Innovation for place-based transformations

Collection of practices
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Antonio ANDREONI*, Matthijs JANSSEN**, Christian SAUBLENS***,
Ruslan STEFANOV***, Yannis TOLIAS****, Guia BIANCHI*****,
Solange MIFSUD***** Ramojus REIMERIS*****

Editor: Guia BIANCHI

*Department of Economics, SOAS University of London **Copernicus Institute of Sustainable Development, Utrecht University *** ARC Consulting EOOD / Enterprise Europe Network, Sofia **** Innovatia Systems, Thessaloniki ***** Joint Research Centre, European Commission
The practices collected here include initiatives taken around Europe with different degrees of transformative innovation.

They provide a short summary of what cities, regions and Member States have done to innovate for societal well-being. They can be used to get inspired from examples that illustrate activities and actions described in the ACTIONbook and/or a to contact the leading person or office to initiate a peer-to-peer exchange. They either involve partnerships across departments or across territories and engage a broad of stakeholders. We trust these practices will inspire users to craft their way into raising ambition, building capacities and taking transformative action. Finally, we are extremely thankful to the territories, the people, who provided their stories.

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Addressing green transition and digitalisation through a gaming industry centre

**WHAT** • The gaming industry centre is a strategically significant project poised to galvanize economic diversification in Sisak-Moslavina county, pivoting towards the burgeoning ICT industry. Key components of the centre encompass a gaming industry campus in the town of Novska, the faculty for gaming and gamification, a student dorm, a multifunctional business incubator for esports, and the gaming industry accelerator. The centre builds on previous initiatives, like the PISMO business incubator, which houses approximately 80 startup companies as of 2023. Together with the newly established European digital innovation hub EDIH JURK, the Gaming Industry Centre will provide a set of services for entrepreneurs such as test before invest; experimentation facilities; knowledge, and training in AI, gaming, blockchain and the Internet of Things.

**WHAT FOR** • The underlying objective of the centre resides in leveraging the gaming industry as a conduit for high-value employment and economic rejuvenation, especially for young workers and for those most impacted by the green transition. In addition, it will strengthen the innovation ecosystem through networking at national and EU level.

**WITH WHAT** • The bulk of the construction costs of the gaming industry centre were covered by the Just Transition Fund resources of the Integrated Territorial Programme 2021-2027. Services provided by EDIH are financed by the European Commission, through the Digital Europe programme and the Ministry for Economy and Sustainable Development of the Republic of Croatia. The construction and equipping of the first gaming incubator PISMO was financed by the ERDF. For the preparation of technical documents, project description and the feasibility study for the gaming centre, the Regional coordinator of Sisak-Moslavina county used the technical assistance instrument financed through the Operational Programme Competitiveness and Cohesion 2014-2020.

**LESSONS LEARNT** • Addressing green transition goals in Sisak-Moslavina county through developing the gaming industry required integrated and long-term efforts of many involved stakeholders. Promotion and outreach campaigns were an important part of the process of communicating transition goals to the wider community.
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Basque District for Culture and Creativity

WHAT • The Basque District for Culture and Creativity (BDCC) is a space for our cultural and creative industries. The BDCC was created with the aim of uniting and strengthening the different public and private initiatives aimed at developing the Cultural and Creative Industries (CCIs) in the Basque Country. The BDCC is the space that trains, develops and helps the cultural and creative industries of the Basque Country, promoting the competitiveness and economic strengthening of the sector. The BDCC is an initiative framed within the Euskadi 2030 Science, Technology and Innovation Plan, where the Cultural and Creative Industries sector (Euskadi Creativa) is considered a territory of opportunity in the Basque Smart Specialisation Strategy (RIS3 Euskadi). The Basque Country is one of the 96 European regions that has included CCIs in its smart specialization strategy. The CCIs represents 9.8% of companies in the Basque Country, and 5.31% of total employment. More info in “CCIs in the Basque Country. A journey through the development of the Basque cultural and creative sector”.

WITH WHAT • The BDCC is a country project, jointly coordinated between the Department of Culture and Linguistic Policy and the Department of Economic Development, Sustainability and Environment of the Basque Government (BG). The goal is to establish a European District of Creative Economy to strengthen the Creative and Cultural Industries (CCIs) by enhancing their business and technological skills to support the European transition towards climate neutrality and digital leadership. A team of three people, one coordinator (20% full-time) and two managers (full-time) runs the BDCC. The initiative also relies on a network of regional collaborators such as regional governments, city councils, Basque Government, CCI collaborating entities and CCI Hubs Facilitators.

LESSONS LEARNT • BDCC is a live project that re-invents services listening to the sector. Due to the digital and green deal shift in the economy, companies and employees working in CCIs need to be more creative, cross-sectoral and with wider digital and green skills. So it works fully in line with the policies of the EU and along the following lines:
• Expanding and clustering a network to ensure resilience across EU industrial ecosystems by developing new value chain interconnections in the CCIs
• Creating initiatives for co-development of products and services, using ICT and for a circular economy
• Upskilling and reskilling the workforce and exchanging best practices while bringing together and promoting clustering of sustainable industries and CCIs
• Going global, to promote cross-country, cross-cultural, cross-discipline comparison and integration to define new products and services.

The BDCC is an active member of:
• European Creative Business Network – ECBN
• Districts of Creativity Network
• EIT Culture & Creativity
• New European Bauhaus.

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INTENSITY OF TRANSFORMATION

TERREITORY
Basque Country, Spain

ACTIONBOOK ACTIVITY
Continuously engaging with stakeholders
Designing local missions
Deploying a strategy
Mobilising competences

PARTNERS
leading • GAIA, Association of Applied Knowledge and Technology Industries in the Basque Country (Jokin Garatea – garatea@gaia.es)
with • Basque Government: Departments of Culture and Linguistic Policy and Economic Development, Sustainability and Environment; SPRI (Basque Business Development Agency); Innobasque (Basque Innovation Agency); a network of regional partners.
Boost Dalarna – PRI for Dalarna

WHAT • Boost Dalarna is a 4-year project with a budget of 2.8 MEUR. It aims to radically upgrade the innovation ecosystem and support its actors, including the public sector, in creating demand-driven innovation and systemic change, promoting a green and digital transformation. The project builds upon the learnings from the Partnerships for Regional Innovation (PRI) Pilot and the PRI Playbook. It will include new methods for design thinking, setting up of test-beds, cross-sector collaboration and an increased focus on interregional collaboration with other innovation ecosystems around Europe. The project will also have close links to the recently submitted application for Region Dalarna and North Middle Sweden to become a Regional innovation valley (RIV). They both focus on circular economy and industrial symbiosis and connect SMEs and innovation actors in interregional value chains throughout Europe. Boost Dalarna deals with “collaboration platforms”, consisting of the actors in Dalarna’s innovation support system, to reach an effective implementation of the strategy for smart and sustainable specialization.

WHAT FOR • The project will be crucial for three regions of North Middle Sweden (Dalarna, Gävleborg, and Värmland) in collaboration with regions of East Middle Sweden for the ongoing implementation of the learnings from the PRI Pilot. It will enhance the recently tested methods for entrepreneurial discovery process (EDP) and take on an open discovery process (ODP) based on the PRI Playbook and its methodological framework. The project will also support the development of a more integrated innovation ecosystem in which the regional actors build a stronger base for joint collaboration in the quadruple helix. Parallel to this development process, which is based on the creation of five collaboration platforms (one for each smart specialisation priority), the project will support new methods to strengthen the region’s capacity to work more interregional with actors within Sweden and in Europe where needs and conditions as well as S3-priorities are matching.

WITH WHAT • 4 years/2.8 MEUR

EXPECTED OUTCOMES • Enhance demand driven innovation and mission oriented EDP and ODP processes towards green and digital transition.
Building social and human capital for the twin transition

WHAT • The case illustrates how a “moderate innovator” region seeks to introduce practices aimed at incentivizing and supporting regional firms to invest in skills, improve their management innovation and transformative capability, especially in response to major green transition in the automotive sector.

WHAT FOR • Abruzzo faces an industrial transformation challenge, especially in its core manufacturing sector – automotive. The sector is dominated by large foreign original equipment manufacturers (OEMs), mainly focused on components and assembly of vehicles, and with limited R&D capacity in the region. Moreover, most of the SMEs in the industrial ecosystem are mainly suppliers and have limited innovation intensity. Therefore, the regional government has focused on an innovation-driven strategy to achieve a balanced social, digital and environment development. The region intends to stimulate investments in human capital, such as innovation management, and in infrastructure essential to retain regional cost competitiveness. After having made substantial efforts to invest in R&D+I activities during the ERDF past programming period, the regional government updated its S3 by reviewing the list of activities and introducing key cross-cutting elements regarding digital growth, environment sustainability, cohesion, human capital, and social inclusion. The new S3 strategy was developed through an independent impact assessment of the previous S3 and a participatory process, which has involved various consultative meetings with more than 140 stakeholders from the quadruple helix. A new technical body was introduced to strengthen the governance system and address challenges in the delivery of the strategy. This new body will aim to strengthen the EDP process and explore possible synergies between the different domains of specialization – for example in the context of the ‘green-digital twin’ – and the research community and SMEs.

LESSONS LEARNT • How a region with a strong presence of foreign OEMs and sub-contracting manufacturing activities can adapt its productive capacity to sectoral and technological transformations driven by decarbonisation. • How the introduction of a technical body can help reinforcing the governance system. • How training and upskilling/reskilling activities are essential in a region with a significant share of manufacturing employment concentrated in a core sector like automotive.

P04 - Abruzzo Region, Research and Innovation Office (daniele.antinarella@regione.abruzzo.it) with Regional stakeholders: more than 140 stakeholders. Quadruple helix representatives were involved in numerous events. The region has also partnered with other EU regions members of the Automotive Regions Alliance to suggest most appropriate pathways towards decarbonisation of the sector.
Catalysing interregional exchange channels for S3 collaboration in food security system

WHAT • Coordinated effort by the Baltic Sea Region (BSR) S3 Directors’ Network (DN), involving 10 regions, to engage with and benefit from Partnerships for Regional Innovation (PRI), focusing on innovation-driven collaboration particularly related to food security systems.

WHAT FOR • To enhance and deepen pre-existing engagement efforts, create more effective exchange channels, facilitate action across regions, and foster a deeper investigation into Smart Specialisation Strategies (S3) collaboration under the food security systems theme.

WITH WHAT • The Directors’ Network platform, the learnings from PRI, and the Horizon Europe preparatory action call generated a complementary momentum towards new, concrete, interregional action. In turn, this leveraged the established trust within the network, operational since 2018. With close proximity to director-level decision-making, smoother collaboration was facilitated, to respond rapidly and effectively to a new joint innovation opportunity. The PRI efforts in the BSR were enabled by previous endeavours like the BSR macro-regional strategy. The Horizon Europe Interconnected Innovation Ecosystems preparatory action call provided the spur to boost joint innovation ecosystem efforts, especially across 3 of the regions in the Directors’ Network.

LESSONS LEARNT • The initiative strengthened domestic commitment in and across regions to the Food Systems S3 priority, emboldening a stronger, strategic orientation, and enhancing collaboration among key innovation actors. Furthermore, the PRI facilitated a more results-oriented approach, allowing regions to deepen exploratory methods for enhancing interterritorial collaboration. PRI has helped the BSR regions to generate faster and more effective exchange channels within and across regions. This was a first case example and has provided significant impetus for a continued effort in this domain and others (e.g., hydrogen / renewable energy). PRI has acted as a stepping stone to practical, transition-driven S3 interterritorial collaboration. PRI is critically important for regions who: a) have limited S3 interterritorial experience or capacity where a strategic orientation is needed; and / or b) are experiencing a gap between local reality and ambition (e.g., governance, capacity or political commitment challenges).
Climate-neutral Espoo 2030

WHAT • Espoo is an innovation city committed to ambitious sustainability goals and inclusive city development. As one of the 100 Climate-Neutral and Smart Cities in the EU Mission, Espoo is leading the city-wide transformation towards climate-neutrality by 2030. Despite fast city growth, Espoo has reduced the city’s total CO2 emissions, and adopted ambitious measures to continue the reductions at an increasing pace.

WHAT FOR • The climate action in Espoo focuses on emission reductions from the city’s largest emission sources: energy, transport and land use. In addition, Espoo works to preserve its exceptional green areas - forests covering nearly 60 % of the city’s surface area - as carbon sinks to offset the residual CO2 emissions in 2030. New solutions for reconciling the needs of a growing city and protection of biodiversity are also needed to achieve the city’s ambitious goal of no net loss by 2035.

WITH WHAT • The implementation of the city strategy, the Espoo Story, is supported by the Sustainable Espoo Programme, a strategic cross-sectoral programme owned by the mayor and led by a high-level steering group for long-term, goal-oriented systemic development towards a climate-neutral and sustainable city.

The Espoo’s Climate Watch tool provides clear and accessible information about the current CO2 emissions, potential pathways and measures to climate neutrality. Espoo’s first climate budget, prepared in 2023, makes the goal of climate neutrality more concrete and transparent for citizens, decision-makers and the whole Espoo community. In addition, different funding sources, public-private partnerships and private investment contribute to the goal of climate-neutral city. Espoo’s ambitious goal - climate-neutrality already by 2030 - cannot be reached without close co-operation with various stakeholders and ecosystems.

LESSONS LEARNT • It is important to co-create integrated solutions taking into account simultaneously the systemic effects on all four dimensions: ecological, social, cultural, and economic sustainability. Understanding the interconnectedness of the problem is a starting point which must be followed by understanding how the city contributes to climate change, and capacity building on how to make a positive contribution to reach the ambitious targets. The City needs to act as an orchestrator in co-creating partnerships that bring together resources and expertise in driving change.

City of Espoo, Finland

TERRITORY
Espoo, Finland

ACTIONBOOK ACTIVITY
Agenda setting and sharing
Developing the policy and action mix
Deploying a strategy
Coordinating the policy and action mix

INTENSITY OF TRANSFORMATION

PARTNERS
leading • City of Espoo, Finland
with • Joint commitments with key stakeholders: at the core Fortum, Caruna, Aalto University and Technical Research Centre VTT. In 2023, the city launched new open call for Climate City Commitments welcoming new business, education and research partners.
Enhancing the multilevel and transversal R&I governance system of Aragon

**WHAT** • The Government of Aragon has been working to create a robust, multilevel and transversal S3 governance aimed at fortifying the Aragonian innovation and research ecosystem and at stimulating investments and actions through data-driven decision-making. Aragon S3 Unit supports this governance system and coordinates the continuous monitoring and evaluation of the S3 and its action plans. It promotes interinstitutional coordination, which facilitates the monitoring of the interactions of R&I actions and enables synergies between them. As a result, the Government of Aragon can continuously map the regional R&I situation and its dynamic evolution over time. The established data-collection system enhances co-responsibility between the parties responsible for the coordination of R&I actions at the local, regional, state and European level. The established governance structure involves various transversal thematic working groups, such as research career, innovation and territory, internationalisation: synergy of funds and governance, artificial intelligence, scientific and innovative culture, public procurement for innovation, entrepreneurial and innovative ecosystem, clusters, technology transfer, health and digital transformation in companies.

• Elevate the execution of strategic R&I policies, programs and actions through multilateral cooperation and synchronized action.
• Implement decisions informed by accurate and up-to-date data.

**WITH WHAT** • The resources devoted to the development and implementation of the governance system include primarily contributions from all players involved in the various governance system levels, including quadruple helix entities. This encompasses financial, human, and organizational resources, manifesting as dedicated time, expertise, and collaborative efforts from each participating entity to ensure the efficacy and adaptability of the governance system.

**LESSONS LEARNT** • The endeavor underscored the necessity of:
• Enhanced interinstitutional coordination and information exchange mechanisms.
• Keeping a continually updated actor and action map.
• Promoting synergy amongst funds and resources.
• Facilitating efficient, data-driven decision-making.

These lessons guide iterative improvements to the governance model, emphasizing the importance of agility, collaborative intelligence, and harmonized strategy in navigating the complexities and dynamism inherent to R&I ecosystems.

**WHAT FOR** • This governance initiative seeks to achieve the following primary objectives:
• Streamline regional R&I ecosystem coordination.
• Propel the entrepreneurial discovery process.

**TERRITORY**
Aragon, Spain

**ACTIONBOOK ACTIVITY**
Enabling multilevel cooperation
Mobilising resources
Continuous monitoring
Mobilising competences

**INTENSITY OF TRANSFORMATION**

**PARTNERS**
*leading* • Government of Aragon (rornat@aragon.es / aragoninvestiga.es)
*with* • General Directorate of Science and Research, General Directorate of Industrial Promotion and Innovation, Aragon Exterior (AREX), Instituto Aragoneses de Fomento (IAF) and additional regional Quadruple Helix players.
Gabrovo Innovation Camp(s)

WHAT • Gabrovo has been organizing Innovation Camps since 2016, following the methodology developed by the Joint Research Centre (JRC), being a pioneer in Bulgaria. Gabrovo Innovation Camps (GICs) turned into a valuable source of practical solutions as a result of the collective intelligence of participants. GICs are also a means to align the local policies with the EU guiding principles, assess the policy implementation process according to stakeholder needs and expectations and remodel the strategic development approaches based on data collected on the ground. This way, Gabrovo addresses its development challenges aiming to improved living conditions, city resilience and sustainability with a positive impact on the environment. The Camp began with a peer-to-peer capacity building event on the Knowledge Exchange Platform that served as an activating stage of the event and provided invaluable external expertise and knowledge to participants.

GIC 2022 was focused on the climate neutrality issues, urban development sustainability and its relatedness to the Green Deal; youth involvement in the territory future planning; Gabrovo S3 and how its principles to be related to the general public and searching of ways to ignite citizens and youth regarding the Smart development of the region.

The work was clustered around 4 challenges:
• Bauhaus in re-/co-designing the cities
• Mission-based climate neutral transition
• Youth Entrepreneurship in the digital era
• inclusive innovation and Gabrovo S3 implementation

An assessment of knowledge gaps and capacity shortages was also conducted to capitalize on the creative potential of regional actors to translate findings and concepts into piloting ideas and prototypes. GICs reached multi-faceted societal groups and joined their creative potential in search of territory-relevant solutions and development prospects with the means of open discovery process of the collective intelligence. This is conducted within the light of the EU concepts and grand societal challenges brought down to local needs and expectations.

WITH WHAT • The 2022 the Camp was organised with the support of the European Committee of the Regions, the Directorate-General for Research and Innovation, and the Joint Research Centre. Expert and financial support were received for the Knowledge Exchange Platform.

LESSONS LEARNT • Any creative and inclusive approach that brings together quadruple helix actors in a non-standard way can increase the effectiveness of local and regional policies. Policy making is thus enriched with findings of collective character, external expertise of high level and research, innovative and analytical findings regarding the territory and community development. The Innovation Camps approach is a way to apply policies that are formed bottom-up and are also data-based, community-driven, and territory-related.
Identifying stakeholders for green transformation goals

WHAT • On 28 and 29 March 2019, IDEPA (now SEKUENS) brought together experts in Covadonga to address the industrial transition through the circular economy under the slogan “a natural paradise in modern times”. In Asturias, a strongly industrialised economic model coexists with a natural environment of great value, which raises the need to reach a consensus with society on measures aimed at creating a circular hub in Asturias. The Asturias region is highly specialised in the processing industry, which accounts for 40% of regional industrial employment. At the same time, one third of the territory is protected.

WITH WHAT • The event was funded by the JRC as part of the Science Meets Regions project, subject of a public tender in July 2018. The challenge was addressed in a workshop of one day and a half, and the 38 participants were carefully selected, taking into account their skills and a balanced participation, considering the following profiles and roles:

• Authorities – institutional representation
• Administration – responsible for the challenge
• Scientific and Technological Researchers – technological opportunities
• Socio-economic Researchers – non-technological feasibility
• Industry – establish the objectives and needs
• International/national experts – framing the challenge in the international/national context
• Societal groups – advocate for social responsibility
• Rapporteur – Group leader, drafts conclusions

The methodology used was the “Innovation Camp Methodology Handbook” edited by the JRC. The event was held in a spectacular setting: the Picos de Europa Natural Park (the oldest in Spain), celebrating its 100th anniversary. The venue was organised to encourage open dialogue and explore ideas, with the preparation of a plenary, two spaces for group work, and a meeting place or Agora. A central screen showed real time events to allow social networks to follow and interact. Preparatory work was intense, with the following tasks standing out: carefully preparation of support documentation; selected participants were contacted with detailed instructions for group work; design of outreach tools; adaptation of methodology to challenge; elaboration of manual as a result.

EXPECTED RESULTS • Some recommendations for a participatory process:

• Engage with technical work (avoid outsourcing all tasks);
• Build key partnerships (e.g., with industry leading this process);
• Identify and engage with appropriate firm individuals/entity (e.g., R&D and environmental departments);
• Strong legal barriers (avoid involving only research and innovation or economy ministries, go broader, e.g. environment);
• Monitor continuously, to identify unexpected results.
Improved joined RIS3 in East and North Finland

WHAT • This practice is an example of how different regions within the same country can partner to develop integrated smart specialisation strategies, share best practices, and incorporate global challenges into their policies.

The seven regions of East and North Finland developed their joined Smart Specialisation Strategy further via participation to the PRI Pilot. The most substantial changes made were those involving relevant stakeholders (clusters) into the planning and implementation process. Additionally, the view of economic RIS3 was developed to answer the question: what challenges may we solve in a global perspective? Furthermore, the process enabled East and North Finland regional experts to grow their expertise and form better RIS3 results monitoring for the new joined RIS3.

WHAT FOR • The regions of East and North Finland needed a new joined Smart Specialisation Strategy 2024 onwards.

WITH WHAT • The RIS3 work and PRI participation was done via European Regional Development Funded project Smart Specialisation in East and North Finland 2022–2027 (ELMO II) that received its funding from Regional Council of Northern Savo. The project was implemented and carried out by the Regional Council of Lapland. The process involved experts from all seven regions.

LESSONS LEARNT • Regions of East and North Finland were able to upgrade the understanding of RIS3 of regional experts. The lessons were directly implemented into the joined Smart Specialisation Strategy of East and North Finland that will set in place 1.1.2024.

• Each of the seven regions have their own Smart Specialisation Strategy. The regional experts in the process may utilise their newly learned skills for their own regions RIS3 also.

TERREITORY
East and North Finland, Finland

ACTIONBOOK ACTIVITY
Developing transition pathways and roadmaps
Diagnosing and developing a vision
Collaborating across territories
Continuous monitoring

INTENSITY OF TRANSFORMATION

PARTNERS
leading • Lapland and East and North Finland
EU-office
with • Northern Ostrobothnia, Central Ostrobothnia, Kainuu, Northern Karelia, Northern Savo, South Savo
JeloviZA - Preparing a management model based on ecosystem services in decision-making processes

WHAT • The project addresses the challenges of climate change in Jelovica, the lack of a management plan for the area, and the past weak participation of residents in the preparation of strategic documents of the municipalities. The main objective of JeloviZA is to improve Ecosystems; foster the conservation of vulnerable species of Natura 2000 at Jelovica; and prepare a management model based on ecosystem services in decision-making processes. This is needed to rehabilitate, restore and provide efficient ecosystem services to the damaged mountain forest ecosystem in the territory as soon as possible. Due to the effects of climate change, up to 34% of the total timber cover in Jelovica has been cut down in the last 10 years. This model will be introduced in strategic development documents of the municipalities through public involvement, strategic communication, education, and building a support network in the local area. To achieve this, specific objectives include:

- inventory and assessment of ecosystem services;
- restoration of 20ha of affected forest areas with more climate-resistant species;
- expert training to carry out the Jelovica management model in the future;
- model elaboration with different stakeholders, establishment of a strong regional network of stakeholders who will also commit to the implementation of the Jelovica management model (Memorandum of Understanding of the main stakeholders);
- creation of a social environment that supports the Jelovica Management Model and the sustainable development of the territory.

WITH WHAT • The project JeloviZA benefits from a 1.143.298 € grant from Iceland, Liechtenstein and Norway through the European Economic Area grants.

EXPECTED OUTCOME • restoration, protection and monitoring of the 20ha damaged forest by planting indigenous/native tree species for greater resilience of the ecosystem;
- protection of habitat trees for greater diversity of the habitat of species;
- management model based on ecosystem services in decision-making process;
- installation of traffic and pedestrian counters and preparation of a space load assessment;
- activities for stakeholders, such as the transfer of good practices, trainings, discussions and workshops, with which we achieve greater competence and expertise in ecosystem management;
- list and evaluate ecosystem services in the area.
Leveraging regional multi-stakeholders consortia for transformative change

**WHAT**  - Emilia-Romagna Region intends to:
- make available the experience of the open discovery process carried out as part of the S3 2021-27, in particular through the involvement of the regional Clust-ERs and with the support of the “Emilia-Romagna Open Innovation platform Romagna” EROI;
- share the methodology developed under the H2020 project TeRRItoria “Territorial responsible research and innovation through the involvement of local R&I actors”, an experiment of public engagement for the co-design of RIS3 open to social stakeholders, allowing stable dialogue with civil society and the people they represent;
- improve the capacity to move from a general strategic framework to concrete transformative innovation agendas for green transition, ensuring an inclusive approach with territories and civil society, defining instruments and actions for the their implementation;
- strengthen the ability to define strategies and actions to support sustainable transition coordinated between the different levels of government and able to maximize impact, thanks to a synergic use of the various programming tools both at European, national and regional level.

**WITH WHAT**  - For the implementation of the activities envisaged as part of the Pilot Action, the Region can leverage ART-ER Attractiveness Research Territorial Actionbook, the Emilia-Romagna Joint Stock Consortium born with the purpose of fostering the region’s sustainable growth by developing innovation and knowledge, attractiveness and internationalization of the region.

**LESSONS LEARNED**
- Strategic actions can be only delivered when a challenge-based approach is adopted, the approach is also socially driven and innovation directed, and, finally, the approach captures transversal and cross-sectoral priorities.
- Multi-layered governance structures are important in implementation and should involve multiple stakeholders. Having an implementation agency that operates as a multi-stakeholder consortia can help translating the political strategy into action.
More efficient S3 prioritization and monitoring through a Geographic Macro Regional (GMR) model

WHAT • The Geographic Macro Regional (GMR) model is an economic impact analysis tool that can simulate the impact of various development policy interventions in terms of key economic variables (output, employment, prices). The sectoral and regionally disaggregated nature of the model enables monitoring these effects in detail both at the level of counties and sectors, while also taking into account territorial and sectoral feedback and synergies. The model was used in the prioritization phase of S3 in Hungary, where it supported the investigation of the development and innovation potential of individual sectors in the framework of an ex ante analysis at the county level. The model is also intended to be used to monitor S3, especially during evaluation to take account of any dynamic developments. At a next step, the model could be extended to include environmental variables and thus cover also societal challenges and goals.

WHAT FOR • The aim of the GMR model is to prioritise sectors where innovative investment can help the region embark on a path of sectoral modernisation and growth. The GMR model results were used to focus on sectors with strong growth potential in the national aggregation. The prioritisation was carried out by translating the S3 theoretical framework into practice by the GMR model.

WITH WHAT • The initial model was developed by the University of Pécs, and was used in partnership with NRDIO during the elaboration of the 2021-27 national S3. Based on the positive experiences of the partnership, NRDIO and the University joined forces to establish the S3 monitoring and evaluation framework.

LESSONS LEARNT • The GMR model data can be integrated into the S3 design. It can be further developed and adapted to address environmental and other social aspects through the inclusion of additional variables. One of the main advantages of the GMR model is that it ranks sectors according to, among other things, their growth potential.
Portuguese Digital Identity Wallet - id.gov.pt

**WHAT** • The ID.gov.pt mobile application (2019) is a digital wallet, developed by the Administrative Modernization Agency. It allows citizens to keep and consult their ID cards anytime and anywhere. Among the 12 documents available, there is the Citizen Card, the driving license, the car property document (single car document) or the ADSE card (health subsystem of public servants). It is also possible to use it offline, and other cards will be soon available on the app.

This application is based on the Digital Mobile Key electronic authentication. It uses the national interoperability platform to retrieve the data from the relevant base registries and complies with eIDAS regulation. The data are stored (temporarily) in the app and are updated every 24 hours. Citizens can also validate their virtual ID documents using the authentic data sources emitted by them.

**WITH WHAT** • The development of ID.GOV.PT was led by AMA, with different departments (eg. Legal, Usability, Communication, IT Infrastructures, Digital Platforms, Interoperability) into a multidisciplinary and agile project team supported by AMA’s Board of Directors. The financial resources are ensured by the State Budget (AMA’s own budget). ID.GOV is a strong example of the Portuguese investment in the digital transition, focusing on the mobile channel to provide a simpler and easier Citizen-State relationship.

**LESSONS LEARNT** • The main lesson that emerged from the development of ID.gov was to thoroughly ensure a coherent legal framework to attribute equal legal and probative value to the documents available in the application.

**TERRETY** Portugal

**ACTIONBOOK ACTIVITIES**
Collaborating across departments
Diagnosing and developing a vision
Prioritising funds

**INTENSITY OF TRANSFORMATION**

**PARTNERS**
**leading** • Leading partner: Fernando Moreira (fernando.moreira@ama.gov.pt) Agência para a Modernização Administrativa (AMA)

**with** • Institute for Mobility and Transports, Institute of Registries and Notary, Institute for Financial Management and Equipment of Justice, Tributary and Customs Authority, Institute of Social Security, Shared Services Ministry of Health, Insurance and Pension Funds Supervisory Authority
Regional animators of economic development

WHAT • Regional animators are enlisted to support the entrepreneurial discovery process (EDP) through calls for tenders for public benefit organisations (PBOs). The PBOs use co-financing to organize meetings for entrepreneurs (trainings, workshops, study visits, etc.) enabling the exchange of knowledge and obtaining feedback that may allow the identification of needs or new trends affecting the regional innovation ecosystem and its smart specialisation. The calls are carried out on an annual basis. Each year, up to 7 grants are awarded.

WHAT FOR • The Smart Specialisation Review carried out in 2019 highlighted the need to increase the involvement of non-governmental economic development animators, in the EDP. The calls for tenders aim to decentralise knowledge exchange with stakeholders, making it more grassroots and less influenced by the voivodship government's perspective. The goal is to enhance the EDP by leveraging the resources and expertise of regional PBOs in supporting business development, while also elevating awareness among PBOs and entrepreneurs from the region on specific issues – such as the development of Industry 4.0 in the 2023 call.

WITH WHAT • Financial resources: Approx. EUR 98,000 per edition.
• Human resources: Approx. 10 individuals to form the evaluation committee.
• Organizational resources: Established procedures and regulations for the call; PBOs from the region capable of preparing high quality offers and executing the tasks with high quality and on time.

LESSONS LEARNT • The first edition of a new type of open call for tenders should be a pilot action, allowing to test communication matters, evaluation criteria, financing adequacy, and the ability of organizations from the region to submit accurate tenders, among other aspects. Subsequent editions should be more precise about the tender elements, such as specifying the thematic scope of meetings with entrepreneurs. It is necessary to balance expectations with the regional PBOs' potential, ensuring an adequate number of offers for evaluation.

SOURCE
The Office of the Marshal of the Masovian Voivodeship in Warsaw, Department of Regional Development and European Funds (dsrr@mazovia.pl)

PARTNERS
Chambers of commerce, foundations, associations and other Public Benefit Organizations (PBOs) from the Mazowieckie Voivodeship (stakeholders rotate with each edition).
Regional strategy for digital skills and culture 2021-2025

WHAT • This practice provides an example of the importance of multi-stakeholders and multilevel coordination, especially for those initiative involving transversal technologies and changes in skills at all levels. The strategy, being a new policy initiative, defines actions and specific projects on digital skills addressed to citizens and local governments, local entities and local communities (including enterprises and business). It is aimed at increasing and disseminate competences and new digital knowledge (basic and advanced digital skills) in the entire territory. The Strategy is articulated into 4 axes: Digital Citizenship, Skills for the Digital Economy, Digital Education, and Digital Jobs. Within each single axis, the actions identified define output, target, actors involved, synergies, activities and funding instruments.

WHAT FOR • The strategy brings together ongoing and new projects defined by different actors and government departments. It will enable the Regional Government to define actions to improve digital skills in a consistent manner and in synergy with other regional strategies and objectives. The coherent framework will also facilitate the monitoring and assessment of the actions results toward strategic objectives and skills needs.

WITH WHAT • The elaboration of the strategy is based on the work of an interservice Working Group consisting of several regional departments (Innovation, Education & Employment Industry, Agriculture, Health & social services). The actions and projects identified in the strategy are and will be implemented through different funding instruments: RRP, ESF+, ERDF, Regional Funds, National funds.

LESSONS LEARNT • Cooperation among different territorial stakeholders should be strengthened to reinforce the regional ecosystem for digital skills.
• Important to build synergies between (1) different policy instruments (e.g. S3 & innovation) to improve digital skills at regional level with respect to DESI; (2) funding instrument (EU, national, regional) to target skills.
• Critical to improve tools to assess skill needs and gaps at regional level and monitor the impact of policy instruments. The involvement of stakeholders in the assessment (Universities, Industries, SMEs, Local governments, citizens...) is key.
• Relevance of involving Statistical Offices for monitoring and tracking KPIs.
RIS3 Extremadura monitoring tool

WHAT • The Monitoring and Evaluation System of the RIS3 of Extremadura has been implemented through the creation of a regional R&D+I Observatory. From the work carried out in the first years of the 2014-2020 period, three major problems were identified in the RIS3 Extremadura Monitoring System:  
• lack of granular data on R&D activities and results, with sufficient detail and frequency of updating. 
• difficulty in classifying R&D activities and results in the S3 areas of specialisation, which are not in line with classical classifications of economic and/or scientific activity. 
• partial and segmented view of policies, due to the lack of integrated data from the R&D support instruments at regional, national and European level.
To solve these problems an open data tool for monitoring the smart specialisation process in the region was launched in 2019. The tool integrates external (Horizon Europe, National calls) and internal data (Regional calls) on the regional R&D activities, allowing, through interactive visualisations and full access to the data, an in-depth exploration of the regional ecosystem. The structure of the monitoring tool is based on a series of applicable filters. Thus, the user could cross-reference data from “funding source” with “specialisation area”, as well as other filters (temporal, SDG-related, type of entity involved, etc.) and thus narrow down the search for the subsequent visualisation of the data. In addition, all information is downloadable in Excel format and accessible under Open Data standards through a SPARQL console.
The ultimate goal of the tool is to provide evidence for analysis and decision-making on public R&D+I policies at regional level.

WITH WHAT • The R&D&I Observatory is financed by the Extremadura Regional Government through the ERDF Operational Programme. A team of about 6 people (not full time) work on the tasks related to the maintenance, updating and improvement of the tool, as well as on other activities of the Observatory. The average annual budget is around 100,000 euros.

LESSONS LEARNT • The RIS3 monitoring tool is the result of a collaborative work between the Technical Office and different actors in the region’s R&D&I ecosystem, in order to develop it in response to the needs of these actors. This approach has been very positive and allows to keep the tool in constant evolution and improvement, introducing new features whenever necessary. Time: between 6 and 12 months.
ROSEWOOD4.0
Network of european regions for sustainable wood mobilisation ready for digitalisation

WHAT • The practice is an example of how regional authorities can make use of interregional formats to advance their S3/S4 goals and establish mutually beneficial sustainable networks. Following the successful conclusion of the H2020 ROSEWOOD Network project (2018-2020) initially extended within the H2020 ROSEWOOD 4.0 Network project (2020-2022), partners committed to continue collaborating during a transition period from 1 July 2022 to 31 December 2023. This collaboration was aimed at ensuring the sustainability of the ROSEWOOD4.0 project activities and the exploitation of its results.

WHAT FOR • Recognising the value and benefits of the multi-regional collaboration, interested partners have committed to continue being active within the network in a regular way to discuss opportunities and actions in relation to digital solutions and tools in sustainable wood mobilization. Meetings are held every three months and entails several activities, including exchanging information, identifying further activities, discussing potential funding opportunities, etc. Moreover, for the Knowledge Platform, the EFI’s Bioregions facility devoted efforts to use and maintain the Platform. This ensured that the Platform and its content (e.g. factsheets, videos) is online and reachable for the visitors in the long-term. Network members have kept working as editors on the Knowledge Platform to continuously added new BP&I. This includes the publication of the ROSEWOOD4.0 Newsletter (4 times a year) with information regarding International and national forest events, new initiatives (e.g. launching of new projects dealing with the forest sector) and another relevant information for foresters and related stakeholders.

WITH WHAT • From 01 July 2022, the ROSEWOOD4.0 Network continued working on a voluntary basis with the contribution of all the project partners, their commitment and willingness to follow with the network’s activities.

LESSONS LEARNT
• Project implementation follow-up activities are necessary to fully utilize project results.
• Sustainability of valuable project results requires network initiatives and flexible forms.
• Multi-regional sector/technology focused initiatives provide members with an opportunity to strengthen collaboration, share new ideas and new information, gain a different perspective and develop long-lasting relations.
Innovation for place-based transformations / Collection of practices / B22

Rural Urban Hub Cluj

WHAT • This practice is an example of how bottom-up processes can involve communities in finding local solutions, develop learning opportunities and address rising divides. While the European Missions are working to identify solutions and innovations that will help us collectively achieve the twin green and digital transition, it is also important to promote societal mindset change – especially in communities that are very divided and deprived of access to learning opportunities. The Rural Urban Hub Cluj is a bottom-up process initiated by the local community and co-designed by the Cluster of Education C-Edu to incubate potential societal innovations. Spatially, the Rural Urban Hub covers one city (Cluj-Napoca) and two communes of the Metropolitan area (Ciurila – on the first ring, and Petrestii de Jos- on the second ring). Finding scalable and multipliable ways to gain adoption on innovation and future solutions, from all, not just those with access to more resources, is key to ensure sustainable and measurable implementation of the European Cohesion Policy. Start-up Village Landscape is an experimental initiative taking place in a group of villages in the Metropolitan area of the city of Cluj-Napoca led by the Cluster of education C-EDU since 2021. It aims to enhance job opportunities and quality of life in rural areas by leveraging the competitive advantages of urban areas through innovation and entrepreneurship. To achieve this, the experiment focuses on developing transport and digital infrastructure, boosting the local economy, strengthening administrative and community capacity, refining tourism potential, and improving the quality-of-life indicators.

WITH WHAT • The most important resource is human capital and knowledge provided by stakeholders in the community, including public sector experts, university and business advisors, and local rural leaders and community drivers. These resources were essential to drive the experiment. Public finance from the local administration were accessed as local grants to initiate the first concrete projects. Applications to European funding were also done in specific programs and projects on topics such as climate adaptation, digital transformation, and knowledge sharing (e.g., Horizon, Urbact, Erasmus).

LESSONS LEARNT • Imagining future scenarios and and taking action requires more time that initially envisioned. • Onboarding people is crucial, and securing resources is essential to make relevant progress. After gaining attention from actors, there is a specific moment in which resources are needed to progress otherwise the risk of losing trust in the process is extremely high. • It is essential to be aware of other people challenges while implementing solutions – start building communities of peers to push testing and adoption. • Progress is hindered by the excessive theoretical nature of the preliminary research phase, while the development of a trusting atmosphere and human connections amongst key stakeholders is identified as the primary factor contributing to its success.
S3 SUMMIT: Regional mission inside the Smart Specialization Strategy

**WHAT** • The Summit helped identify challenges and turn them into local missions. The mission development process requires new collaboration methods between different stakeholders and regions. Hence, creating partnerships is essential for the success of the whole process. Three different events were organized to explore Smart Specialization with a multilevel approach involving regional, national, and international stakeholders.

The key elements of the exchange of views were:

a. **1ª Jornada RIS3 Açores** – involving public disclosure of RIS3 2022-2027, and addressing two central themes: the new RIS3 Azores and the European Funds available for Research and Innovation. Participants were from Azores quadruple helix.

b. **Innovation and Smart Specialization Forum** - The Forum, with peer learning sessions, roundtables, and networking events. The attendees were key stakeholders from the S3 community of practice at European, national, and regional levels.

c. **Partnerships for Regional Innovation learning journey:** co-creating (inter)regional missions - This workshop focused on practical hands-on work to develop a mission approach, starting from local potential and opportunities of interregional collaboration. It set the ground for all participants to start their mission initiatives. Attendees were primarily PRI Pilot participants and key stakeholders from the S3 Community of Practice at different levels.

Participants reviewed key concepts and practical steps to co-create (inter)regional missions with a construction game. This game consisted of three groups focused on challenges previously proposed by regional stakeholders and shortlisted by JRC. The exercise implied that the challenge was tackled by defining a goal, activities, inputs/outputs, outcomes and the desired impact. The result was delivered to the Azores S3 governance bodies as a background for the future mission definition in the archipelago.

**WITH WHAT** • The S3 SUMMIT was organised with the own entity funds and human/technical resources of the Regional Directorate for Science and Technology (DRCT, Regional Government of Azores), the National Innovation Agency (ANI), and the Joint Research Centre (JRC).

**LESSONS LEARNT**

• Challenge-oriented missions demand a high involvement with all relevant stakeholders (4helix).

• Mission definition requires a consensus, which is difficult to achieve.

• There are regions in Europe that are more advanced in this process than the Azores, from which we might benefit from their experience.

• The mission approach might be valuable for the intelligent specialization strategy post-2027.

After its success, the organisers intend to reproduce this initiative every year.
Setting priority research directions within smart specialisation

WHAT  • Engaging in workshop meetings, videoconferences and online consultations (utilising argumentation mapping software) for working groups on smart specialisation to develop “Priority research directions within the smart specialisation of the Mazowieckie Voivodeship”. This guidance document co-created by stakeholders who actively shape and even directly edit it online during discussions, outlines the structure, content, and priority research directions for implementing S3. Participants submit proposals, present their justification based on the potential and trends in the regional economy, and convince other participants of the need to include a given direction in the document. The first edition of priority research directions was developed in 2016, while the fourth version was adopted in 2022. Evaluations and external expertise assist the collaborative efforts.

WHAT FOR  • “Research Directions” serve as guidelines, stipulated in the Mazowieckie’s RIS3, pinpointing priorities for R&D&I projects within smart specialisation areas. They establish a foundation for an enabling criterion in the regional jobs and growth programme’s calls concerning R&D&I, ensuring funds are concentrated accordingly. In essence, the working groups are pivotal in steering intervention within the areas described in RIS3, down to the precise articulation of each direction. Placing priority research directions outside the strategy itself allows for updating the list without launching the time-consuming process of updating the entire RIS3. This ensures agile, timely responses to feedback from stakeholders and maintaining active engagement with and within the working groups.

WITH WHAT  • Financial resources: Evaluations, expertise – variable; EUR 110,000 annual average (2021–2023).  
• Human resources: 2-4 discussion-facilitating employees.  
• Organizational resources: Working groups encompassing a considerable number of enterprises, universities, institutes, etc.  
• Time resources: Several months and multiple meetings for the initial version; a minimum of 2 meetings for each specialisation area per update.

LESSONS LEARNT  • Online meetings cannot fully substitute face-to-face interactions, which prove superior during the idea formulation and document shaping stages. Online meetings can be effective if they involve pre-structured material and follow a top-down script, yet traditional in-person meetings may prevail in efficiency. Additionally, the opportunity to meet and discuss common research topics is conducive to establishing contacts between organisations. When conducted regularly, such meetings may help consolidate the regional R&D&I ecosystem.
Smart specialisation panels and metapanels

WHAT • Smart specialisation panels and metapanels are systematic, creative meetings among stakeholders. Panels are related to a specific element of the smart specialisation, while metapanels cover all of them. Individual panels are composed of entrepreneurs, representatives of the R&D&I sector, business environment institutions, and other stakeholders. Working groups may be formed inside panels for a variety of objectives, such as developing potential projects or project proposals. Panel stakeholders also discuss topics related to innovation management system in the region, systemic barriers to cooperation between business and science as well as bottlenecks in the diffusion of innovation. Those bottlenecks are resulting, among others, from the dispersion of funding. Meetings are scheduled to discuss the industry's existing demands and challenges that might impact on its future development. For a successful implementation of the entrepreneurial discovery process (EDP), the stakeholder list is systematically examined and expanded. Additionally, details regarding how the panel/forum will be organized are available on the website www.rsi.podkarpackie.pl so that any interested organizations working in a particular field of expertise can attend the event with an attendance of 25-40 people according to the specialization topics.

WHAT FOR • Designing collaborative projects and identifying solutions pertinent to the smart specialisation agenda are the main goals of panels. The Subcarpathian Innovation Council considers any proposals and ideas that have emerged and demonstrate a substantial impact on the direction of innovation policy before presenting them to the Province Board. These gatherings provide a stakeholder forum to have conversations about topics covered by the regional smart specialisation strategy and share knowledge, ideas, best practices, and experiences.

WITH WHAT • All activities are funded by the province’s self-government financial resources allocated to the initiative entitled "Smart specialisation - a tool for growth of innovation and competitiveness of the Suceava Province" implemented under the ROP WP 2014-2020.

LESSONS LEARNT • Determining business sectors where joint action and creative ideas are feasible, including synergies and opportunities for trans-regional cooperation; identifying potential funding sources for economic areas proposed by panels; receiving support from national and regional levels.
• Providing recommendations for regional and national innovation support systems;
• Identifying emerging R&D+I fields with regional or interregional potential that may later be included in the smart specialization strategy;
• Developing specific initiatives that can be applied for funding from national and regional operational programs or any other sources.

Innovation for place-based transformations / Collection of practices / B25
Support of regional innovation strategy’s stakeholders

**WHAT**  - The regional self-government has steadily built up a comprehensive public system to strengthen the capacity of stakeholders to foster innovation. Synergies contributed to set up a value chain boosting innovation in the region. This system includes the following organisations:

- Podkarpackie Science Center "Łukasiewicz": supporting innovation among residents of the Subcarpathian region, in particular children and young people.
- Subcarpathian Innovation Center: supporting all phases of developing innovative solutions by students and researchers.
- Rzeszow Regional Development Agency: supporting businesses in early stages, including incubation, and providing basic and specialised services.
- The Subcarpathian Development Fund: enabling scaling SMEs activities, strengthening their competitiveness through repayable instruments.
- The Voivodeship Labor Office in Rzeszów: strengthening regional human resources potential.
- The Convention and Exhibition Centre G2A Arena: organizing events for networking and sharing knowledge.

These entities have allowed regional authorities to build a path to strengthen innovation and competitiveness of the regional economy by providing complementary support. All these institutions were created as independent organisations and are now crucial components of the Subcarpathian Province innovation ecosystem.

**WITH WHAT**  - All activities connected with implementation of Regional Innovation Strategy are based on the financial resources of the Self-Government of the Province project entitled Smart specialisations - a tool for growth of innovation and competitiveness of the Podkarpackie Province implemented under the ROP WP 2014-2020.

**LESSONS LEARNT**  - Responsibilities of the self-government go beyond funding provision. It needs to set up the necessary conditions for entrepreneurship and an entrepreneurial ecosystem to flourish in the territory.
Technology transfer and commercialisation of innovation

**WHAT** • This practice is an example of how regional governments can promote technology transfer and leverage their regional ecosystems to promote industrial innovation.

**WHAT FOR** • The objectives are to increase the levels of effective collaboration and technology transfer between the business environment and the academic world, researcher or knowledge generator, promoting the real application of results and use by the business sector. By taking advantage of the entire regional ecosystem, addressing the intermediation and among stakeholders roles and activities, firm innovation capacity is increased via:
1. Technology transfer.
2. Technological innovation stimulation.
3. Technological innovation valorisation and application in industry.

**WHY** • The leading regional authority has adopted a variety of instruments and practices aimed at different stakeholders:
- public-private partnerships;
- use of R&D results;
- new technology-based firm creation and growth;
- SMEs participation in European projects supported by regional ecosystem;
- service supply to firms in relation to R&I activities (e.g., consultancy, mentorship, intellectual property rights, etc.);
- technology transfer tools
- ecosystem knowledge management.

Some examples include:
- National Council of Research: hiring CEOs for spin-offs to reinforce business orientation;
- PONS Foundation: platform for free intellectual property rights provision to SMEs;
- Carlos III University: free patent assignment and mentorship.

**WITH WHAT** • The regional calls, with a total budget of 1.200.000 euros for 2023, are co-financed within the FEDER (2014-2020) 2021-2027 Operational Program of the Community of Madrid. FEDER will co-finance (50%) 40% of the aid, that is, (25%) 20% of the eligible costs of the projects, within the OP1 political objective: “A smarter Europe, promoting an innovative and intelligent economic transformation”; Specific objective 1.1: “Development and improvement of research and innovation capacities and the implementation of advanced technologies”; Specific priority P1 A: “Digital and intelligent transition”. The 3 years projects should have a budget of 150-900 K€.

**LESSONS LEARNT** • Calls focusing on technology transfer and commercialisation of innovation can have a huge leveraging effect on the provision of added-value services and have a major socioeconomic impact. Emergence of (partially) unexpected synergies among entities and platforms within the regional innovation ecosystem. Among the risks identified, initiatives should avoid the consolidation of suboptimal/inefficient infrastructures.
The journey of Northern Netherlands in tackling societal challenges through S3

WHAT • Northern Netherlands (NN) has embraced S3, navigating societal challenges through a bottom-up identification of priorities, to foster regional economic transformation. Since 2019, NN has strategically placed societal challenges at the core of its approach to S3, identifying four key challenges for the period 2021-2027: health, food, water, and sustainable energy. These challenges (called Transitions) are based on the competences possessed by the region and are tackled by pursuing specialization opportunities through an ongoing process of entrepreneurial discovery.

WHAT FOR • To create solutions for societal challenges while simultaneously capitalizing on specialization opportunities that benefit the region, aligning initiatives with European goals and the UN’s Sustainable Development Goals for 2030. Linking societal challenges to form missions and operationalizing them, albeit difficult, has been integral in achieving the S3 objectives.

WITH WHAT • Leveraging two key characteristics: a bottom-up attitude and a tendency to collaborate, while also engaging in policy experimentation (e.g., Open Innovation Call, REACT EU) to foster an innovative ecosystem and shorten the distance between actors. The initiative, rooted in prior strategies and activities, particularly underscores the forthcoming 2021-2027 programming period, integrating existing and emerging funding streams from national and European sources to deliver maximum impact.

LESSONS LEARNT • Fusing S3 and mission-oriented innovation is possible but demands a careful, step-wise approach to weave a productive innovation dance.
• The bottom-up approach, while effective in certain contexts (NN), could be complemented by more top-down strategies for a balanced direction.
• Specializations and advancements in transitions are possible through continuous entrepreneurial discovery, which necessitates a fertile climate, both from the actors and governmental initiatives.
• Policy experimentation is not just for societal actors but also vital for government operations, influencing stakeholder participation and governance structures.

location: Northern Netherlands, The Netherlands

partners
• SNN Northern Netherlands Alliance (Luc Hulsman, RIS3 Manager - info@snn.nl) including Friesland Province, Groningen Province, and Drenthe Province.
• Entrepreneurs, knowledge centres, social organizations, and other stakeholders in the societal and economic sectors of the Northern Netherlands.

“the dance floor” metaphor has been adopted, where diverse stakeholders coalesce to develop and grow grassroots ideas and initiatives. The government plays a facilitating role, creating conducive climates for idea genesis and project development, without direct decision-making involvement.
Towards S4Andalucia governance model: synergies with interregional cooperation initiatives

**WHAT**  • The practice is an example of how regional authorities can make use of interregional formats to advance their S3/S4 goals. It includes the following elements, defined by the S4Andalucia model:
- Creation of a working group in the framework of the Regions4Food project, linked to Agrotechnology, one of the S4Andalucia priorities.
- Organisation of a pilot Workshop, where quadruple helix representatives debated the Agrotechnology specialization domain.
- The workshop came out with recommendations regarding the specific Agrotechnology field.

The meetings of the Group followed an open debate mechanism allowing more effective decision-making, as well as a subsequent evaluation of the results.

**WHAT FOR**  • Advancing and testing the tools foreseen by S4Andalucia governance model to improve and maintain a continuous discovery process with the quadruple helix during the implementation period of the regional Strategy. Leveraging interregional cooperation actions and mechanisms to promote and implement the S4Andalucia governance model.

**WITH WHAT**  • The organisation and coordination of the specific working group counted on contributions from various stakeholders. The Technical Office of S4 Andalusia (IDEA Agency / TRADE), prepared the meeting, in coordination with the Regional Ministry of University, Research and Innovation and the Regional Ministry of Agriculture, Fisheries, Water and Rural Development (leading the Regions4Food project), which offered its premises and dedicated technical assistance to help energise the workshop. The S3Platform for Traceability and Big Data of the Andalusian Agriculture Ministry had an active presence. The meeting counted on the valuable support of JRC PRI Team.

**LESSONS LEARNT**
- Transformative innovation policies demand new approaches, based on co-creation and collective thinking.
- Interregional cooperation can benefit regional innovation and S3/S4 Strategies. EU Territorial Cooperation initiatives can help regional policymakers better address common EU challenges and seek synergies to become more resilient and responsive to them.
- Thematic Partnerships can become platforms and open opportunities for the implementation of S3/S4 innovation policies and governance models.
Transformative innovation funding experimentation: towards challenge and vision-oriented approaches

WHAT • Northern Netherlands developed an experimental approach to funding, which could help spur transformative innovation and more productive and creative regional stakeholder interaction. The regional S3 authority has sought to combine European Regional Development Fund (ERDF) financing with the Regional Innovation Strategy for Smart Specialisation of Northern Netherlands. Beginning in 2017, Northern Netherlands experimented with the Open Innovation Call, which focused on objectives, rather than activities. The call itself was designed as a challenge, inviting stakeholders already in the design phase. In 2020 it followed up with the Open Innovation Call 2.0, which sought to involve stakeholders in the call design and implementation by presenting them with an S3 identified challenge, which they had to tackle in a no-framework, no-paper, feet on the table intensive collaboration sessions. The experimentation continued in 2023 by moving to vision funding, aimed at harvesting specialization opportunities, following out of S3 and at translating vision into an “investment agenda”.

WHAT FOR • The endeavour sought to amplify the impact of ERDF by not only supporting projects but also shaping the way actors collaborate and interact, aiming at more transformative innovation outcomes.

WITH WHAT • The process was driven from the regional S3 authority and involved the drive to sustain experimentation with the limited resources at hand. Approximately €100 million of ERDF financing in the 2021 – 2027 period. The single visioning initiative developed in 2023 amounted to €5 million.

LESSONS LEARNT • The experiments brought forth valuable insights into the potent synergy of clear, challenge-oriented objectives and flexible funding structures. Focusing on objectives, as opposed to rigid activities, fostered an environment where innovators were motivated by clear societal and ecosystem challenges, allowing them to navigate through innovative solutions with a degree of freedom. Furthermore, stakeholder involvement in the design and implementation phases bolstered a more inclusive, collaborative, and efficient utilization of funds and resources, ensuring that initiatives were tailored to genuine needs and opportunities within the ecosystem.
Transforming Međimurje for innovation: the Knowledge Centre

**WHAT** • The Knowledge Centre of Međimurje County represents a decade long initiative for the transformation of former military barracks into a vibrant ecosystem of public and educational institutions, companies and associations dedicated to innovation support in Croatia. The Centre includes the Business incubator TICM, the energy agency MENEA, the University of Applied Sciences MEV with student’s dorm and R&D institution Metal centre.

**WHAT FOR** • The Centre of Knowledge represents an innovative urban regeneration and economic transformation effort. The initiative increased the competitiveness of the region and boosted SMEs and startups by 48%. Five-hundred jobs were created directly and 1200 - indirectly.

**WITH WHAT** • The creation and development of the Centre of Knowledge depended on the county’s own resources and initiative. World Bank and ERDF funds were used for nine brownfield investments and for different capacity building actions in the Centre of Knowledge during the decade of transformation. The initiative was coordinated by the Public institution REDEA. Separate project teams were formed for each project under the initiative. Total costs were €100 M from 2012 until 2022. Co-financing was contracted for each brownfield investment, project by project, according to the sector and the goal of each investment.

**LESSONS LEARNT** • It comes the right time for every project. Sometimes one thinks it is the right time for a project and is then disappointed when no financial support can be ensured. However, with time, one then realizes that the project can be adapted and made better with and for the stakeholders and that the initial failure was just a step towards a better solution. The learning outcomes from this initiative include the following key takeaway points:

1. Set course based on proper strategic thinking.
2. Do not give up, even when the project seems to be abandoned or has no secured grant.
3. Seek other solutions and adapt the project scope.
4. Find consensus between visionaries and sceptics.
5. Assure ongoing open dialogue with stakeholders.
6. Make sure there is continuous political support.
From the EDP to the “Innovation talks” format

WHAT • To update the Regional S3, in 2021, alongside open consultations, four thematic forums on key EU-level issues were organized to gather stakeholder inputs and steer local research and innovation priorities. In a “learning by doing it” process, the “Innovation talks” model was gradually improved to transform the entrepreneurial discovery process (EDP) into the open discovery process (ODP). The direct participation of numerous different regional quadruple helix actors is key in “Innovation talks”. They share their experiences about how technologies are used in specialisation domains. These events serve to identify future project lines, development potential, funding sources, and new collaborative opportunities. During the initial phases, “Innovation talks” were developed by involving “clusters” of local subjects, identified by expertise areas among applications received to identify local stakeholders willing to actively participate and strengthen S3 Strategy. In the future, the regional Administration aims to involve further subjects trained on the S3 topics through a specific action foreseen in the ERDF Regional Program 2021-2027.

The S3 ODP continues to be pushed forward and kept alive at the same time, with specific Thematic Working Groups being naturally formed and proposals being gathered through surveys and debates. The first of several planned gatherings took place in June 2023 to launch “Innovative” (the S3 communication plan) with a technical session on “Bioeconomy”. More than 100 members of the regional quadruple helix community attended the event, structured in three sessions:
• Presentations by regional and national representatives to define the subject through an examination of the Italian and regional frameworks, the importance for collaboration and alignment between multilevel policies, laws, and entities.
• A peer learning session based on seven best practices from different sectors which illustrated transversal ways of applying technologies related to bioeconomy in industrial contexts and applied research.
• An informal networking moment to share opinions and co-create new initiatives.

This initiative will be repeated on different topics related to S3 at least 3 per year.

WITH WHAT • In 2023 the ODP event “Dialoghi per l’Innovazione” was implemented with regional funds, but in 2024 ERDF funds will be used. Human and technical resources are provided by the Research, Innovation and Energy Department (Veneto Region) and by Veneto Innovazione SpA.

LESSONS LEARNT
• Challenges-oriented development trajectories demand a high involvement of all relevant stakeholders (quadruple helix).
• The exchange among actors can lead to new project ideas and innovation networks.
• These type of meetings are necessary to be update on the evolution of the regional system in terms of research, innovation and competitiveness.
Transition Labs for open, inclusive and responsible place-based innovation processes

WHAT • The Transition Lab methodology was implemented in the energy transition context in Ostrobothnia. It encompasses four main phases, during which regional stakeholders: 1) Analyse and reflect on the current status related to e.g. societal challenges, the scientific-technological capacities and the regional political instruments (mapping) 2) Co-create common visions based on the discovered potentials and priorities (visioning) 3) Generate transition pathways and identify innovation needs, launching a call for immediate bottom-up solutions related to these (pathways and piloting), 4) Anchor the process on an organizational and policy level (sustainability and exploitation).

WHAT FOR • The ultimate goal of the Transition Lab is to enhance demand-oriented innovations and create more open R&I ecosystems. The Transition Lab process enabled Ostrobothnia to take a broader conception of innovation beyond energy technologies. The Transition Lab also served as a method for awareness raising and creating a shared language. By discovering the needs for actions from the perspective of energy-users and communities, it enabled to put a focus on changes of both consumption and production patterns. Finally, the process created new connections between regional actors.

WITH WHAT • The process was implemented within the H2020 project RIPEET through several co-creation workshops, with staff members from three regional organizations (triple helix). It is favourable, if the team represents different fields of expertise: process methodology, business and energy technology-related knowledge and policy. Given the aim of creating more open and inclusive R&I ecosystems, the team should take an intermediary role and have the skills to communicate with different stakeholder groups in their “language”.

LESSONS LEARNT • Vision-building in the context of transformative system level innovation requires unlearning. The energy context is highly regulated and slowly changing. Thus, the vision-building exercise cannot be locked in by current practices. Stakeholders need to be willing to believe in new scenarios and not fall into a conflict trap. In terms of governance, it is crucial to have resources, tools and capacities to move onwards from the visioning phase. Combining visioning work with concrete pilot actions is a key to establish ownership. The Transition Lab process is key for producing new evidence and discovering potential bottlenecks and challenges at the regional level.

Innovation for place-based transformations / Collection of practices / B33
Transition roadmaps: industrialised and sustainable construction in Navarra

WHAT • A strategic agenda supports Navarre’s construction sector transformation, in need of changes in the whole value chain. Analysis and change management in this sector is made of three phases:
1. Characterization: mapping of key agents in the regional value chain and detecting company strategic challenges.
2. Future vision: benchmarking four advanced ecosystems and analysing demand to monitor possible local evolution.
3. Action plan: identifying priorities in workgroups, defining 28 activities in a mid-term agenda (18 priorities), and the initiative governance and funding.

WHAT FOR • The construction sector is dealing with strong economic and environmental challenges:
• Responsible for 40% of energy consumption and 36% of CO₂ emissions.
• Strong reconversion after the real estate bubble and the great recession 2008-2012.
• High labor risks, aging and lack of attractiveness for young & women talent.
• Historical need to increase productivity and innovation for its viability.

This process took nine months and several meetings of the steering team made by representatives of the cluster and regional agencies (for innovation and housing policies). Along the process, the Regional government has changed its view around this sector and adapted its policies previously reserved to manufacturing sectors, such as cluster policy, R&D calls, and public procurement for social housing, demanding new construction features - wood and industrialised elements.

LESSONS LEARNT • This process took nine months and several meetings of the steering team made by representatives of the cluster and regional agencies (for innovation and housing policies). A regional transformation agenda is the sum of each stakeholders’ agenda, aligned to a shared vision. Therefore, it is key the real involvement of local stakeholders alongside institutional agents during the process. They should contribute to all three phases and take ownership of the definition and deployment of the agenda, so that they start changes both at home and at a regional level. This involvement is the result of the leadership of the relevant actors (publicly committed to change) and the perception of the urgency of change by private actors, together with well-focused support from the administration.

ACTIONBOOK ACTIVITY
Continuously engaging with stakeholders
Developing transition pathways and roadmaps
Developing a strategy
Developing the policy and action mix

INTENSITY OF TRANSFORMATION

PARTNERS
leading • Government of Navarra through Sodena – Regional Development Agency of Navarra. Luis Goñi Navarro (lgoni@sodena.com)
with • iCONS – Industrialised Construction
Urban innovation transformation: cases from theory to practice

**WHAT**  
The City of Espoo highlights some of its most transformative practical urban processes, which show how societal challenges are tackled through practical S3 projects.

**Kiviruukki**  
The current small-scale industry and warehouse area will be turned into a new circular economy hub. It aims to be an ecosystem where innovations, excellence, international networks, test environments, services and collaboration meet. A Cleantech Garden campus and a business park will be built in the area. Kiviruukki is one of the City of Espoo’s regional spearhead projects in sustainable development. A major factor behind the development plans was the VTT’s research center already operating at the site.

**Kera**  
The district is a pioneer in sustainable urban development, where solutions supporting a carbon-neutral circular economy are tested and developed. The city of Espoo has been developing the area through different sustainable urban planning projects over the years, partnering with notable businesses and institutions, e.g., Nokia and Aalto University. The development of the area is based on co-creation with essential operators. Espoo has acted as the convener and facilitator for these operators.

**Otaniemi**  
Otaniemi is a University Campus area with Aalto University, VTT, and other RDI-focused working places including big companies, SMEs and start-ups. The Otaniemi innovation ecosystem has a shared goal of a smart and sustainable future.

**WHAT FOR**  
Showcasing the practical elements of reaching sustainable development goals through urban transformation.

**WITH WHAT**  
Espoo engaged its own urban development resources, requiring cooperation with and investments by all the landowners and operators in the area. One of the most prominent ways for co-creating is Kera’s development commitment, which guides developers to implement sustainable development goals in the long-term. The goals have been defined in extensive cooperation with local operators and stakeholders, and it has been signed by the City of Espoo and the area’s landowners.

Espoo’s ambitious goal – climate-neutrality already by 2030 - cannot be reached without close co-operation with various stakeholders and ecosystems.

**LESSONS LEARNT**  
Urban transformation based on signed commitments will prioritise long-term sustainability. Involving local actors and stakeholders early in the planning process helps foster a sense of ownership: commitments and the implementation process guide developers towards sustainability goals.

**TERRITORY**  
Espoo, Finland

**ACTIONBOOK ACTIVITY**  
Setting up a network governance  
Mobilising resources  
Deploying a strategy  
Coordinating the policy and action mix

**PARTNERS**  
leading  
City of Espoo, Finland

with  
VTT Technical Research Centre, Aalto University, Omnia Joint Authority of education, Laurea, Metropolia, ITS Finland, Kone, HEVi, CLC, SOK, L&T, Nokia, Ramboll, Sitowise, Helsinki-Uusimaa Regional Council and many others.
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