>SCALE UP</u>) run by Lazio Innova.

Open Innovation Challenge - supporting cooperation between corporates and startups



With the Open Innovation Challenge, Lazio Innova offers medium sized to large corporates companies the opportunity to launch a "challenge" to search for innovative product/ process/ service solutions that

are most in line with their needs. Launching a challenge allows the company to take advantage of the innovative potential of startups and businesses to drive and implement their business innovation processes. In return, they offer expertise, budget and a market for startups.

Riscrivi il tuo futuro Open innovation challenge La strategia di Open

Find out more about the practice <u>here</u>.

This is a good and well-functioning example of a programme that facilitates cooperation between large companies and start-ups/SMEs. It involves identifying the challenges faced by large companies that could be addressed by innovative solutions from start-ups. One of the main lessons is that time needs to be spent to clearly identify the challenges faced by the participating large companies. This provides the participating start-ups with a clear understanding of the needs and challenges and makes the whole programme more effective and useful. It should be noted that participation in the programme is motivated by public sector funded prizes.

 Fostering collaboration between regional businesses and startups can strongly contribute to sustain the implementation of smart specialisation strategies (S3)

The benefits of open innovation approaches engaging established companies and start-ups can be further leveraged by establishing such models in close adequation with the regional S3. Practically it means that related initiatives, mostly business acceleration or similar programmes, will focus on specific technology areas listed in the S3. In such programmes, relevant regional financial and technological resources can be combined and integrated to the implementation of the initiative. For instance, laboratory equipment and scientific expertise can be made available to the innovation projects jointly developed by established businesses and startups. Specific funding programmes can also be allocated to those projects. A strong argument in favour of such approaches is that **the involvement of businesses increases the likeliness of a route to market for the outcomes of the projects supported**.

An additional positive effect is that such programmes **increase the visibility of the region** and can contribute to attract businesses and business founders working in the technology area selected to the region, and thus further reinforce the expansion of the regional strengths in the area. This approach is illustrated by the <u>BIND 4.0</u> (<u>ESSPO</u>) practice from the Basque Country:

BIND4.0



BIND4.0 is a public-private business accelerator aiming to accelerate startups by collaborating with large companies and attracting international talents to the Basque country. The technology focus is aligned with the Basque RIS3 and includes: advanced manufacturing, energy, health tech and food tech.

Startups may apply from anywhere in the world and will have a strong commitment to accelerate their business in the Basque ecosystem by connecting startups with leading Industry 4.0 manufacturing, energy, and healthcare companies and contracts worth up to €150,000.

Selected Bind 4.0 startups will develop a project for one of these companies while learning the ins and outs of their business. The company will function as a customer as well as a resource for new technologies and networks, which the startup can use to develop its business and commercial tools. Startups get the unique opportunity to grow along with these companies.

Find out more about the practice here.

The <u>BIND 4.0</u> practice provides an interesting example of how-to set-up a business acceleration programme strongly connected to the local economy. <u>BIND 4.0</u> provides its startups, in addition to a full-fledge classic acceleration programme, the opportunity to gain first customers among the major local industrial companies. This support might well be as valuable as funding. And it has the potential to generate a win-win-win situation for the startups involved in the programme, the large company and the Basque economy in general! The growing number of applications and major companies taking part in the programme speak for the relevance of the practice to the both the Industry 4.0 startup community and the established Basque businesses.

Policy change – Improved incubation and acceleration services in Tartu (<u>ESSPO</u>) and Normandie (<u>FFWD EUROPE</u>)

The <u>BIND 4.0</u> model inspired Tartu Science Park directly for the improvement of the local incubation and acceleration services, in collaboration with Tartu City Government, which provides funding for most of the incubation and services available in the area. The challenge addressed by the action is to align as much as possible the services provided by different incubators and accelerators in the Tartu region, to avoid duplication and fragmentation of the offer on the one side and make the most efficient and impactful possible use of the public money used to deliver those services. One identified approach is to increase the collaboration with industry partners in the interaction with the startups hosted, especially through improved startup – corporate collaboration. In addition, the different incubation and acceleration services were regrouped under a common brand: Fast Track Tartu.

OPEN INNOVATION APPROACHES ON REGIONAL SCALE

The open innovation practices described here build on the classic triple helix (research/university - industry - government) collaborative innovation model and specifically target enterprises and their innovation needs. There are also practices that build on the broader quadruple helix (research/university - industry - government - public) collaborative innovation model, with the aim of bringing the open innovation paradigm to the whole regional innovation ecosystem. This is for instance the case in the Italian region Emilia-Romagna, under the leadership of ART-ER Attractiveness Research Territory (ART-ER), the Emilia-Romagna Joint Stock Consortium born with the purpose of fostering the region's sustainable growth by developing innovation and knowledge, attractiveness and internationalisation of the territory. As stated on the website of the Region Emilia-Romagna, the research and innovation division of ART-ER "aims at an open innovation model, where businesses, startups, researchers and associations discuss and share experiences and models of action, have access to the same resources and have the opportunity to orient their activities towards the objective of generating innovative and impactful solutions for the whole ecosystem, to make Emilia-Romagna an open, inclusive and attractive region".

The <u>Open Innovation Platform EROI</u> (<u>RegionArts</u>) was set up to pursue this aim and to gather in one place all the services and opportunities available to the regional ecosystem.

EROI - Emilia-Romagna Open Innovation

EROI is a web-based platform and digital community that raises awareness on open innovation practices and fosters connections among the regional innovation ecosystem (SMEs, labs, incubators, startups, clusters). The platform allows users to tackle innovation needs collaboratively. It builds upon the knowledge/competencies of a broad community.

Users can:

- demand/offer solutions to specific problems or needs;
- create thematic discussion groups;
- connect with partners to participate in innovation projects requiring abilities from different fields;
- receive updates on technology and innovation developments.

This digital tool reinforces and already structured regional innovation system which counts on support measures developed by Emilia-Romagna Region. The platform - launched in 2019 with only 117 early-bird subscribers can count on almost 2.000 active users.

Find out more about the practice here.



This web-based platform represents an innovative approach to the practical implementation of open innovation processes at regional level, going beyond mere institutional arrangements. While such

collaborative processes definitely require personal contacts and the creativity that comes from face-toface meetings and networking activities, such a digital tool can support these processes and help accelerate interactions and the emergence of projects by creating a marketplace for challenges, skills and creative people. It proved to be a useful support for local businesses to respond to the COVID-19 crisis and its impact on economic activities.

The regional platform in Emilia-Romagna is completed with a series of public open spaces offering onsite collaboration opportunities, with a strong focus on digital technologies: the <u>Emilia-Romagna Open</u> <u>Labs</u> (<u>RegionArts</u>). The <u>Open Labs</u> initiative in Emilia-Romagna contribute to extend the concept of open innovation into a broad scale participatory process. It constitutes thereby one of the comparatively few initiatives targeting communities in their entirety and diversity.

Emilia-Romagna Open Labs

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EMILIA-ROMAGNA

Emilia-Romagna has established a network of 10 open labs: public spaces, previously used for other purposes (e.g., former schools, cloisters, factories), were regenerated and supplied with innovative technologies which are accessible to society at large (citizens, SMEs, schools, unused public administration buildings).

Open labs are the focal point of the Urban Agenda and the physical hub of the Digital Agenda of the region. These spaces boost open and bottom-up innovations where digital competences are improved through a series of concrete actions:

- Trainings to decrease the digital divide.
- Hackathons for stakeholders with different backgrounds to find creative and technology-driven solutions;
- Events to enjoy the cultural and creative offer of the territory through digital innovations;
- Laboratories to develop prototypes thanks to the devices of the open labs and open innovation approaches.

Each open labs puts technology, innovation, cooperation and participation at the centre.

Find out more about the practice here.

Policy change – Arctic Smart Future Technologies project in Lapland (RegionArts)

The policy context: While the role of new and emerging industries as platforms for business has been recognised in Lapland, the role of creative industries, art and design were mostly forgotten in the strategic papers, and not included in the regional S3. Through their work in RegionArts, the local stakeholders were able to modify this strategic vision and raise awareness of an emerging business sector consisting of new, innovative, smart microenterprises and SMEs, which benefit from rapid digitalisation, opening new possibilities and creating new jobs in the traditional industries, but also in the fields of design, media, applied arts and cultural management etc. The combination of creative and ICT sectors is at the heart of this fourth sector.

The project: The Artic Smart Future Technologies (ASFT) project is an action developed within RegionArts by the Lapland University of Applied Sciences and the University of Lapland (Finland). It is funded by the Programme for Sustainable Growth and Jobs 2014 – 2020. The project aims to strengthen the collaboration between the various educational institutions in Lapland, by sharing equipment and knowledge, and promoting the benefits of collaboration. The regional infrastructure and expertise which combines educational facilities of the creative sector and the ICT sector is enhanced and collaboration between the various sectors is seen as a fruitful and necessary thing in order to evolve Lapland's economy and local specialisation strategies.

One of the goals of the project is to create a functional working model where educational institutions can serve local companies. The model shall enable knowledge sharing between various partners:

across higher educational institutions and between them and the local ICT / Cultural industry. The <u>Open</u> <u>Innovation Platform EROI</u> from Emilia Romagna was identified as a relevant approach to raise awareness on open innovation practices and foster connections among the regional innovation ecosystem (SMEs, labs, incubators, start-ups, clusters) while enhancing a collaborative environment. It also provides a blueprint for:

- A web platform for easy resource management across different organisations
- Raising awareness of the various facilities first to the project partners, later to all regional actors

It is also interesting to mention that the different interactions of the local stakeholders in Lapland working on brining ICT and the creative sectors together finally led to the decision of merging the Arctic Development Environments cluster (ArDiCo) and the Arctic Design cluster into one single cluster.

This policy change illustrates the potential of open innovation approaches on regional scale when it comes to foster the development and innovation capacity of new or emerging, often cross-sectoral, economic sectors, which cannot rely on traditional and well-established collaboration structures. The Open Innovation approach can be useful both in terms of governance and generation of innovative activities.

Looking ahead

From a regional policy maker's point of view, there are at least two perspectives to consider when exploring the potential benefits of open innovation approaches in terms of innovation capacities of businesses and the economy in general:

1. Fostering the innovation capacity of businesses

The strong acceptance of open innovation approaches on a global scale and more specifically the experiences made within the Interreg Europe community, as described in this policy brief, clearly demonstrate the strong potential of open innovation for increasing innovation dynamics on the regional level, also for smaller businesses.

However, such approaches are complex to implement for companies:

- Engaging businesses in open innovation requires some time as it implies a change of mindset. Experience shows that initial successes will help to attract and convince further businesses. However, building up and maintaining the connection with the different partners remains hard work.
- Engaging in open innovation requires institutional and personal commitment from the businesses. They need to get involved in the interaction with their innovation partners. The more open and honest the business is about their challenge or need, the better results they get from the open innovation process with students or startups. Withholding crucial information also means that the results will be less applicable.

This is where regional policy makers can play a significant role and deliver much needed support. Building the necessary trust among companies, be they start-ups or medium and large corporates, to engage seriously in open innovation processes often requires **a trusted facilitator**, which can be a public business support organisation.

Tools such as business accelerators, physical and web-based platfoms as well as collaborative approaches to innovation activities are available and have proven their effectiveness.

2. Improving the efficiency of strategic policy delivery

While open innovation approaches often have a strong bottom-up 'open' character, the application of the open innovation paradigm to policy making can also be used to deliver strategic policy priorities.

One way of doing this, for example in the case of regional business accelerators, is to give the accelerator a clear focus (health, mobility, high-tech manufacturing, etc.) in line with regional strategic priorities and to combine the support provided by the accelerator with access to regional funding schemes, thus leveraging innovation activities in that specific priority area.

Open innovation can also facilitate collaboration and networking between different stakeholders, such as companies, universities, research institutes and public authorities. This can lead to the creation of new partnerships and clusters that can strengthen the competitiveness of the regional economy in the areas concerned. Such partnerships are also called **open innovation systems**. They should be thematically aligned with the priorities of the regional smart specialisation strategy.

Finally, the open innovation paradigm can be extended to the way funding instruments are designed and innovation challenges are addressed at the regional level. Similar to enterprises, policy makers can define policy challenges, including policy objectives, and, for example, through open innovation calls, leave it to applicants - without pre-defining activities or pre-determining technology choices - to come up with innovative proposals on how to achieve the defined objectives. This approach has for instance

already been widely taken up by the <u>EIT Knowledge and Innovation Communities</u>, like the <u>Open</u> <u>Innovation Calls</u> from <u>EIT Climate-KIC</u>.

How can the Policy Learning Platform support?

The <u>Interreg Europe Policy Learning Platform</u> can help regional policymakers to better design SME policies by facilitating the exchange of experience from different regional and institutional contexts and showcasing success stories via the <u>Policy Learning Platform good practice database</u>. In addition to the good practice database, the Policy Learning Platform can provide a forum for direct discussions among partners from different projects – either in thematic workshops, peer review learning, or in webinar and online discussions, and provide expert advice through our on-demand <u>policy helpdesk</u> <u>service</u>.

SOURCES OF FURTHER INFORMATION

Some of the above-mentioned aspects have been addressed in part in previous activities of the <u>Interreg Europe</u> Policy Learning Platform or will be tackled in future activities. Here is a list of useful materials:

Other Policy Learning Platform resources

Policy briefs on

- Spaces for innovation
- <u>Digital innovation hubs and demonstrators</u>
- Open, social, and responsible innovation

Stories and articles on

- Open Innovation Challenge boosting the regional entrepreneurial ecosystem
- In search of new products, new markets or innovative ideas?
- Operationalising the Concept of Open Innovation with Open Innovation Platforms

Event learnings

Webinar recording: Competitive advantages through collaboration and innovation

Other aspects related to the innovation capacity of SMEs have been covered in other Platform publications, notably:

Digital transformation – industry 4.0

The digital transformation is acknowledged as a factor of competitiveness for businesses and an engine for growth and welfare for the economy and the territories. The policy brief on <u>Fostering the digital transformation of SMEs</u> provides an overview of good practices and policies from several <u>Interreg Europe</u> projects on how to foster the digital transformation of SMEs, with a focus on traditional sectors and SMEs with low digital maturity. The policy brief on <u>Digital innovation hubs and demonstrators</u> provides an overview of how Digital innovation hubs and demonstrators provides an overview of how Digital innovation hubs and digital demonstrators/testbeds are used for accelerating the uptake of new technologies (e.g. artificial intelligence, blockchain, big data, virtual and augmented reality, etc.) in the processes, products, and services of European SMEs, helping them to be more innovative and more competitive on the global level. Finally, the policy brief on <u>Industry 4.0</u> features policy recommendations using the experience of Interreg Europe projects dealing with Industry 4.0 to offer regions relevant lessons to enrich their own transformative efforts.

Vouchers schemes for innovation

Voucher schemes are among the most popular funding instruments to foster the development of innovation capacities in SMEs. Our policy brief on <u>Vouchers for the competitiveness of SMEs</u> provides a comprehensive overview of the good practices and the policy improvements based on voucher schemes used in various Interreg Europe projects. Further financial instruments have not been covered more specifically yet in our policy briefs.

Skills for innovation

A skilled workforce is essential for the creation, transfer, and diffusion of knowledge and provides a foundation for innovation. For that, regional policymakers are designing regional skills policies to accelerate the innovation process, reduce skills mismatch, and to contribute to transformative changes. In the European Union (EU), the European Skills Agenda is central in driving the Covid-19 economic recovery and promoting the development of new skills for the twin transition toward digital technology and climate neutrality. To know more about successfully upskilling the human capital in the innovation sector, explore the policy brief on <u>Skills for innovation</u>.

#competitiveness #openinnovation



Interreg Europe Policy Learning Platform on SME Competitiveness

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https://interregeurope.eu May 2023

