



Policy challenges in exploiting research and innovation infrastructure

A Policy Brief from the Policy Learning Platform on Research and innovation

February 2019



**Interreg
Europe**



European Union | European Regional Development Fund



Summary

The European research and innovation infrastructure ecosystem is diverse in scale and scope, comprising numerous facilities and stakeholders operating at the leading edge of scientific discoveries as well as providing hands-on support to local or regional stakeholder communities, notably SMEs. The policy challenges linked to exploiting this infrastructure are high on the agenda of national and regional policy makers alike; at the EU level a number of instruments focus on co-investment and promotion e.g. openness and access, whilst regional policy makers are often concerned with the infrastructure's role in supporting smart specialisation, growth and interregional cooperation. In the Interreg Europe community there are a number of projects tackling research and innovation infrastructure from different perspectives and their experience can serve as inspiration to regions across Europe. The Policy Learning Platform offers a range of services to promote inter-project and interregional cooperation and capitalisation services to reinforce the different approaches and identifying synergies and good practices to fully exploit both existing research and innovation infrastructure and future investments.

Introduction

Whether funded and operating on regional, national or EU level, research and innovation infrastructure has a key role in advancing, exploiting and disseminating knowledge and technology. These facilities, resources and services include: major scientific research equipment, resources such as collections, archives or scientific data, e-infrastructures such as data and computing systems, communication networks, as well as pilot and demonstration sites, living labs, and more. There are important distinctions in terms of organisation; the infrastructure can be single-sited (a single resource at a single location), distributed (a network of distributed resources), or virtual (the service is provided electronically).¹

Used by the scientific community, industry, and entrepreneurs alike, research and innovation infrastructure is equally important in helping to find solutions for global challenges as it is to driving innovation in SMEs through technology transfer, thus contributing to both societal development and economic growth. To maximise the output and impact of the infrastructure, coordination and cooperation among different facilities is crucial. Coordination to avoid duplication of efforts or sub-optimisation, and cooperation to efficiently pool efforts and resources when addressing scientific challenges that require a cross-sectoral or large-scale approach.

In October 2017, the European commission identified four challenges to regional innovation based on smart specialisation.^{2 3} Research and innovation infrastructure is instrumental for addressing two of them: increasing cooperation in investment across regions, and leveraging research and innovation in less developed and industrial transition regions.

The Commission points out both the [Vanguard initiative](#) and [the thematic Smart Specialisation platforms](#) as successful initiatives for building sustainable linkages between regional eco-systems. In both cases, pilots, large-scale demonstrators and shared research infrastructure

¹ European Commission <https://ec.europa.eu/research/infrastructures/index.cfm?pg=about>

² European Commission (2017) Available at: http://europa.eu/rapid/press-release_MEMO-17-1994_en.htm

³ European Commission COM(2017) 376 final

Available at: https://ec.europa.eu/regional_policy/sources/docoffic/2014/com_2017_376_2_en.pdf



such as demonstrator or pilot facilities, data centres or Fab-labs are important components of the collaborative effort. Many Interreg Europe projects are also closely aligned with these objectives and are developing innovative policy instruments to support regional development.

Furthermore, the Commission highlights that less developed regions face major obstacles linked to fragmentation and sustainability of research and innovation infrastructures, whilst regions undergoing industrial transition may lack sufficient commercial research structures and firms that could form the basis for broad industrial modernisation. One example of how to address this is the development of a pan-European network of Digital Innovation Hubs. These and other research and innovation infrastructures will help SMEs manage their digital transformation and help regions confronted with industrial transition challenges.

Why this policy brief?

The focus of this Interreg Europe policy brief is to highlight some of the different policy approaches that serve to strengthen the various roles of research and innovation infrastructure, improve the accessibility and interaction with SMEs and other target groups, and provide funding for establishing and operating infrastructure.

As already mentioned, one important function of research and innovation infrastructure is to drive knowledge and technology transfer in the innovation eco-system; facilitating the uptake of innovative ideas flowing from research institutes and academia, by SMEs and larger companies. Together, scientific and industrial partners can develop solutions to shared problems. Industry uses research infrastructure for both basic and applied research, as well as for testing innovative technologies and products. On a larger scale, this kind of infrastructure is an important resource to catalyse industrial transition in sectors or among companies where the individual organisations lack sufficient skills, knowledge or information.

The issue of accessibility, not least from the perspective of SMEs who may have the most to gain from close interaction with these eco-system institutions is also of importance for policy makers. For reasons of resources and efficiency there are incentives for sharing access to certain infrastructures across borders; such internationalisation serves individual user groups whilst also enriching the research and innovation infrastructure by facilitating the inflow of both knowledge and financial resources. Allowing certain funding instruments to be used for activities outside regional or national borders is one example of policy measures supporting improved accessibility and reducing regional disparities.

For regional and national policymakers looking to finance infrastructure within their smart specialisation strategy frameworks, the alignment with thematic priorities becomes crucial. It is a matter of ensuring the infrastructures' relevance to the regional innovation eco-system, especially business needs and to involve them in development and implementation of the smart specialisation strategies.

European policy framework

European policies concerning research and innovation infrastructure address different aspects, including strategic focus for European infrastructure, fostering pan-European cooperation, providing funding solutions, access for external user groups, legal frameworks, issues related to 'openness', and more. A specific strategic priority adopted by the European Commission



concerns the 'Three Os', i.e. open science, open innovation and open to the world. EU funded research infrastructure is expected to contribute to for example:

- Maximise research results through the open access to scientific publications and to research data;
- Support transnational access to research infrastructures;
- Foster innovation potential of research infrastructures;
- Facilitate access of SMEs to research infrastructures while respecting confidentiality;
- Promote the international outreach of research infrastructures.

Under [Horizon 2020](#), funding is provided to support excellent science in Europe. The support is aimed at the development of new world-class research infrastructures; at optimising the use of national facilities by integrating them into networks and providing access to all European researchers; and at further deployment and development of ICT based e-infrastructures which enable access to distant resources, remote collaboration, and massive data processing in all scientific fields. Some examples of European research and innovation projects with particular focus on research infrastructures include [RI-PATHS](#), [ACCELERATE](#) and [InRoad](#). In the proposal for the next Framework Programme, [Horizon Europe](#), the support to research infrastructures has an indicative budget of EUR 2.4 billion for the period 2021-2027, under Pillar I 'Open Science'.

Certain initiatives have also been designed with the aim of promoting R&I excellence and maximising the specific value added of S3 investments such as capacity building to support R&I activities and the exploitation of research results for raising the overall social/economic impact. This is the case of the European Commission's project [Stairway to Excellence](#) which is focussed on the provision of assistance to EU Member States and Regions in this domain.

The funding priorities of Horizon 2020 are also influenced by the [European Strategy Forum on Research Infrastructures](#) (ESFRI). The forum was set up in 2002 with a mandate from the EU Council to 'support a coherent and strategy-led approach to policy-making on research infrastructures in Europe, and to facilitate multilateral initiatives leading to the better use and development of research infrastructures, at EU and international level.'⁴ In particular the ESFRI supports research infrastructure policy-making by developing periodically updated roadmaps identifying vital new research infrastructure of pan-European relevance for the next 10-20 years. The latest update of the roadmap was released in 2018, comprising a total number of 55 research infrastructures either in a preparation phase or already operational.⁵

Specifically addressing the accessibility of these and other infrastructures, the European Commission's Directorate General for Research and Innovation has published the [European Charter for Access to Research Infrastructures](#), a set of non-regulatory principles and guidelines for access and related services linked to research infrastructures. The Charter targets the research infrastructures themselves, as well as the institutions and funding organisations responsible for or supporting research infrastructures. It is intended to be used as a reference for updating existing or defining new access policies. Also linked to access, but from an e-infrastructure perspective, the [European Open Science Cloud](#) was launched in 2018 by the European Commission to provide researchers and science and technology professionals with open access to scientific publications and research data. This initiative is

⁴ <https://www.esfri.eu/forum>

⁵ See for example this Interreg Europe Policy Learning Platform [news item](#).



supported by physical infrastructure comprising high-bandwidth networks and supercomputing capacities.

On a regional policy level, the [Interreg Europe programme](#) and the Policy Learning Platform provides support to regional authorities looking to improve the relevant policy instruments by capitalising from each other's experiences and good practices. Within the programme's Research and innovation topic the specific objective of 'strengthening research and innovation infrastructure and capacities' covers policies concerning for example the operation, accessibility, and interregional cooperation of research and innovation infrastructures.

Lastly it is worth noting the extensive work undertaken by the JRC S3 Platform team, much of it being closely related to how innovation and research actions are aligned in support of RIS3 and also the role played by University stakeholders. An extensive bibliography can be accessed via the Platform⁶. For example a report, 'Smart Specialisation at work: Analysis of the calls launched under ERDF Operational Programmes'⁷ assesses how and to what extent resources under Thematic Objective 1 (TO1) of national and regional Operational Programmes for the European Regional Development Fund (ERDF) were allocated to operations falling within the innovation and research priorities set in the respective national and regional smart specialisation strategies (S3) during the first phase of the 2014-2020 programming period.

Experiences from Interreg Europe projects

This section of the policy brief focuses on five interesting TO1 Interreg Europe project examples:

- INNO INFRA SHARE
- TraCS3
- SmartPilots
- BRIDGES
- S34Growth

These projects address different aspects of research and innovation infrastructure, including how to facilitate access to the knowledge and facilities, the role of infrastructure in smart specialisation strategies, and how to promote interregional cooperation and sharing of resources. Additional projects are listed in Annexe 1.

The [INNO INFRA SHARE](#) project is focused on how to improve accessibility to research and innovation infrastructure, in order for SMEs in particular to exploit the knowledge, technology resources and opportunities for collaboration to help them grow and build competitiveness. The project addresses how policy instruments may facilitate the sharing of infrastructure, also opening up for international users. By understanding what the regional infrastructure has to offer, identifying who could benefit from these specialised assets, and setting a framework for how to structure supply and demand in a business or collaborative context, its value can be made accessible to a broader target group.

Collaboration between existing innovation infrastructures, and particularly how to involve them in innovation value chains and interregional cooperation, are among the challenges addressed

⁶ <http://s3platform.jrc.ec.europa.eu/knowledge-repository>

⁷ <http://s3platform.jrc.ec.europa.eu/-/smart-specialisation-at-work-analysis-of-the-calls-launched-under-erdf-operational-programmes?inheritRedirect=true>



by the [TraCS3](#) project partners. Recognising the important role of actors like incubators, technology information centres, and research centres in regional innovation eco-systems – as well as the added value that comes from international links – the project has explored how to improve programmes and measures for interregional cooperation and establish new financial instruments for the use of ERDF outside the regions.

The [SmartPilots](#) project highlights the research and innovation infrastructure represented by shared pilot facilities, allowing innovators to translate scientific findings into industrial practice without having to invest in their own pilot installations. Focusing specifically on bio-economy test sites, the project addresses direct support mechanisms (e.g. funding), indirect support mechanisms (e.g. promoting facilities to innovators) and interregional cooperation (e.g. co-investment in one facility by several regions).

Many regional authorities struggle with the implementation of their smart specialisation strategies, facing challenges related to turning research results into concrete value for the regions and their SMEs, or how to successfully transform the regional economy. One of the objectives of the [BRIDGES](#) project is to highlight how research and innovation infrastructure can contribute to overcome these challenges. Focusing specifically on a bio-economy context, the project aims to enhance the capacity of industry-led Centres of Competence to implement smart specialisation strategies, for example through better commercial exploitation of regional research excellence.

The project partners of [S34Growth](#) are also members of the Vanguard initiative, focusing on industry-led interregional cooperation with the aim of capturing the value of specialisation of different regions, promoting shared European strategic goals. Research and innovation infrastructure is key to improving innovation performance and competitiveness by developing industrial value chains. A majority of the policy instruments addressed by the project partners are concerned with the possibilities to make use of Article 70 of the [CPR 1303/2013](#)⁸, in order to use ERDF to fund operations outside the programme area.

Challenges concerning research and innovation infrastructure

The facilities and resources that make up the regional, national and European research and innovation infrastructure are essential components of the innovation eco-system. Tasked with generating scientific excellency, as well as driving the innovation process through testing, demonstration and transfer of research results to industry, while also functioning as important nodes for international cooperation, the infrastructure faces multiple challenges and stakeholder interests to balance. The list of challenges discussed in this policy brief is not exhaustive, but they each represent a significant policy challenge associated with research and innovation infrastructures. This was also indicated in a poll taken by the 30+ participants of a recent Interreg Europe Policy Learning Platform [online webinar](#) on ‘Improving access to Europe’s research and innovation infrastructure’ held on the 6th February, 2019. ‘Accessibility for SMEs’ in particular, followed by ‘coordination and funding of interregional cooperation’ were confirmed as major and challenging issues.

⁸ Regulation (EU) No 1303/2013 of the European Parliament and of the Council of 17 December 2013 laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund.



Accessibility for users

The impact of research and innovation infrastructure on societal and economic development increases with successful partnerships, granting SMEs and other non-science performing actors' access to knowledge and technology resources. However, this can be challenging for both 'sides', not least the need to bridge potential differences in culture between the scientific and industrial communities. It may also involve incentivising SMEs through financial support and finding ways to cooperate that lower the barriers for access or providing them with strategic advice to enable them to enhance technology uptake and implement scale up/growth initiatives.

Issues pertaining to 'openness', e.g. external access to certain scientific data or confidentiality in open innovation projects, are an additional set of hurdles that may have to be dealt with as part of fostering new partnerships. During the online webinar, the ESFRI speaker highlighted the need for designing research data policies, underlining the importance of proper data citation (traceability and accountability) and the fact that 'open' does not necessarily mean free, especially if the data is exploited for commercial use. Measures to strengthen access and collaboration around research data include functions like Industrial Liaison Offices that act as brokers between research infrastructure and industry, and Industrial Data Platforms to provide a framework for data governance.

INNO INFRA SHARE in particular, addresses the accessibility challenge from an SME perspective, highlighting the enabling effects good access to research and innovation infrastructure can have on this group. The idea of a market-driven nature of collaborative partnerships, where the needs of SMEs and the resources of the infrastructure combine for opportunities, is central to the project. Practices highlighted by the partners address topics in line with this approach, including business models for SME access, delivery mechanisms and marketing activities. Indeed, the funding mechanisms to ensure SMEs profite from such resources are fundamental to the issue of accessibility. During the online webinar, the project partner representing the Vidzeme Planning region in Latvia, outlined the transfer and implementation of the 'OpenLab Skåne'⁹ good practice to mitigate the lack of motivation and knowledge of sharing (among infrastructure providers), reliance on EU funds as a main driver (among users), and unclear policy focus on infrastructure sharing.

How can the Policy Learning Platform support?

The Interreg Europe Policy Learning Platform can help project partners understand the issues of accessibility by facilitating the exchange of experience from different points of view; representing both 'supply' and 'demand' and presenting success stories, via good practices. Looking at both the research and innovation and the SME competitiveness thematic objectives of the platform, there are projects and good practices more oriented towards the research and innovation infrastructure on the one hand, and those with a more pronounced SME perspective on the other. In addition to the good practice database, the Policy Learning Platform can provide a forum for direct discussions between partners of different projects – either in thematic workshops, peer learning or in online discussions.

⁹ [OpenLab Skåne](#) in the Skåne region, Sweden



Funding and Coordination of interregional cooperation

A challenge related to accessibility, but on a broader scale, concerns the organisation of international cooperation linked to research and innovation infrastructure resources. With highly specialised and advanced facilities, perhaps even of a ‘flagship’ character, it makes sense not to duplicate but instead share across regional and international borders and facilitate access to all users wherever they may be based. This may involve regions pooling their infrastructure resources to solve common challenges, facilities providing services to SMEs coming from abroad, or EU-level cross-disciplinary networks working on global challenges.

Mapping of research and innovation infrastructure is essential to avoid overlapping efforts and to identify complementarities; the Interreg Europe projects mentioned have activities for this purpose. In addition, there are other EU-funded initiatives focussing on mapping, like the MERIL project or some of the work done by ESFRI.

In TraCS3, the regional benefits of interregional cooperation around research and innovation infrastructure is highlighted. Especially, the focus on how to finance such cooperation, e.g. by channelling ERDF funding to activities outside the programme area, should generate valuable input to regional authorities elsewhere looking for inspiration on how to catalyse this cooperation. For SmartPilots, the focus on supporting shared pilot facilities is in itself a response to the challenge of international cooperation. Among the project’s good practices, some address different aspects of funding; in particular a voucher¹⁰ and a grant scheme¹¹ supporting transnational cooperation and SME internationalisation. Indeed, within H2020 projects, such as the INNOSUP 01 linked to the EU cluster community, the concept of cascade funding via the delivery of innovation vouchers to SMEs is greatly facilitating both SME/innovation actor’s cooperation and international cooperation and access to research infrastructures.

Some examples of policy changes implemented as a result of Interreg Europe projects also illustrate how positive contributions can be made to enhancing research and innovation infrastructure exploitation. These include the Smart Pilots project in which partners are pursuing a project on investment in a pilot infrastructure and also an initiative in support of technology transfer between companies, specially SMEs. Meanwhile, in the S34Growth project, partners are developing an interregional voucher scheme via the utilisation of article 70.

¹⁰ [Voucher for SME to access pilot & demo infrastructures](#) in East Flanders, Belgium

¹¹ [Innovation \(R&D\) company grant scheme of Flanders Innovation and Enterprise](#) in the Brussels region, Belgium



How can the Policy Learning Platform support?

The Interreg Europe Policy Learning Platform can facilitate and promote networking between project partners and the partnerships of the Smart Specialisation Platform for Industrial Modernisation (S3P-Industry). This platform supports EU regions' interregional cooperation to complement each other's competences, share infrastructure, and develop joint investment projects. With regions active in both the Interreg Europe and S3P-Industry communities, there are opportunities to combine the policy and funding components for interregional cooperation on research and innovation infrastructure. Regional Cluster organisations who are stakeholders in many Interreg Europe projects are actively engaged in supporting SMEs access innovation and research infrastructures.

Alignment with S3 strategies

Smart specialisation strategies are formulated around regional and national assets and specific opportunities for development and growth. Existing research and innovation infrastructure can play an important part in supporting regional development and ideally new investments should be aligned with smart specialisation priorities, both to generate relevant output and to be eligible for ERDF funding or national investments. In addition, with much of interregional cooperation being based on common smart specialisation challenges, better alignment also allows for greater involvement of the infrastructure stakeholders in this cooperation. High-profile research and innovation facilities can also be part of the bottom-up process of setting smart specialisation priorities, being the assets on which the specialisation relies. The work of the JRC S3 Platform team has also highlighted the role of university level governance¹² in facilitating these processes. Such resources can also be motors for initiating cooperation in H2020 projects.

This need for alignment is addressed by the Interreg Europe projects. Key Enabling Technologies provide context to the project partners' work in both INNO INFRA SHARE and SmartPilots, Similarly, in TraCS3 the aim is to foster support for innovation infrastructure and interregional collaboration specifically in the participating regions' S3 key priority areas. In BRIDGES the project partners go a step further, looking more closely at the role of research and innovation infrastructure in RIS3 implementation, as exemplified in one of the projects good practices on RIS3 coordination¹³.

The partners of the Vanguard Initiative and S34Growth fully embrace the idea of interregional cooperation based on regional smart specialisation, pooling the excellence of individual regions to build synergies and complementarities and helping SMEs access knowledge and innovation support wherever it may be found. A good practice example that underlines this approach involves the Portuguese Norte region and the Spanish region of Galicia who have developed the first cross-border smart specialisation strategy in the EU¹⁴.

¹² <http://s3platform.jrc.ec.europa.eu/-/an-analytical-framework-to-assess-the-governance-of-universities-and-their-involvement-in-smart-specialisation-strategies?inheritRedirect=true>

¹³ [Helsinki-Uusimaa Regional Council RIS3 coordination](#) in Helsinki-Uusimaa region, Finland

¹⁴ [Cross-Border Smart Specialisation Strategy of Galicia – Northern Portugal \(RIS3T\)](#) in Norte region, Portugal and Galicia, Spain



How can the Policy Learning Platform support?

The Interreg Europe Policy Learning Platform gathers project partners from regions across Europe who all work in a smart specialisation context. There is a rich collection of project experiences and valuable lessons learnt concerning all steps of S3 formulation and implementation, such as Beyond EDP; also including how to align different stakeholders with the strategic objectives. Through the expert support function, the Policy Learning Platform provides guidance to help find the most relevant knowledge resources in the community. Furthermore, the service of peer review exercises allows for detailed exchange on specific challenges, involving both regional authorities and stakeholders.

Assessing impacts on regional economy

Research and innovation infrastructure is often associated with large investments to cover costs for both the initial construction and the subsequent operational costs. For funding agencies and policy makers it is crucial to know whether this is money well spent, if there is a return on investment in societal and economic terms for the region. While the strive for scientific excellence is an important factor in the planning and funding new facilities, so are the expected impacts on regional economy, e.g. creation of research-based start-ups, strengthened innovation capacity in SMEs or attracting new industries to the region. Both qualitative and quantitative policy and programme evaluation and impact assessment approaches are needed; as often is the case, successful assessments largely depend on identifying the relevant indicators and collecting the right data – in order to permit benchmarking it must also be the same kind of indicators/data for different infrastructure installations.

Among the Interreg Europe projects highlighted in this policy brief, the issue of economic impact assessment is not directly addressed given that projects do not support direct investments. However, it is certainly part of the wider regional policy context and should be considered an integrated part in the process. For example, the set up new value chains with research and innovation infrastructure, in TraCS3 or S34Growth relies on understanding the impacts and benefits such actions will have. Also, for project partners in general, when evaluating one's own or others' good practices, long-term positive economic impact is an important evidence of success.

Looking at other initiatives, there is for example the previously cited Horizon2020 project RI-PATHS that aims to develop an impact assessment model for 'analysing the socio-economic impact of research infrastructures and their related financial investments'¹⁵. The model and its associated impact indicators will function as a tool for policy makers to understand impact from a quantitative and qualitative perspective.

¹⁵ RI-PATHS (2018) "Charting impact pathways of Research Infrastructures" Available at: https://ri-paths.eu/wp-content/uploads/2018/03/RI_ImpactPathways_article_pc_09032018.pdf



How can the Policy Learning Platform support?

The Interreg Europe Policy Learning Platform follows the development in other European initiatives more directly focused on impact assessment, e.g. within OECD or Horizon 2020, and can follow up on results of particular relevance to Interreg Europe projects, e.g. by publishing articles or inviting external speakers to workshops or webinars.

As projects progress into their second phase and partners implement their regional Action Plans, the impact of these can be monitored and communicated; also highlighting the indicators used and how to measure them. The Policy Learning Platform serve as a dissemination channel for these findings. Also, impact assessment could be foreseen as a component in a peer review exercise focused on research and innovation infrastructure.

Way forward

The instruments, data, knowledge and skills embedded in European research and infrastructure are crucial to regional innovation eco-systems, the competitiveness of regional economies as well as for the EU's global position in science and research. As showcased in this policy brief and discussed in the online webinar, regional policy makers are tasked with a number of challenges to exploit the research and innovation infrastructure to its full potential, whether it is for benefit of individual stakeholders or in a RIS3 context. Looking at regional framework conditions and good practices, a number of key points emerge:

- Consideration needs to be given to general issues concerning access to research and innovation infrastructure but equally to the issue regarding absorption capacity of SMEs. This is a crucial aspect of any policy tool kit that aims to enhance linkages to infrastructure in regions;
- A webinar survey amongst the Interreg Europe partners indicated that regions can improve the opportunities for SMEs to access infrastructure outside the regions, also internationally. Inspiration for vouchers and similar instruments has been identified among project good practices.
- Interregional cooperation is a key component of regional competitiveness measures in support of SMEs utilising research and innovation infrastructure resources to progress along the Technology Readiness Levels (TRL) and value chains and explore cross sectoral collaboration with the support of enabling technologies;
- New 'cascade funding' models and the increasing use of innovation vouchers are helping to facilitate SMEs access Europe's leading research and innovation infrastructures;
- RIS3 definition and implementation has contributed to better policy alignment between regional development priorities and the funding of new research and innovation infrastructure;
- Strategic investments in research and innovation infrastructure need to be considered in a European perspective and explore cooperation opportunities via S3 Thematic



Partnerships, H2020 and other mechanisms and be considered within European research and innovation roadmaps.

- The design of suitable indicators, both qualitative and quantitative, is an essential part of the regional policy tool kit in order to facilitate policy evaluation and impact assessment to ensure research and innovation infrastructures are fully exploited;
- Closer interregional cooperation regarding existing research and innovation infrastructures can lead towards co-investment thus further strengthening collaboration between regional ecosystems;
- The Strategic Forum for Important Projects of Common European Interest (IPCEI) has identified a series of key value chains of strategic importance to Europe and is seeking to encourage joint investments by public authorities and industries from several EU countries.

Finally, interregional good practice transfers and sharing implementation experiences can help regions both adapt and adopt policies that have worked elsewhere and thus accelerate their innovation performance.



Sources of further information

- [Vanguard initiative](#)
- [Thematic Smart Specialisation Platforms](#)
- [European Strategy Forum on Research Infrastructures \(ESFRI\)](#)
- ESFRI, [Roadmap 2018](#)
- ESFRI, [Scripta Volume III: Innovation-oriented cooperation of Research Infrastructures](#)
- European Commission, [European Charter for Access to Research Infrastructures](#)
- European Commission, [European Open Science Cloud](#)
- European Commission, [Regulation \(EU\) No 1303/2013](#)
- Interreg Europe Policy Learning Platform, Webinar: [Improving access to Europe's research and innovation infrastructure](#), 6 February 2019

Image credit: Photo by Aleksejs Bergmanis from [Pexels](#)



Annexe 1: Selection of further relevant TO1 Interreg Europe projects

Project	Focus
URBAN M	Ensuring thriving collaborative makerspaces such as Fab Labs, Open Innovation Centres, Living Labs and Cross-Sector Incubators.
BEYOND EDP	Examining ways in which regional RDI stakeholders can be engaged in defining S3 priorities and facilitating policy alignment between economic growth objectives and research and innovation infrastructures;
RESET	Creation, management and enhancement of the R&D and innovation infrastructures required to develop greener and more sustainable textile and clothing products and processes.
INNOTRANS	Transport innovation and its contribution to tackling major social challenges.
RECORD	Investment in innovation activities by SMEs in the railway sector.

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February 2019



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