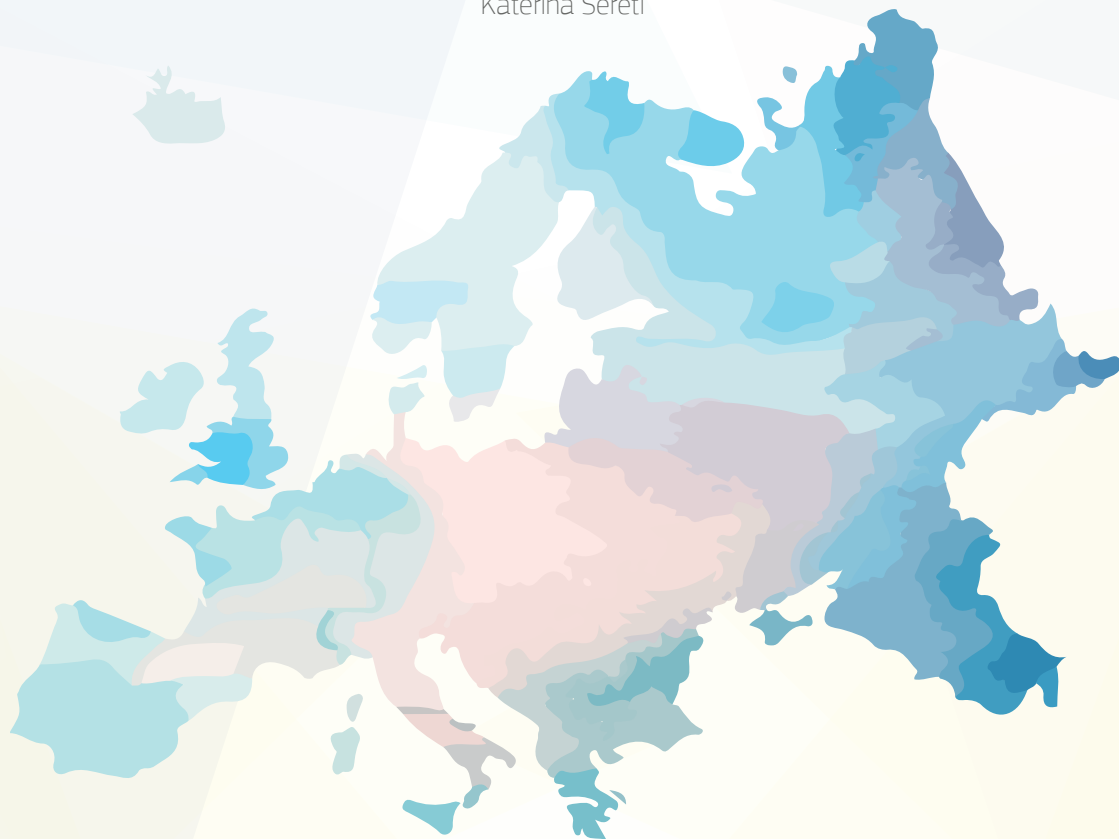


European Institute of Innovation and Technology (EIT) Knowledge and Innovation Communities (KICs): Collaboration in a RIS3 Context

Authors:

Nida Kamil Özbolat
Karel Haegeman
Katerina Sereti



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Contact information

Name: Karel Haegeman

Address: European Commission JRC, Calle Inca Garcilaso, 3, 41092, Seville/Spain

Email: karel-herman.haegeman@ec.europa.eu

Tel.: +34-95-448.87.25

Name: Katerina Sereti

Address: EIT, Infopark, Neumann Janos utca, 1/E, 1117, Budapest/Hungary

Email: katerina.sereti@eit.europa.eu

Tel.: +36-1-4819.389

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Authors

Nida Kamil Özbolat (European Commission, Joint Research Centre (JRC), Seville, Spain)

Karel Haegeman (European Commission, Joint Research Centre (JRC), Seville, Spain)

Katerina Sereti (European Institute of Innovation & Technology (EIT), Budapest, Hungary)

Abstract

Innovation in the European Union is called upon to increase competitiveness, to improve territorial cohesion, and to address societal challenges. Challenge-driven innovation is also high on the global agenda and calls for building sufficient critical mass by taking full advantage of synergies and complementarities between innovation initiatives, in particular between cohesion policy and excellence-based innovation.

This report investigates in particular the motivations, practices and opportunities for strengthening collaborations between the European Institute of Innovation and Technology Knowledge and Innovation Communities (EIT KICs) (focusing on excellence-based innovation) and the Managing Authorities of national and regional European Structural and Investment Funds (ESIF) (focusing on innovation in line with the cohesion policy), within the context of Research and Innovation Strategies for Smart Specialisation (RIS3).

Closer collaboration between the actors of RIS3 and of EIT KICs across Europe seems natural, as both aim at building Europe-wide value chains, encompass similar sets of stakeholders, and tackle similar societal challenges through innovation. However, collaboration does not seem to come naturally, given the limited practices to date.

Detailed analysis of both conceptual and practical similarities and differences between both approaches and the related communities identifies arguments, opportunities and bottlenecks for increased collaboration. Different modes of collaboration are considered, as well as proposals to scale up current collaboration practices and unlock the collaboration potential.

The report aims to make an important practical contribution to optimising the efficiency of research and innovation spending, to combining the objectives of increased competitiveness and cohesion, to spreading excellence across the EU and its territories, and to better addressing the big challenges our society is facing on the eve of the launch of the new Multi-Financial Framework. More concretely, more collaboration between European R&I actors will help to build wider coalitions to support the European Green Deal, as well as other ambitions for Europe over the next five years and beyond, by involving territories and actors across the entire EU, as well the necessary excellence to achieve the ambitious objectives.

Executive Summary

This report elaborates on the benefits and opportunities of collaboration between the European Institute of Innovation and Technology ([EIT](#)), its Knowledge and Innovation Communities (KICs) and the communities involved in developing and implementing Research and Innovation Strategies for Smart Specialisation (RIS3), particularly Managing Authorities (MAs) of European Structural and Investment Funds (ESIF). In this way, the report analyses for the first time the relation between RIS3 and the approach of the EIT. It presents existing collaboration examples as well as potential future collaboration options, building on the success factors observed in the joint activities deployed by JRC and the EIT's KICs. In addition, the report proposes options for strategic and operational actions that can bring tangible results in better coordinating the research and innovation activities undertaken by the EIT Community and the RIS3 implementation bodies. Finally, in line with the objectives of the Stairway to Excellence ([S2E](#)) project, the report aims to bring the objectives of excellence and cohesion closer together and to contribute to the debate on the complementary and efficient use of public capacities and resources. In doing so, it aims ultimately to contribute to an increased competitiveness and excellence-based innovation across the EU and to better addressing the societal challenges on the global agenda.

Some of the main findings of the report can be summarised as following.

- As the EIT KICs contribute to addressing major societal challenges and most EU Member States (MSs) and regions also take these challenges into consideration, exploring thematic relations between priorities of RIS3 and themes of EIT KICs is rationally possible for most of the EU regions. In this context, smart specialisation strategies (S3) can be used to connect different efforts and activities of regional, national and European initiatives.
- The EIT Community and RIS3 implementation bodies work with similar groups of stakeholders and have similar or complementary objectives: strengthening regional innovation ecosystems, maximising knowledge flows and contributing to the development of innovation-based economies. Close interaction between key complementary activities, both at design (strategy) and implementation (operational) level, could prove to be mutually beneficial for the EIT Community and for RIS3 actors.
- Both EIT's Knowledge Triangle Integration (KTI) approach and the Entrepreneurial Discovery Process (EDP) of RIS3 bring together different innovation actors aiming to design and implement strategies based on a bottom-up approach. Therefore, structured collaborative interactions between the initiatives and organisations involved under both models can help each of them to enhance the bottom-up approach and support each other in the implementation of methodological processes.
- There are some novel elements that can complement the activities under each model. On the one hand, the EIT Community can significantly support the implementation of RIS3 by reinforcing business involvement, strengthening the thematic and entrepreneurial dimension of skills development, and facilitating access to global value chains. In addition, the entrepreneurial education approach of EIT's innovation model can open new dimensions in the design of RIS3, by enhancing the educational dimension of the EDP with the EIT's knowledge and practices. On the other hand, the RIS3 implementation bodies and MAs can provide a wide range of opportunities to the EIT KICs in terms of enhancing the bottom-up approach, accessing pockets of excellence and untapped innovation potential in European regions, as well as strengthening interaction with public sector. Furthermore, national authorities in charge of the design and implementation of RIS3 can benefit from the projects of EIT KICs through providing ESIF support for scaling up or for complementary activities.
- Synergies are often focused on funding synergies, missing the non-funding related aspects of cooperation. While many prospects for funding synergies exist, there are

also significant opportunities to enable policy synergies and to take advantage of benefits stemming from strategic alignment and coordination.

- Similar to the EDP of smart specialisation, strengthening and connecting regional innovation ecosystems is at the core of the EIT's innovation model. While the EIT Regional Innovation Scheme (RIS) focuses on a targeted and tailored support to countries and regions relatively lagging in terms of innovation performance, opportunities for collaboration between the RIS3 stakeholders and EIT Community exist all along the EIT's network and activities covering all EU MSs.

Some good collaboration practices already exist, both at strategic level (e.g. through formal agreements between the EIT KICs and national/regional authorities), and at operational level, but are rather limited. Good opportunities exist both in upscaling and spreading current practices and in exploring new forms of collaboration. This report offers tailored options to scale-up the collaboration between the two initiatives, especially in view of the upcoming programming period (2021-2027).

Options for Managing Authorities interested to engage with EIT KICs

- ✓ Elaborate the RIS3 priorities and analyse their relations with the EIT KICs themes.
- ✓ Define the needs of your country or region, what support/assistance is required in different types of activities and whether the EIT Community provides this support. The Technology Readiness Level (TRL) can facilitate this clarification.
- ✓ Where complementary support is available, proactively reach out to the EIT Community through their regional offices - the Co-Location Centres - or the EIT Hubs.
- ✓ Elaborate the above in a regional outreach strategy to strategically position your region/country in the value chains and exploit opportunities provided by EIT KICs (and other European initiatives).

Options for the EIT Community interested to cooperate with MAs

- ✓ Explore and map territorial stakeholders, priorities and competencies that match with the EIT KICs' strategic agendas.
- ✓ Participate in the design of RIS3, particularly EDP, and collaborate with national/ regional authorities where there are opportunities for collaboration.
- ✓ Consider the establishment of Co-Location Centres in EIT RIS eligible countries as a way to further open-up the EIT KICs activities and network.
- ✓ Go beyond the scope of EIT RIS when supporting the lagging regions. Develop facilitating mechanisms for these regions to get involved in the core activities of EIT KICs.
- ✓ Elaborate the above in a strategic approach for reaching out to national/ regional MAs, particularly in the context of possible synergies with ESIF (including beyond RIS countries).

For Both

- ✓ Increase critical mass in collaboration through engaging several EIT KICs (cross-KIC activities) and wider sets of regions or countries, either through involving interregional partnerships or through grouping of countries and regions with common interest.
- ✓ Organise match-making events leading to joint projects. Seek for collaboration with other actors within the EIT Community and RIS3 stakeholder groups.
- ✓ Identify territorial and EU-wide research infrastructures, as well as incubation centres and accelerators run by Co-Location-Centres of EIT KICs, and allow the joint use of this capacity.

Finally, this report also highlights the new synergy opportunities provided by the Cohesion Policy for the post-2020 period in terms of the proposed simplification and flexibility of programmes and management of funding. These simplifications consists of the lighter control procedures for entrepreneurs, single rulebook for seven EU Structural Funds and flexibility in order to cope with unforeseen issues that also allows limited transfers of resources within EU funding programmes¹. In view of the forthcoming Multi-Financial Framework 2021-2027, starting or upscaling collaboration now helps to build trust and to better prepare stakeholders for harvesting upcoming opportunities. These opportunities are not limited by collaboration between the RIS3 implementation bodies and EIT KICs and may also extend to strengthened partnerships with other EU initiatives and between regions.

¹ For more information, see https://ec.europa.eu/commission/presscorner/detail/en/IP_18_3885

1 Introduction

Smart Specialisation is a process aimed at transforming the economic and industrial ecosystem of a territory by creating new capacities and capabilities. The Joint Research Centre ([JRC](#)) (the European Commission's science and knowledge service) and the Directorate-General for Regional and Urban Policy ([DG REGIO](#)) provide targeted support to European regions and Member States (MSs) in the implementation of their smart specialisation strategies. More specifically, while DG REGIO works with MSs and regions to assess needs, finance investments and evaluate the results, the JRC (particularly Unit B.3) provides practical and analytical support in implementing Research and Innovation Strategies for Smart Specialisation (RIS3) to European countries and regions. The Stairway to Excellence ([S2E](#)) project supports EU Member States in closing the innovation gap and promoting excellence with an emphasis on enabling synergies between European Structural and Investment Funds (ESIF), Horizon 2020 and other funding instruments, as well as stimulating effective implementation of Smart Specialisation Strategies (S3) and helping MSs and regions to exploit complementarities with EU initiatives and platforms. The project is an initiative from the European Parliament, implemented by the Joint Research Centre in collaboration with DG REGIO.

In the context of the S2E project, this report focuses on the identification of the potential and opportunities for enhanced collaboration between the European Institute of Innovation and Technology ([EIT](#)) [and its *Knowledge and Innovation Communities (KICs)*] and the actors involved in the design and implementation of Research and Innovation Strategies for Smart Specialisation (RIS3) [*particularly Managing Authorities (MAs)*² of ESIF and also RIS3 design and implementation bodies³, beneficiary organisations of ESIF including local business enterprises, universities, research centres, NGOs, innovators and individuals] as these collaborations can help the Member States (MSs) and their regions to achieve excellence-based innovation. Linkages are identified between the RIS3 and the EIT's innovation model, as well as possible collaboration areas and related mechanisms provided by various activities in different areas, including education, entrepreneurship, research and innovation (R&I).

1.1 Rationale

European innovation ecosystems are significantly fragmented and dialogue between different stakeholders is far from the ideal state for efficient innovation ecosystems (WEF, 2014). The EIT Community and RIS3 implementation bodies aim to deal with the same fragmentation issues from the EU perspective. At first sight, closer collaboration between the EIT Community and RIS3 implementation bodies seems a natural match. Indeed, in both initiatives, the involvement of the knowledge triangle actors is at the core of the approach, the combination of increasing competitiveness and addressing societal challenges are parts of both their core objectives, and the creation of Europe-wide value chains is an essential mechanism in both initiatives to reach these objectives. Other arguments for more collaboration include the potential of moving ESIF spending for RIS3 closer to business needs, and of bringing the EIT KICs closer to the public (innovation) policies of Member States and regions.

² Under the auspices of the EU's cohesion policy, a managing authority is responsible for the efficient management and implementation of an operational programme (OP) of ESIF. A managing authority may be a national ministry, a regional authority, a local council, or another public or private body that has been nominated and approved by a Member State. Managing authorities are only authorities that can amend the OP in line with the principles of financial management.

³ Implementation bodies are assigned to follow and conduct the OP implementation in line with the RIS3. In most cases they are not funding dispensers and not responsible for financial management; however, they play key roles in ensuring the vision and objectives of smart specialisation, as well as the stakeholder involvement. Based on the structures of MSs, they can have active role in monitoring, evaluation and coordination of different actions.

Obviously, also many differences exist, the most essential being the focus by EIT and its KICs on supporting and increasing excellence, versus building cohesion for ESIF, the main resource behind RIS3 implementation. Still, the launch of an outreach scheme by EIT in 2014, the EIT Regional Innovation Scheme (EIT RIS), brought closer the innovation actors from both sides, by offering services that support the objectives of the cohesion policy. The fact remains that the differences that can be observed in terms of their foci, seem insufficient to explain fully the perceived lack of collaboration between seemingly natural partners, given their similarities. Also, issues of awareness and trust are pertinent. At present, regional stakeholders from the EIT KICs have had little involvement in RIS3 design and implementation in the same territory, and the RIS3 stakeholders tend to have weak connections with the regional nodes of EIT KICs (Co-Location Centres, EIT Hubs⁴ and partner organisations). Lack of information on both sides regarding collaboration opportunities exists along with misconceptions on what can be achieved. There is clearly room to enhance the connections between both groups of stakeholders in order to gradually build up good practices and increase mutual trust, as well as to better connect what can currently be considered as two largely separated groups of R&I activities.

For the purpose of this report, collaboration is understood to not only focus on creating funding synergies and critical funding mass. In particular, collaboration in R&I activities between actors related to EIT and RIS3 can provide a wide set of benefits, including:

- Increased awareness of financial, technical and professional opportunities for each participant;
- Better motivation and mutual trust owing to joint activities/problem solving;
- Easier access to new partners and networks across Europe;
- Internationalisation opportunities;
- Synchronisation and complementarity of separated activities;
- Common agreement to solve critical issues;
- Establishing shorter pathways from student to entrepreneur, as well as from idea to innovation
- Mutual stakeholders' engagement in each other's activities;
- Funding synergies and increased sustainability of longer-term R&I investments;
- Supporting regions to achieve excellence-based innovation and creating alternatives on their pathways to excellence.
- Strengthening the European innovation ecosystems and cohesion policy.

1.2 Stairway to Excellence: Synergies for Innovation

There are considerable territorial disparities in terms of R&I performance across Europe⁵. The two biggest European funds available for R&I activities – Horizon 2020 ([H2020](#)) and the European Structural and Investment Funds ([ESIF](#)) – aim at supporting the development of European competitiveness, growth and knowledge generation, as well as contributing to closing the innovation gap between European countries and regions. Efficient use of EU initiatives and financial sources is a key issue for the European MSs in order to build up sustainable knowledge capacities, to improve the overall quality of national and regional innovation ecosystems and to create the necessary critical mass to address global challenges through innovation. On the one hand, H2020 provides centrally

⁴ EIT Hubs are local organisations in EIT RIS eligible countries, selected by EIT KICs, via an open competitive process, to act as an 'interaction point' between the EIT KIC and actors of the local ecosystem. These organisations might differ in nature, e.g. University lab, NGO, SME, research organisation etc.

⁵ For empirical evidences of the innovation disparity/gap in Europe, also see Özbolat N.K. and Harrap N. (2018).

managed (by the European Commission) funding on the basis of three criteria: (1) excellence, (2) impact and (3) quality and efficiency of the implementation. H2020 provides funding to Member States (MSs) and Associated Countries (ACs)⁶ on the basis of these criteria, regardless of geographical location. On the other hand, ESIF aims to build up and/or enhance innovation capacity in European regions and MSs. Indeed, more than half of European Union funding has been allocated through the five European Structural and Investment Funds. In practical terms, those funds are jointly managed by the European Commission and the EU MSs and regions. These different natures of both programmes cause significant challenges to aligning these sources for efficient R&I implementation. The Stairway to Excellence (S2E) project, in the context of RIS3, supports MSs to primarily address this issue and promotes excellence with an emphasis on complementary use of initiatives/programmes and financial resources by enabling synergies between ESIF, H2020 and other funding instruments. Building synergies, indeed, contributes to two complementary objectives: helping to close the innovation disparities across European territories and increasing the efficiency and effectiveness of the R&I ecosystem. For this purpose, S2E provides both analytical work and policy support to ESIF Managing Authorities (MAs) and other RIS3 implementation bodies and beneficiaries to build capacities that can facilitate access to the Framework Programme (FP) and to other EU funding sources.

1.3 Aim of the Report

Building synergies between European initiatives and funds is of increasing importance, especially in times of limited resources for R&I. This topic is high on the European R&I agenda and the present report aims to show how collaboration between RIS3 stakeholders and the EIT Community can constitute a concrete example of synergies between RIS3 and a FP-supported EU initiative. In the same context, the report can contribute to the debate on the efficient use of public resources, as well the so-desired synergies⁷ between ESIF and H2020.

Concretely, the document elaborates on the benefits and opportunities of collaboration between the EIT Community and RIS3 stakeholders, and identifies bottlenecks and alternative modes of collaboration, with the aim of helping to unlock the potential of an increased collaboration. In line with this, the report provides information and presents mutual benefits on the potential areas of collaboration among the stakeholders of EIT and RIS3. In doing so, it aims to support the R&I activities undertaken by the EIT Community and RIS3 implementation bodies (particularly MAs) and to help identifying innovation and investment opportunities. In addition, it aims to encourage the stakeholders of EIT and RIS3 to collaborate closer in a number of areas. Stakeholders targeted for closer collaboration are various; namely, the EIT KICs, the KIC partners and potential beneficiaries from research, education and business (both organisations and individuals), as well as national authorities (ministries and agencies), ESIF Managing Authorities, RIS3 implementation bodies, regional actors of innovation ecosystems, civil society and all potential ESIF beneficiaries. Finally the report also draws complementary paths for the regions on their stairway to excellence as collaboration with the EIT KICs in a RIS3 context can enhance excellence-based innovation.

⁶ Association to Horizon 2020 is governed by Article 7 of the Horizon 2020 Regulation. The associated countries are Iceland, Norway, Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, Serbia, Turkey, Israel, Moldova, Switzerland, Faroe Islands, Ukraine, Tunisia, Georgia and Armenia. For more information, please see http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/3cpart/h2020-hi-list-ac_en.pdf

⁷ "The European Commission and the Member States are mandated by the regulations that lay down the rules for the ESIF, H2020, and other EU programmes directly managed by the Commission in the areas of research, innovation and competitiveness - in particular COSME, Erasmus+, Creative Europe, European Union Programme for Employment and Social Innovation (EaSI) and the digital services part of the Connecting Europe Facility³ - to ensure coordination, synergies and complementarities', Enabling Synergies between ESIF, H2020 and other research, innovation and competitiveness-related Union programmes" (European Commission, 2014)

After this introductory section, the report continues with a chapter on the models of RIS3 and the EIT, with details on the EIT and its KICs, RIS3, their policy context and current activities. The third chapter focuses on the details of collaboration between EIT and RIS3, including rationale, current state of play, and an overview of current modes of collaborations and potential areas for future collaboration. This section ends with options for upscaling collaboration, following by a concluding section.

2 RIS3 & EIT: Two Main Components of European Innovation Ecosystems

This chapter provides basic information on the EIT, its KICs and RIS3 with emphasis on their policy context, network capacities and current activities.

2.1 The RIS3 Innovation Model

Smart specialisation is an innovation policy concept of the Cohesion Policy of the European Commission, which is a place-based approach characterised by the identification of strategic investment areas based on the analysis of the strengths and potential of the economy and on an Entrepreneurial Discovery Process (EDP)⁸ with wide stakeholder involvement. It aims to boost regional innovation and transform the economic and industrial structures of a territory by creating new capacities and capabilities. Legally, European countries and regions must apply smart specialisation as ex-ante conditionality for accessing the funds available under Thematic Objective 1 of ESIF, in order to identify the knowledge specialisation and priorities that fit their innovation potential. In the EC proposal for the programming period 2021-2027 this will take the form of an enabling condition (Good governance of national or regional smart specialisation strategy) for Policy Objective 1 (A smarter Europe by promoting innovative and smart economic transformation), with 7 fulfilment criteria (See [COM\(2018\) 375 final](#)). Smart Specialisation Strategies (S3) play a key role in fostering an efficient and inclusive research and innovation (R&I) ecosystem by creating the right framework for (1) focused investments based on selected high value-added priorities (2) exploiting the opportunities coming from comparative advantages of the MSs, its regions and countries associated to H2020 (ACs) and (3) a shared vision of territorial development⁹.

2.1.1 The RIS3 Concept as a Coordination Mechanism to Align Diversified Efforts

RIS3 is a place-based approach focusing on the investments addressing key priorities, challenges and needs based on each country's/region's strengths, competitive advantages and potential for excellence with the purpose of getting all stakeholders involved in the design and implementation of R&I policies. The design of national and/or regional RIS3 includes several steps (Foray, D. et al. 2012); namely, (1) analysis of the national/regional context and potential for innovation, (2) the set-up of a sound and inclusive governance structure, (3) production of a shared vision about the future of the country/region, (4) selection of a limited number of priorities for national/regional development, (5) establishment of suitable policy mixes, and (6) integration of monitoring and evaluation mechanisms. On the other hand, the RIS3 implementation consists of various challenges¹⁰ at different levels, as well (Gianelle, et al. 2016):

- effective and efficient EDP;
- establishment of well-structured governance system with involvement of critical stakeholders - particularly business;

⁸ The Entrepreneurial Discovery Process (EDP) refers to the systematic discovery of R&I investment priorities by innovation actors where stakeholders can open/update domains of technological, market and innovation opportunities. The EDP is an inclusive and interactive bottom-up process in which participant from different environment (policy-making, academia, business, etc.) identify potential new activities. Also, The EDP pursues the integration of entrepreneurial knowledge through the building of connections and partnerships between key actors. For more information, please visit <https://s3platform.jrc.ec.europa.eu/entrepreneurial-discovery-edp>.

⁹ Conte and Özbolat, 2016, available at <https://s3platform.jrc.ec.europa.eu/-/synergies-for-innovation-lessons-learned-from-the-s2e-national-events>

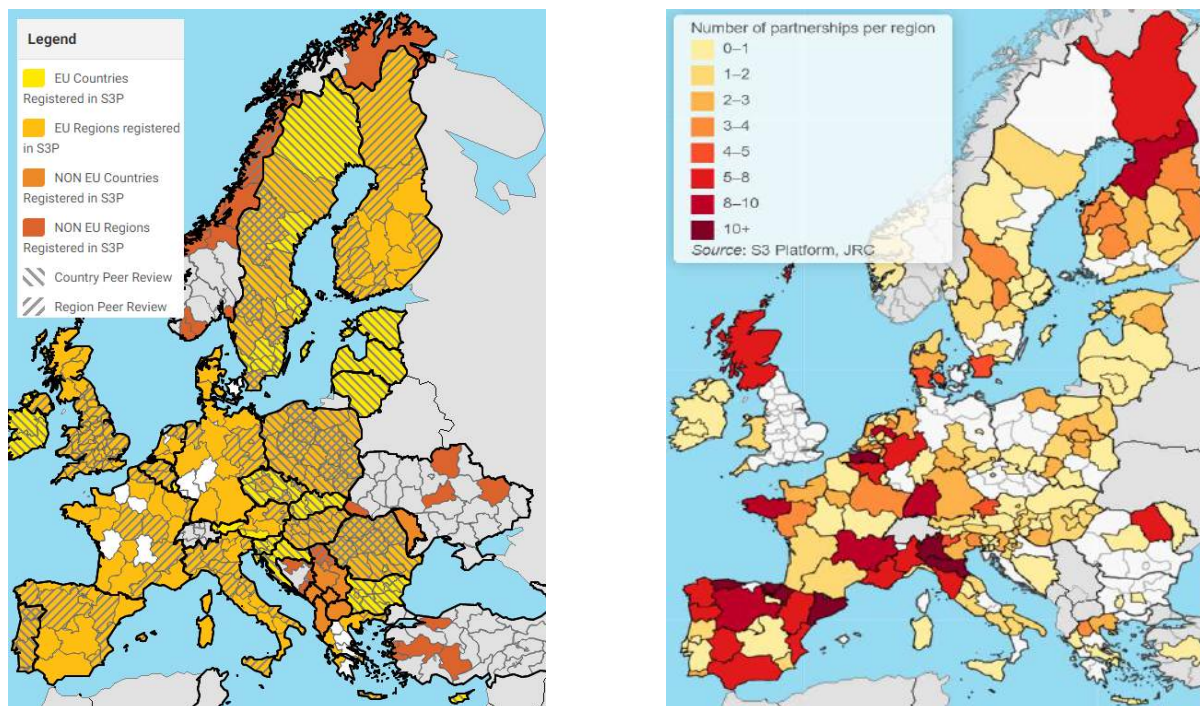
¹⁰ For a detailed overview of the challenges of RIS3 implementation with particular focus on less developed territories, and possible actions to address these challenges, see also Boden, M. et al. (2016).

- defining projects and calls based on selected priorities in order to best realise the innovation potentials in these areas;
- accessing the value chains by means of efficient transnational cooperation;
- mapping and monitoring, as well as developing indicators in the relevant fields.

2.1.2 State of Play of RIS3 Implementation

The S3 Platform¹¹ (S3P) provides advice to EU countries and regions for the design and implementation of their Smart Specialisation Strategy (S3). Countries and regions wishing to be involved in the S3 Platform activities can join by registering. Already 26 countries and 200 regions from inside and outside the EU registered in the S3P (figure 1).

Figure 1. Territories registered in the S3 Platform & Interregional collaborations per region



According to Sörvik et al. (2016), RIS3 has already created an impact on the MSs' behaviours of collaboration in the field of R&I. RIS3 implementation particularly helped to increase the number of international collaborations owing to the improvements in information sharing, structured regional policy and increasing interactions between business and public authorities in charge of R&I policy. Also, it has facilitated alignment of the activities undertaken by different organisations. Indeed, the alignment between RIS3 and national R&I policies is considered as a critical issue for the innovation projects funded by the EU instruments as it would provide opportunities to maximise comparative advantages and obtain long-term financial commitments in different phases of the innovation process. At this point, smart specialisation can be considered as a coordination mechanism to align different efforts and activities as each regional and national authority in charge of managing RIS3 develops strategies and follows up the RIS3 implementation. This structure allows local authorities to design, plan, implement and assess innovation investments under a coherent methodological approach. The analysis of the level of alignment between RIS3 and themes and objectives of the

¹¹ <https://s3platform.jrc.ec.europa.eu/>

projects funded under the frameworks of European platforms and bodies, including the EIT KICs, can be an efficient start to coordinate separated efforts with a shared common vision where these themes and RIS3 priorities match each other. Also, this can contribute to the efficient complementary use of services and financial resources provided by these schemes. Moreover, it can support the main actors to address one of the weaknesses of the regional innovation ecosystems, which is the need to strengthen coordination and cooperation of responsible authorities and innovators. Therefore, the RIS3 concept does not only provide a methodological approach for the European countries and regions, but also offers a coordination tools to align broad R&I investments in a given territory.

2.1.3 Interregional Cooperation

The current Cohesion Policy encourages regions and Member States to build regional coalitions to support the creation of new European value chains, in areas associated with strategic growth. To support this goal, starting in 2015, the European Commission services launched three thematic smart specialisation platforms (TSSPs). These platforms have been put in place to provide an interactive and participatory environment supporting interregional cooperation in the context of smart specialisation areas related to Agri-Food, Energy and Industrial Modernisation.

In particular, the thematic S3 platforms are contributing to building an increasing number of interregional partnerships across the EU. These collaborative networks have the ultimate goal of establishing European ecosystems for transnational and interregional collaboration in regions and countries with similar or complementary S3 priorities. Together, partner regions analyse and tackle various obstacles related to the implementation of their smart specialisation strategies. Thematic partnerships help regions to improve their regional knowledge base, leading to new paths of development and a better position in global value chains and to transnational joint strategies of innovation.

The thematic platforms offer a structure to exploit synergies across partnerships and across sectors. These platforms are joint initiatives, managed and coordinated by the Joint Research Centre (JRC), with the support of several EC's Directorates-General including Regional and Urban Policy (REGIO), Agriculture and Rural Development (AGRI); Energy (ENER); Internal Market, Industry, Entrepreneurship and SMEs (GROW) and Research and Innovation (RTD).

The Platforms provide expertise, advice and networking opportunities through workshops and seminars. In a nutshell, TSSP activities contribute to a wide set of objectives as presented in table 1.

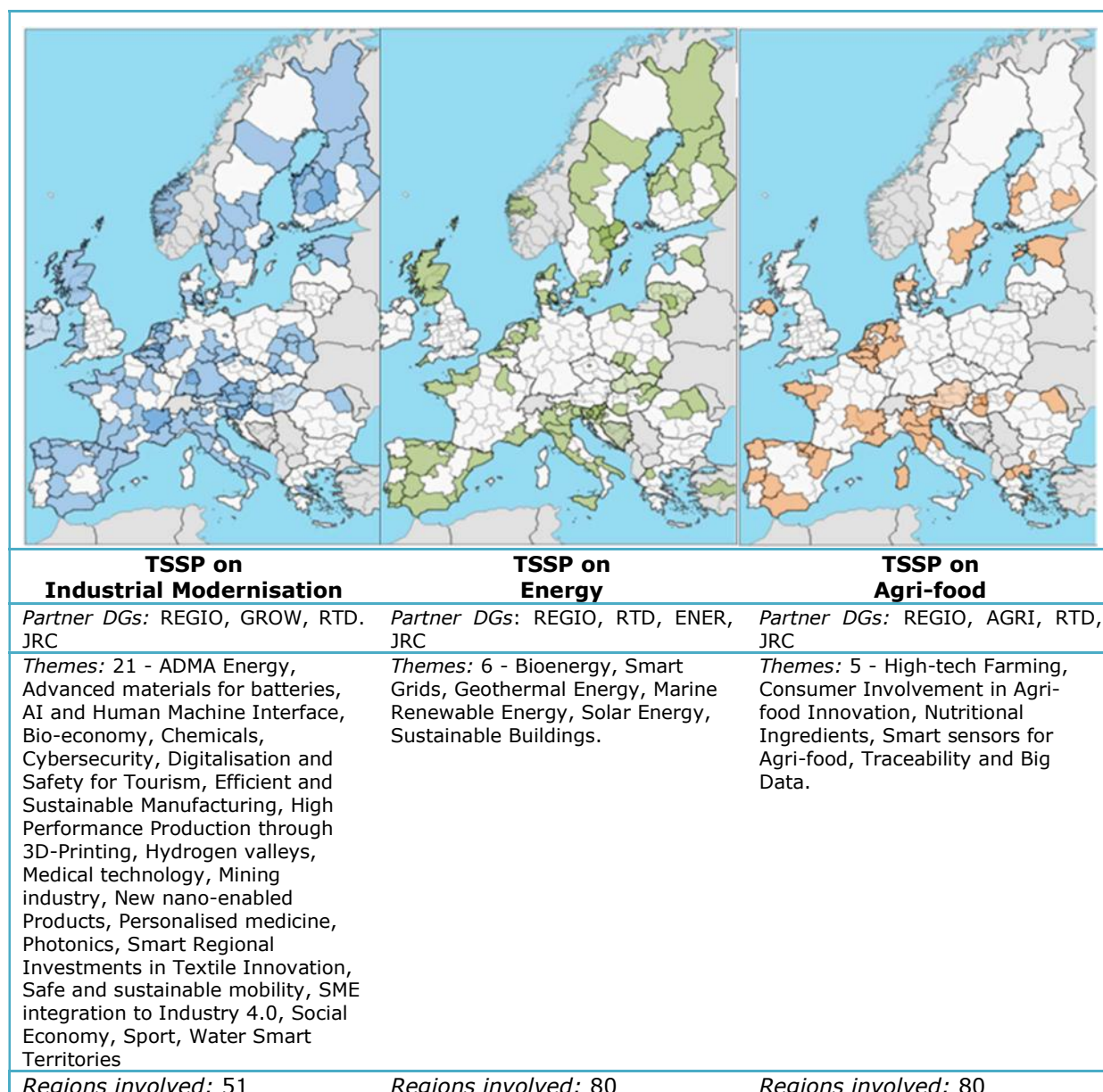
Table 1. Objectives of the Thematic Smart Specialisation Platforms activities

<ul style="list-style-type: none"> ✚ connecting regional innovation eco-systems ✚ exploiting complementary strengths, avoiding duplication of investments and efforts in R&I ✚ overcoming interregional fragmentation and lack of critical mass ✚ improving the existing business environment by identifying barriers to innovation, new investment or skills. ✚ facilitating access to wider business and knowledge networks 	<ul style="list-style-type: none"> ✚ joining, enhancing and even creating new EU value chains in specific areas linked to S3 priority areas, expanding business opportunities and realising joint investment projects ✚ developing shared infrastructures ✚ building synergies with other regional, national and EU initiatives: H2020, SET-Plan, etc. ✚ mobilising bottom-up cluster actors for forging new business opportunities
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Figure 1 shows the participation by region in all interregional partnerships. Figure 2 shows the overview per thematic platform, as well as the concrete topics of each interregional collaboration initiative.

In order to further support innovation projects proposed by the interregional partnerships, the European Commission (DG REGIO) launched in early 2018 a pilot action which focuses on commercialisation and scale-up of concrete joint investment projects, while building on the work already undertaken under the thematic S3 platforms on the learning, connecting and demonstration phases. Eight partnerships supported by the S3 platforms have been selected under this pilot action.

Figure 2. Participation in interregional partnerships by Thematic Smart Specialisation Platform



Another group of activities of the *Interregional Cooperation* is S3 cooperation in the frame of the “EU Macro-Regional Strategies” (MRS)¹². These strategies offer supports in

¹² <https://s3platform.jrc.ec.europa.eu/eu-macro-regional-strategies>

designing and implementing RIS3 at inter-regional and trans-national levels in specific geographies; namely, the Baltic Sea (EUSBSR)¹³, Danube (EUSDR)¹⁴, Adriatic & Ionian (EUSAIR)¹⁵ and Alpine (EUSALP)¹⁶ regions. These strategies altogether serve to 19 EU MSs and six non-EU countries.

2.1.4 Targeted Support to RIS3 Activities from the Joint Research Centre

The Joint Research Centre (JRC)¹⁷ provides practical and analytical support to European territories in implementing Research and Innovation Strategies for Smart Specialisation (RIS3). It hosts the Smart Specialisation Platform (S3P)¹⁸ and develops targeted support to S3 implementation as part of the Unit B3 "Territorial Development". The support activities are conducted in close collaboration with DG REGIO and other Directorates-General, as well as related European actors and initiatives, national and regional authorities of MSs, universities, companies, NGOs and cities.

Working in close symbiosis with the S3P, STRIVE¹⁹ is a group of JRC projects centred on *hands-on* engagement with national and regional stakeholders in order to support the efficient implementation of RIS3. Correspondingly, the quadruple helix actors of the MSs and regions are actively involved in the STRIVE activities. "*Stairway to Excellence*" (S2E)²⁰ (also see section 1.2) and "*RIS3 in Lagging Regions*"²¹ are parts of STRIVE and work in close collaboration with DG REGIO and the European parliament and with a number of national and regional stakeholders across Europe. Another STRIVE project, "*Higher Education for Smart Specialisation*" (HESS)²², focuses on the educational activities and helps developing innovation capabilities by strengthening the role of HEIs in regional partnerships, in close collaboration with DG EAC. Beside universities and research organisations, the project facilitates collaborations with national authorities and business.

JRC also supports the "*Blue Growth*"²³ long-term strategy to support sustainable growth in the marine and maritime sectors as a whole. The project is aligned with the EU's Blue Economy and is implemented in close collaboration with DG MARE. It applies the S3 innovation model to Blue Growth related fields, e.g. green shipping, water transport, blue renewable energy and marine biotechnology.

Lastly, JRC also supports "*Digital Growth*"²⁴ with a contribution to developing a digital single market for smart, sustainable and inclusive growth in Europe. The project focuses on ICT issues and provides documents and links to guiding material for regions developing digital growth strategies. JRC works together with DG CONNECT in the field of Digital Innovation Hubs (DIHs) and provides targeted support including an [online tool to visualise the DIHs' geographic distribution](#), the [Digital Innovation Hubs Catalogue](#), a [Digital Agenda Toolbox](#), tools for ICT Monitoring ([planned ICT investments under ESIF](#)) and [Mapping S3 ICT priorities](#), as well as [online trainings](#) on digital growth.

The activities grouped under the "S3 Beyond EU"²⁵ carries out the smart specialisation methodology beyond EU borders. In line with the [European Enlargement Policy](#) and [European Neighbourhood Policy](#), these activities support the EU enlargement countries

¹³ <https://s3platform.jrc.ec.europa.eu/s3-in-baltic-sea-region>

¹⁴ <https://s3platform.jrc.ec.europa.eu/danube-macroregion-activities>

¹⁵ <https://s3platform.jrc.ec.europa.eu/s3-adriatic-ionian>

¹⁶ <https://s3platform.jrc.ec.europa.eu/alpine-region>

¹⁷ <https://ec.europa.eu/jrc/en>

¹⁸ <https://s3platform.jrc.ec.europa.eu/>

¹⁹ STRIVE is an acronym for Support for Transitions in Regional Innovation Ecosystems (<https://s3platform.jrc.ec.europa.eu/s3-targeted-support>)

²⁰ <https://s3platform.jrc.ec.europa.eu/stairway-to-excellence>

²¹ <https://s3platform.jrc.ec.europa.eu/ris3-in-lagging-regions>

²² <https://s3platform.jrc.ec.europa.eu/hess>

²³ <https://s3platform.jrc.ec.europa.eu/blue-growth2>

²⁴ <https://s3platform.jrc.ec.europa.eu/digital-growth>

²⁵ <https://s3platform.jrc.ec.europa.eu/s3-beyond-eu>

(Serbia, Montenegro, FRY Macedonia, Kosovo, Albania and Turkey) and the EU Neighbourhood countries (Moldova, Ukraine, Georgia and Tunisia) in terms of the design of S3 and sustainable regional development. Additionally, the activities under the "International Cooperation"²⁶ collaborate with a wider set of countries, namely Argentina, Australia, Brazil, Canada, Chile, China, Colombia, Mexico, Peru, South Africa, Thailand and Norway.

To sum up, the JRC provides comprehensive support to the design and implementation of RIS3. These activities, by definition, build up and/or participate in the collaborative projects. On the one hand, these collaborations include the main actors of RIS3, including related European Commission services, national and regional authorities, universities and research institutions, business enterprises, cities and regions. On the other hand, these projects contribute to foster interregional cooperation based on matching RIS3 and facilitate public-private-partnerships. The scope of smart specialisation approach has already been spread out to a variety of localities in Europe and across the globe.

2.2 EIT and Its Innovation Model

The European Institute of Innovation and Technology (EIT) was created in 2008 to strengthen Europe's ability to innovate. The EIT's novel approach is based on the integration of business, education and research. Its mission is to contribute to sustainable European economic growth and global competitiveness by reinforcing the innovation capacity of the Member States (MSs) and the EU in order to address major challenges faced by European society. It does this by what is called Knowledge Triangle Integration (KTI): Promoting synergies and cooperation among, and integrating, higher education, research and business of the highest standards. The EIT pursues that through KTI systemic changes will be brought about for the benefit of innovation and entrepreneurship. Examples include developing more entrepreneurial mind-sets among all actors and sustainable intensification of the collaboration between Higher Education Institutes (HEIs), research organizations and the private sector.

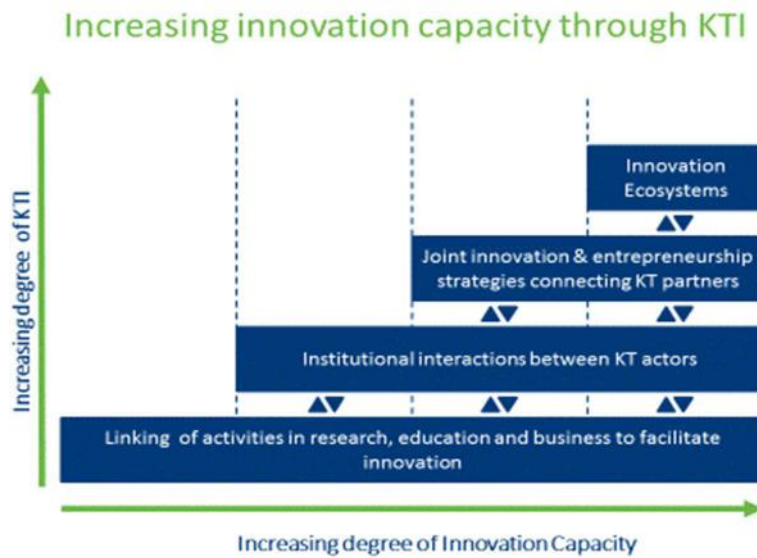
2.2.1 The Knowledge Triangle and the EIT Knowledge and Innovation Communities (KICs)

The Knowledge Triangle involves many actors, including large industry, public bodies, NGOs, SMEs, research organisations, investors, end-users, and public authorities at local regional, national and supranational levels. The theory behind KTI stipulates that a higher degree of integration between the different types of actors leads to an increase in innovation capacity. Relationship between the degree of KTI and the degree of innovation capacity follows four distinctive stages, as pictured in Figure 3. As a first level of KTI, activities in research, education and business are linked to facilitate innovation. Through integrated activities, deeper interaction between stakeholders from the knowledge triangle is facilitated. These actors are then more likely over time to display a deeper integration in their innovation and entrepreneurship strategies, of which joint strategies and activities are a clear signal. Ultimately, the integrated activities, institutional interactions and joint strategies lead to a networked innovation ecosystem. It needs to be highlighted that KTI is not a goal of the EIT on itself. Instead, it is best regarded as a means of bridging the gap between research and commercialisation, strengthening the innovation community of the European Union and increasing the (commercial) applicability of cutting-edge research relevant to societal challenges.²⁷

²⁶ <https://s3platform.jrc.ec.europa.eu/international-cooperation>

²⁷ EIT (2017), "EIT Impact Study", Budapest: October 2017

Figure 3. Relationship between Knowledge Triangle Integration & innovation capacity



Source: EIT, 2017

At the core of the *modus operandi* of the EIT lies the creation and support of Knowledge and Innovation Communities (KICs), the operational arms of the EIT. They are best described as closely interlinked trans-European partnerships built around specific themes (societal challenges) where stakeholders from higher education, research, business, cities, regions and NGOs collaborate intensively. The EIT Community today brings together more than 1500 leading partners. Each EIT KIC consists of a network of nodes, led by an EIT KIC Head Quarter (HQ). The EIT KIC HQ fulfils a strategic role focused on defining the overall strategy of the EIT KICs and being the administrative heart that deals directly with the EIT. For each EIT KIC, the national and/or regional implementation of activities is concentrated in a (selected) number of *nodes of excellence* across Europe. Each node runs at least one physical space, namely *Co-Location Centre (CLC)*, also called *Innovation Hub*, where national and regional activities take place.

The key role of EIT KICs is to aim at contributing to solutions for addressing the societal challenges²⁸. In doing so, they contribute to the goals of the H2020 programme²⁹, which is also aligned with these challenges. Thus far, eight EIT KICs have been established. The latest two EIT Manufacturing and EIT Urban Mobility, are in a start-up phase and will become fully operational in 2020. Table 2 presents the eight EIT KICs, while Annex 1 provides a more detailed overview (objectives, partners and networks/ locations).

The EIT KICs, as dynamic European partnerships, create a favourable environment for creative thoughts, allowing innovative products and services to be developed in a variety of areas, new companies to be started, and a new generation of entrepreneurs to be trained. They carry out a whole range of activities that cover the entire innovation chain – including training and education programmes, reducing the time from lab (research) to the market, innovation projects, as well as business incubators and accelerators. By doing so, they operate as innovation platforms that facilitate the mobilisation of a variety of resources such as knowledge, financial and human capital with the aim of increasing the innovation capacity through KTI (Vivas Lalinde et.al. 2018).

²⁸ For societal challenges, also see <https://ec.europa.eu/programmes/horizon2020/en/h2020-section/societal-challenges>

²⁹ According to the European Commission proposal for Horizon Europe Programme (June 2018), the EIT and its Knowledge and Innovation Communities will continue contributing to the goals of the Horizon Europe Programme, in the post-2020 period.

Table 2. EIT Knowledge and Innovation Communities and their main foci

Launch	EIT KIC	Main Focus
2010	EIT Climate-KIC	Working to accelerate the transition to a zero-carbon economy
	EIT Digital	Driving Europe's digital transformation
	EIT InnoEnergy	Achieving a sustainable energy future for Europe
2014	EIT Health	Giving EU citizens greater opportunities to enjoy a healthy life
	EIT Raw Materials	Developing raw materials into a major strength for Europe
2016	EIT Food	Leading a global revolution in food innovation and production
2018	EIT Manufacturing	Strengthening and increasing the competitiveness of Europe's manufacturing industry
	EIT Urban Mobility	Smart, green and integrated transport

The EIT KICs operate in line with business logic and take a result-oriented approach. While each EIT KIC is driven by a lean management team (led by a CEO), the EIT KIC partners are represented by a single legal entity to allow more effective decision-making. In this way, they are able to provide a well-defined annual business plan by setting out a multiannual strategy, supported by a portfolio of activities. All these activities have clear targets and deliverables, focusing on both market and societal impact, while contributing to the long-term strategic objectives of the EIT KICs, and gradually to the objectives of Cohesion Policy based on the *overall harmonious development* of EU's Member States and regions.

2.2.2 State of Play of Implementation

Each EIT KIC manages an integral portfolio of entrepreneurship, education and innovation activities, e.g. start up and scale up support, access to finance, MSc, PhD and professional learning programmes (including MOOCs), as well as innovation projects on several areas. The EIT KICs' working field/theme and main activities undertaken in terms of education, R&I and business support (non-exhaustive list) is available in Annex 2.

As an integral part of H2020, the EIT has been allocated €2.4 billion in this programming period³⁰. The EIT's funding model seeks to align, pool and eventually leverage the EIT KICs' innovation investments. In order to meet these objectives, the EIT applies a funding model where the EIT financial contribution on average does not exceed 25% of an EIT KIC's overall resources over its lifetime (see figure 4). This is for activities that contribute to the integration of the knowledge triangle and the overall objectives of the EIT, including the establishment, administration and coordination of the EIT KICs' activities. Although the remaining 75% is not directly funded, the EIT can cover complementary activities contributing to the implementation of the Strategy of the Innovation Community³¹.

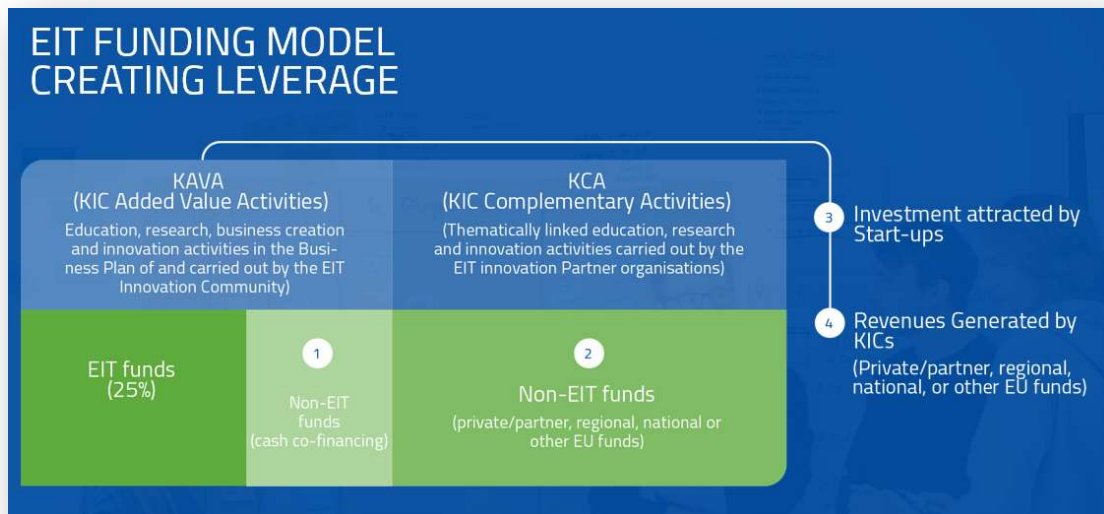
Each of the EIT KICs has to develop and implement a financial sustainability strategy and concrete measures with a vision of financial independency from the EIT in the long-term (15-year period). The EIT encourages the EIT KICs to use complementary financial resources from other sources (including private or/and public funding, as well as ESIF and other budget lines of H2020) in order to support the transition of EIT KICs towards financial sustainability. The EIT KICs present in their business plans and reports with emphasis on their concrete measures to generate revenues. In this context, the total

³⁰ The European Commission proposal for future Horizon Europe R&I programme proposes a budget of 3bil. EURO for the EIT.

³¹ Partners in an EIT KIC design a realistic, specific, measurable, achievable and time-dependent 7-year Strategy, to address the concrete challenges posed in their thematic field, accompanied by specific, relevant and measurable strategic objectives.

combined revenue generated by the EIT KICs in 2018 was approximate €38.5 million and projections for 2019 and 2020³² respectively are €61.5 and €84.5 million.

Figure 4. EIT's funding model: leveraging and pooling resources



Four layers of leverage: (1) Complementary funding of activities by KIC partners in the same thematic area; (2) Cash co-financing provided by KIC Partners to the KICs' budget - already up to 20-30%; (3) External investment provided to the start-up companies supported by KICs; (4) Revenues generated by KICs for their financial sustainability

Source: EIT, 2019

The EIT has been designed with a cross-cutting nature and with a strong mandate to create synergies. This is perfectly in line with the EIT Innovation Model to seek and realise synergies both at EIT and KIC level with other EU initiatives and European Commission services. In this context, the EIT Community has been interacting with other bodies and instruments, and increasingly contributing to collaborative policy-making processes. Moreover, synergies and efficiency gains are explored also within the EIT Community as EIT has a key role in fostering synergies and incentivising interaction across the EIT KICs. In 2017, EIT launched five cross-KIC activities in areas of mutual interest and with the aim to work in a more coordinated and efficient manner. All these activities are coordinated by the EIT Community working groups, with the participation of experts from the KICs and EIT as an observer. The respective cross-KIC activities for 2018-2019 are presented in Annex 3.

As an integral part of H2020, the EIT is strongly relevant to tackle global societal challenges and address main barriers to innovation, such as the lack of entrepreneurial culture, low levels of cooperation between academia and industry and insufficient development of human capital. According to the EIT's Mid-term Evaluation Report³³, the integration of the Knowledge Triangle increases knowledge flows and fosters new types of cooperation which reduce fragmentation. Between 2012 and 2018, the EIT Knowledge and Innovation Communities brought over 900 innovative products and services to the market in the areas of climate change, digitalisation, energy, food, health and raw materials. Some of these products and services are disruptive and have the potential to transform sectors. More than 2000 ventures were supported, leading to over EUR 1,5 billion in external funding and creating over 6,100 jobs, while more than 2,300

³² Projections refer to already operational KICs, excluding EIT Urban Mobility and EIT Manufacturing (will become operational in 2020).

³³ European Commission (2017) [EIT Mid-term Evaluation](#).

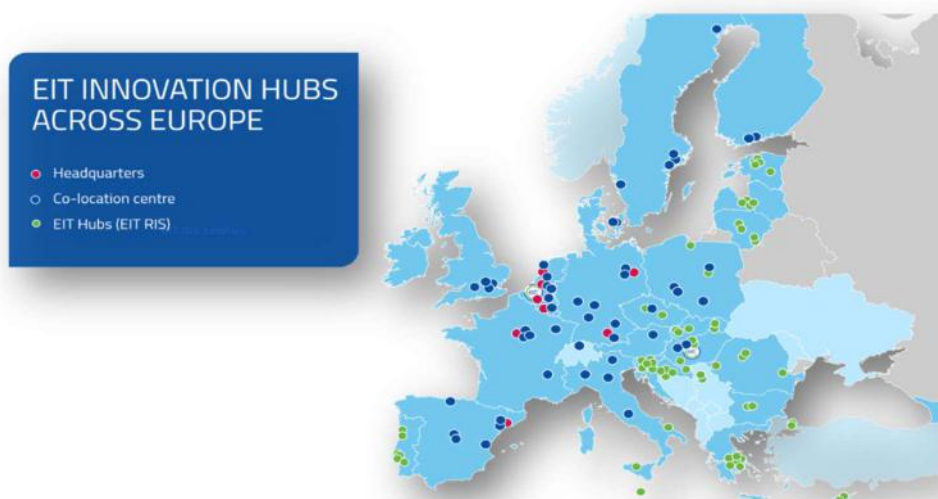
graduates have successfully completed an EIT-labelled master's and/or doctoral programme, with a forecast of 5000 graduates by the end of 2020.

2.2.3 Regional and Interregional Perspective of EIT

The eight EIT Knowledge and Innovation Communities are anchored in the local innovation ecosystems through their CLCs. Each EIT KIC has (from five to eight) regional CLCs in collaboration with partner organisations, which facilitates interactions among the regional actors (see figure 5). These CLCs are the main instruments to manage activities and foster knowledge flow. Furthermore, they leverage existing infrastructures (e.g. labs, offices, campuses and existing CLCs) to physically bring together talents from all sides of the knowledge triangle to facilitate intensive collaboration and support the innovative activities. In addition, they bring together individuals, teams and organisations across the knowledge triangle (business, research and education) to develop ideas, projects and initiatives. Moreover, they are innovation enablers for the local innovators and have an important role in regional as well as interregional economies by stimulating the flows of ideas and supporting projects and investment within and across borders. By offering a physical location where entrepreneurs and innovators can interact, the EIT CLCs facilitate face-to-face cooperation and collaborations. Currently, there are more than 50 EIT CLCs across Europe, which are expected to increase further by 2020 (for all eight EIT KICs).

Furthermore, the EIT launched in 2014 its Regional Innovation Scheme (EIT RIS), which aims to disseminate the knowledge and know-how of the EIT Community as well widen the participation in its EIT KICs in countries and regions where innovation capacity is considered to be moderate or modest³⁴. In March 2017, based on the experience of the first (pilot) two years of implementation of the scheme, the EIT issued a new EIT RIS Guidance Note for 2018-2020³⁵. This guidance note has a particular focus on strengthening innovation ecosystems at national and regional levels while opening the EIT KICs activities for individuals and entities.

Figure 5. EIT Co-Location Centres and EIT Hubs



³⁴ According to the European Innovation Scoreboard. EIT RIS eligible countries are the following EU Member States: Bulgaria, Croatia, Cyprus, the Czech Republic, Estonia, Greece, Hungary, Italy, Latvia, Lithuania, Malta, Poland, Portugal, Slovakia, Slovenia, Spain and Romania and as well as the following H2020 Associated Countries in Europe: Albania, Armenia, Bosnia and Herzegovina, the Faroe Islands, the Former Yugoslav Republic of Macedonia, Georgia, Moldova, Montenegro, Serbia, Turkey and Ukraine.

³⁵ The guide is available at https://eit.europa.eu/sites/default/files/eit_ris_guidance_note_2018-2020.pdf

Today, 18 EIT RIS countries, including MSs and ACs, host over 60 EIT Hubs and deliver activities in almost all eligible countries (e.g. through participation in business creation and education programmes and more)³⁶. EIT Hubs are local organisations in EIT RIS eligible countries, selected by the EIT KICs, via an open competitive process, to act as an 'interaction point' between the EIT KIC and actors of the local ecosystem. The EIT KICs implement their activities in the country via these hubs, gradually turning them into a part of its community and with an ambition to grow them into CLCs, centred around a (potential) critical mass of EIT KIC partners in the region and able to spark the cooperation and co-creation among local business, research, academia and public sector players. Furthermore, they are selected with a view to facilitating the use of local competences and resources for a better innovation output.

Since the launch of EIT RIS in 2014, around 190 organisations from EIT RIS eligible countries entered the EIT Innovation Communities networks. To date, these organisations represent 16 EIT RIS countries, a significant progress compared to the number of five in 2014, as well as a proof that EIT RIS is delivering on its purpose: widening participation to the EIT Community.

³⁶ EIT RIS Report 2018 available at <https://eit.europa.eu/library/eit-ris-report-2019>

3 Collaboration between EIT KICs and ESIF in a RIS3 Context: Rationale, Status, Potential and Opportunities

This chapter presents the rationales, needs and benefits of building up collaborations among EIT Community and RIS3 stakeholders. It also provides information on the current status of collaboration and discusses an inventory of potential collaboration areas and possible ways of future collaboration.

3.1 RIS3 & EIT KICs: Rationales and Complementarities for Collaboration

RIS3 is a place-based approach, promoting investment in innovative activities in selected areas of knowledge specialisation in order to achieve smart, inclusive and sustainable growth. On the other hand, EIT establishes efficient innovation ecosystems (the EIT Knowledge and Innovation Communities) across Europe based on the Knowledge Triangle Integration (KTI). A closer collaboration between RIS3 and the EIT KICs' actors across Europe can be beneficial, due to the fact that both aim at: (1) building Europe-wide value chains (with the involvement of public and private actors); (2) work with the knowledge triangle at regional level; and (3) tackle very similar societal challenges. Additionally, both work towards strengthening regional innovation ecosystems, maximising knowledge flows and contributing to innovation diffusion throughout the entire regional economy. An overview of conceptual similarities is presented in Table 3.

Table 3. Conceptual similarities of EIT KICs and RIS3

	EIT Innovation Model EIT KICs	Cohesion Policy RIS3
Bottom-up approach	✓	✓
Central role for business, research and education	✓	✓
Focus on market potential and societal challenges	✓	✓
Governance and monitoring shared between stakeholders	✓	✓
Potential for contribution to the creation of 'European' value chains	✓	✓
Aim to introduce new processes (focus on innovation ecosystem)	✓	✓
Incremental and disruptive approach to innovation process	✓	✓

Source: Haegeman and Könnölä (2015) (updated by the authors)

Both EIT's Knowledge Triangle Integration (KTI) approach and the Entrepreneurial Discovery Process (EDP) of RIS3 aim to bring together different actors of innovation and to design and implement strategies based on a bottom-up approach. Active participation of the EIT Community (with all components like CLCs, EIT Hubs, EIT KICs' partners etc.) into the EDP can contribute to the main objective of the EDP (identification of clear priorities that have the potential to lead to a competitive advantage in the region) and at the same time help connect local investments to European and global value chains. The EIT KICs expertise and deep market penetration can be a significant support for regional authorities in the process of identifying local competitive advantages and smart

specialisation priorities. Also, the process of EDP can help the EIT KICs to get more involved into the local ecosystems, engage with national and regional authorities as well as spread out their activities towards less developed regions. Such collaboration can help both RIS3 and EIT actors to enhance their bottom-up approach and to support each other in terms of the implementation of methodological processes to achieve their objectives.

Table 4. Conceptual differences and complementarities of EIT and RIS3

EIT Innovation Model EIT KICs		Cohesion Policy RIS3
Excellence (increasing emphasis on Cohesion Policy through EIT RIS)	Focus	Cohesion (including support actions for excellence)
Voluntary	Status	Mandatory
EIT KICs in different maturity phases	Phase	Planning phase finished; implementation matured
Important role for knowledge triangle actors – more business oriented – increasing emphasis on public sector	Differences in stakeholder involvement	Important role for public administration and civil society – increasing emphasis on business involvement
Network of over 50 CLCs linking over 1500 partners across Europe	Interregional collaboration	Emphasised in terms of orientation to global value chains & Experienced via macro-regional projects
Different levels of access to EIT KIC activities (from membership to simple participation in activities e.g. accelerators, EIT RIS activities, MOOCs etc.)	Openness	Already brought a more open dimension into regional policies through EDP and seeking ways for more open innovation ecosystems
Legal entities, run by a lean management team (led by a CEO)	Governance	Coordinated by EU and national public administration (with critical role for business)
As members of EIT KIC network (e.g. cities, regions) or strategic EIT KIC stakeholder and collaborator (e.g. Ministries, MAs...)	Role of public sector	As orchestrator (bringing together people, organisations, key information, resources and ideas generated by different actors)
T-shaped approach (Strongly thematic with focus on entrepreneurial and innovation skills)	Education	Mainly non-thematic
Full set of business support (services and low-volume grants) to start-ups and scale-ups	Entrepreneurship	Increasing emphasis & mostly non-thematic support to entrepreneurship
At the core	Value chains	On the target
TRL 6-9 and CRL 3	Distance to market (CRL and TRL)	Upstream: TRL 1-3 & CRL 1 Downstream: TRL 6-7 & CRL 3

Source: Enhanced version of the table developed by Haegeman and Könnölä (2015)

Also, complementary characteristics can be observed in the methodological processes (table 4). For instance, on the one hand, the business orientation of the EIT KICs can support the RIS3 implementation facilitating the active participation of business into the design and implementation of smart specialisation strategies. Similarly, educational activities are more present in the EIT Community and practises enabling to integrate education into R&I activities can help RIS3 implementation bodies to improve the quality of their educational activities. On the other hand, the public organisations in charge of ESIF and implementation of RIS3 have strong connections with the local actors, which can facilitate accessing the information on the regional innovation ecosystems and key actors for the EIT Community.

The interest in cross-border and cross-regional collaboration has significantly increased in the current programming period. Over 30 interregional partnerships connect smart specialisation strategies in different thematic areas through the Thematic Smart Specialisation Platforms. Similarly, the EIT KICs link regional innovation eco-systems across Europe in a sustainable and effective manner through a European network of over 50 CLCs in MSs and ACs, (anticipated to further increase by 2020). Exploring relations between the different interregional initiatives can make the case for exploiting complementary characteristics. However, for the EIT Community, the focus on synergies with emphasis on integration of different types of stakeholders requires going beyond the current organisation structure and to build up collaboration with regional and other local organisations, particularly institutions in charge of European/national funding programmes. As all regional activities of EIT KICs are primarily driven by the CLCs and EIT Hubs, these spatial nodes of the EIT network can help to capitalise various funding schemes from their respective regions in relation to the Cohesion Policy requirements by addressing the links between the local and global aspects of innovation, as highlighted by EIT: *"the Co-location Centres offer platforms for cross-border collaboration playing a major role in strengthening the local-global connectivity of the EIT KIC as a whole, including through close co-operation with regional authorities, in particular those involved in designing and delivering the Research and Innovation Strategies for Smart Specialisation (RIS3)"*³⁷. In this way, the EIT through its innovation model shows that creating a better connection between academia, business and regional innovation requires a close coordination of regional and national smart specialisation strategies and, of course, the local authorities, as well as decision-making and RIS3 implementing bodies.

Moreover, through the EIT Regional Innovation Scheme ([EIT RIS](#)), the EIT Community has increasingly been supporting the MSs, ACs and their regions that have relatively less capacity in terms of innovation performance. As mentioned in the previous chapter, the scheme focuses on the transfer of know-how and knowledge from the EIT Communities' experience, while opening up their activities to benefit individuals (students, researchers, innovators and entrepreneurs) and organisations (e.g. SMEs, universities, research organisations, national, regional and local authorities, NGOs and cities) that are not EIT KIC partners. In addition, the EIT RIS is conceptualised to enable synergies and achieve benefits for regions and countries through their identified RIS3. Hence, the approach underlying EIT RIS (sharing knowledge and widening participation in EIT KICs) can offer a broad range of collaboration opportunities to European countries and regions and responsible organisations, such as training and incubation support for young enterprises, scaling-up micro companies and SMEs, as well as entrepreneurial education opportunities. This is particularly interesting and relevant when taking into account that EIT KICs are requested to have a tailor-made approach in EIT RIS eligible countries, responding to the local needs and innovation potential.

As mentioned in the EIT RIS Implementation Guidance Note (2017), broader EIT RIS impact at national/regional level can be achieved by interacting with the national/regional RIS3 responsible organisations and Managing Authorities (MAs), regional institutions and implementing actors. Information flow and reporting mechanisms between these

³⁷ EIT (2014) Background Note on EIT Regional Innovation Scheme (EIT RIS).

stakeholders could result in creating a joint pipeline of projects and, possibly, organising joint calls and co-financing schemes. Consequently, facilitating interaction and enhancing communication among key actors of innovation can not only support enabling synergies in a collaborative working environment but also create more opportunities for future collaborations, and at the last instance, it can help to foster regional capacities and enhance regional innovation ecosystems.

3.2 Status & Collaboration Opportunities between EIT Community and RIS3 Stakeholders

After nine years of operation and through constant integration of lessons learnt and evolution, the EIT has proved to be a model that delivers innovation³⁸. Similarly, the EU's approach to regional innovation policy (smart specialisation) has now been tested during almost an entire programming period. Both initiatives will also be further consolidated during the next programming period. Synergies between both initiatives refer both to the policy level and the funding level³⁹. Existing examples of collaboration and synergies between the EIT Community and RIS3 stakeholders under the smart specialisation approach are summarised in the following section. Subsequently, opportunities and potential for future collaboration are identified.

3.2.1 State of Play

The EIT has been one of the first European initiatives expressing its willingness to practically create synergies with RIS3⁴⁰. The need to explore and ensure synergies between the EIT and RIS3 was introduced for the first time in the EIT's Strategic Innovation Agenda for 2014-2020. Since then, both initiatives have increasingly put effort in facilitating synergies with RIS3 and EIT, for example:

- *Smart specialisation* and *regional development* was one of the priority areas in the context of the strategic partnership between JRC and EIT, sealed in the form of a Memorandum of Understanding (MoU)⁴¹ in 2016.
- The [EIT RIS Implementation Guidance Note 2018-2020](#), published in 2017 by EIT, puts for the first time a particular focus on synergies with smart specialisation strategies (chapter 6).
- The EIT KICs have developed 3-year (2018-2020) Strategies on EIT RIS, where among others, synergies and complementarities of current EIT KICs' activities and projects with EU regional policies/RIS3 is sought.
- A number of activities has been launched, aiming at providing tailor-made support to the MSs and regions in terms of complementing EIT KICs' activities and national/regional OPs, as well as engaging governmental officials responsible in RIS3 in specific trainings (e.g. EIT Climate-KIC's matchmaking events with MAs, EIT Food's Governmental Officials Executive Academy, EIT's and its KICs' contribution to RIS3-related national and EU level events).

³⁸ European Commission (2017) [EIT Mid-term Evaluation](#).

³⁹ Policy synergies refer to achieving impact by providing input to policy making, combining policy positions and influencing strategies in an interactive way. Meanwhile, funding synergies (also mentioned as "programme complementarity") refers to the joint actions where two or more initiatives use their financial resources complementarily to create synergies.

⁴⁰ Another European initiative that embarked on synergies with RIS3 in an early stage constitute the Joint Undertakings (see Haegeman et al., 2019).

⁴¹ A Memorandum of Understanding between JRC and EIT was signed in Budapest on 22/09/2016, prioritising collaboration in the areas of (i) RIS3 and regional development, (ii) education and skills, (iii) innovation and access to finance, and (iv) communication and knowledge management.

- Several collaboration agreements were signed between The EIT Community and national authorities of European countries that are classified as moderate and modest innovators (i.e. EIT InnoEnergy and Latvia and Lithuania; EIT Climate-KIC and EIT Raw Materials and several ministries of Slovenia including governmental agencies responsible for RIS3 implementation; and more are under negotiation). The main objectives of these memoranda are to establish closer collaboration and enable synergies both at thematic (climate change, sustainable energy, circular economy, etc.) and at horizontal (e.g. RIS3, business support, etc.) level.

The strategic collaboration between JRC and EIT has enabled the EIT Community to access the JRC expertise on regional development and agree on several actions which further facilitated synergies with RIS3. More concretely, there are several activities jointly undertaken by the JRC and the EIT Community:

- Bringing together the EIT and RIS3 stakeholders and encourage joint activities, including co-organisation of policy events (i.e. a joint event organised by the EIT Climate-KIC and JRC as part of the Stairway to Excellence project).
- Use of current information tools & dissemination of relevant information including EIT RIS calls (e.g. S3 Newsletter disseminated several call information of EIT and its KICs).
- Support for analytical work & joint papers, reports, handbooks for practitioners etc. (e.g. joint publications of JRC and EIT Community).
- Involvement in events, conferences, EDP, etc. particularly in lagging regions.
- In the fields of Thematic Smart Specialisation Platforms (TSSPs), participation of the representatives from the EIT Community to the steering teams of the Platforms and encouragement of active involvement of the EIT KIC partners into the relevant activities according to the interest and thematic relevance.
- Reviews and contributions for the *EIT RIS Strategies 2018-2020* of EIT KICs, , *EIT Impact Assessment* exercise, EIT Regulation and Strategic Innovation Agenda of EIT for upcoming MFF provided by the JRC Unit B3.

3.2.2 Potential and Opportunities

There are a great number of opportunities for potential future collaborations between RIS3 and EIT with various mechanisms and instruments that can facilitate these collaborations. First of all, as mentioned in the previous sections, the EIT RIS has already facilitated the involvement of local actors into the EIT KICs' activities whilst it also takes account of each KIC's specificity, strategy and portfolio in order to optimise the potential benefits and impact for both sides; the local innovation actors and EIT KICs' partners. In this respect, the EIT RIS not only benefits individuals, organisations and regions through the exchange of knowledge and good practices, but also contributes to accelerating innovation outputs, boosting regional innovation and economic growth. In addition, the scheme promotes alignment between the EIT KICs and national and regional Operational Programmes, which is critical for the facilitation of synergies. Finally, it also opens new ways for the collaboration with local stakeholders and increases the possibility of direct involvement of national organisations (public and private) in the core activities of the EIT Community.

The EIT RIS Guidance Note on Implementation⁴² states that *"...emphasis should be placed on ensuring sustainable and durable activities that act as role models for the EIT RIS countries and regions, attract the interest of regional and national authorities and mobilise additional funding that would allow for a continuation of operations in a sustainable manner for as long as necessary after the implementation of the EIT RIS*

⁴² EIT RIS Guidance Note on Implementation, EIT, 2017.

activities". Therefore, a dedicated EIT RIS funding allocated by the EIT KICs can finance for example scholarships to ensure the participation of individuals with diverse backgrounds from EIT RIS countries in the EIT KIC's education activities. Moreover, national and regional ESIF MAs and the EIT KICs' partners are capable to support each other in terms of offering complementary funding resources, as well as providing complementarities with innovation actors of outside regions, countries and Member States. The EIT KICs' expertise of innovation assessment and business analysis can meet with the local network of national and regional ESIF MAs and make use of their untapped potential through mutually beneficial activities.

One of the main requirements to establish collaboration between EIT and RIS3 is the thematic alignment of both sides' activities. Practically, this requires an analysis of links between the investment priorities of national/regional Operational Programmes⁴³ (OPs) and the EIT KICs' themes. An overall assessment can be done by means of the thematic matches between investment priorities of Cohesion Policy and focus areas under the themes of EIT KICs. These priorities are defined differently for different programming periods; namely, Thematic Objectives (TOs) for the period of 2014-2020 and Policy Objectives (POs) in the period of 2021-27. Table 5.A represents general alignment of TOs and EIT KIC focus areas while table 5.B applies same exercise in the POs. Most of TOs and main working areas of the EIT Community match substantially and provide opportunities to articulate/align the activities.

Table 5.A. General Alignment of Thematic Objectives of 2014-20 Period & EIT KIC Themes ⁽¹⁾

	Climate	Digital	Health	Inno-Energy	Raw Materials	Food	Manu-facturing	Urban Mobility
TO1	Strong match	Strong match	Strong match	Strong match	Strong match	Strong match	Strong match	Strong match
TO2	Possible match	Strong match	Possible match	Possible match	Possible match	Possible match	Strong match	Strong match
TO3	Strong match	Strong match	Strong match	Strong match	Strong match	Strong match	Strong match	Strong match
TO4	Strong match	-	-	Strong match	Possible match	Possible match	Strong match	Strong match
TO5	Strong match	-	-	Possible match	-	Possible match	Possible match	Possible match
TO6	Strong match	-	-	Strong match	Strong match	Possible match	Strong match	Possible match
TO7	Strong match	Strong match	-	Possible match	Possible match	-	Possible match	Strong match
TO8	Possible match	Possible match	Possible match	Possible match	Possible match	Possible match	Possible match	Possible match
TO9	Possible match	-	Strong match	-	-	Possible match	-	Possible match
TO10	Strong match	Strong match	Strong match	Strong match	Strong match	Strong match	Strong match	Strong match
TO11	Possible match	Strong match	Possible match	Possible match	Possible match	Possible match	Possible match	Strong match

⁽¹⁾ Own assessment, based on the general thematic alignment between Thematic Objectives/Priorities⁴⁴ of Cohesion Policy for the period 2014-2020 and the themes of the eight operational EIT KICs.

⁴³ For Operational Programmes, please see https://ec.europa.eu/regional_policy/en/2021_2027/

⁴⁴ For the Thematic Objectives, please see http://ec.europa.eu/regional_policy/en/policy/how/priorities

The number of investment priorities decreased from 11 to 5 for the forthcoming programming period. One of the main motivations is to "enable synergies and flexibility between various strands within a given objective, removing artificial distinctions between different priorities contributing to the same objective" (COM (2018) 375 final, pp.7). In other words, the investment priorities have already been simplified to facilitate thematic alignment. In fact, this simplification can be observed in the thematic alignment exercise in table 5.B. While there are several KIC's themes labelled "strong match" corresponding to each TO, number of "strong matches" corresponding to each PO decreased in table 5.B. Most of the EIT KICs have "strong match" with PO1 (a smarter Europe) and PO2 (a greener, low-carbon Europe). Thus, it is clearer to see which EIT KIC can efficiently contribute to the realisation of each specific Policy Objective. Notably, thematic alignment between investment priorities of Cohesion Policy and EIT KICs' focus areas is expected to be easier in the upcoming programming priorities, and aligning the main support activities and funding opportunities would therefore be less complicated for the EIT Community and RIS3 implementation bodies.

Table 5.B. General Alignment of Policy Objectives of 2021-27 Period & EIT KIC Themes ⁽²⁾

	Climate	Digital	Health	Inno-Energy	Raw Materials	Food	Manufacturing	Urban Mobility
PO1	Strong match	Strong match	Strong match	Strong match	Strong match	Strong match	Strong match	Strong match
PO2	Strong match	Possible match	-	Strong match	Strong match	Strong match	Possible match	Strong match
PO3	Possible match	Strong match	-	-	-	-	Possible match	Strong match
PO4	-	-	Strong match	Possible match	-	Possible match	-	Possible match
PO5	Strong match	Strong match	Possible match	Possible match	Possible match	Strong match	Possible match	Strong match

(2) Own assessment, based on the general thematic alignment between policy objectives⁴⁵ of Cohesion Policy for the period 2021-2027 and the themes of the eight operational EIT KICs

Table 6 summarises main collaboration areas with emphasis on the services that the EIT Community and RIS3 actors provide, the possible stakeholders and related benefits. Following the main activity areas of EIT KICs (education, entrepreneurship and R&I), one can see that collaboration opportunities and mutual benefits relate to virtually all activities.

The actors of EIT and RIS3 offer different and complementary supporting tools and assistance. In the field of education, EIT and its KICs have significant experience and already offer large spectrum of educational activities including schools, postgraduate supports, mobility schemes, workshops, trainings and so on. The RIS3 stakeholders can take advantage over these services based on their territorial needs. In other respect, RIS3 implementation bodies, particularly MAs, commonly have abilities to access and mobilise higher education institutions and research organisations. These organisations can take active roles in the educational activities of the EIT Community. In addition, administrative capacity of MAs and their monitoring tools can offer additional benefits to the EIT Community. For both respects, clearly there is potential to improve communication and mutual involvement of each community to design and implement educational activities.

⁴⁵ For the Policy Objectives, please see https://ec.europa.eu/commission/sites/beta-political/files/budget-may2018-common-provisions_en.pdf

Table 6. Collaboration areas and possible contributions/benefits (1)

Collaboration area	Offers what (EIT)	Offers what (RIS3)	For whom	Benefits for EIT KICs	Benefits for RIS3	
EDUCATION	Graduate/Post-graduates programmes	Lectures / postgraduate support – EIT labelled programmes	Support from the network of HEIs and PROs / Coordination and monitoring of the activities /HESS	<ul style="list-style-type: none"> - HEIs & PROs - Individual professionals and business - MAs - NCPs & H2020 stakeholders 	<ul style="list-style-type: none"> - Support to access educational institution - Better define the needs of individuals - Complementary funding - Secretariat (if needed) - Monitoring (local level) - Better organised educational programmes 	<ul style="list-style-type: none"> - Better use and improvement of educational capacity - Complementary programmes targeting students, young enterprises and SMEs - Addressing the skill gap - Improve entrepreneurial education
	Professional education	Mobility /Exchange	Control legality and regularity / Support from educational networks	<ul style="list-style-type: none"> - HEIs & PROs - Start-ups and SMEs - Individual professionals - MAs 	<ul style="list-style-type: none"> - Information on local needs (also EDP) - Accessing local organisations and companies (also entrepreneurs) - Networking with HEIs - Enhancing the scope of programmes 	<ul style="list-style-type: none"> - Mobility involving students and lecturer (also MAs) - Improving educational capacity - Knowledge transfer - Expert support for local activities - Improve know-how
	Trainings, courses etc.	Workshops, trainings, certificate programmes etc.	Trainings (also in collaboration with the Commission & HEIs) / Monitoring	<ul style="list-style-type: none"> - HEIs & PROs - Business - Individual professionals - Governmental organisations - NCPs & H2020 stakeholders 	<ul style="list-style-type: none"> - Accessing local networks & individuals - Tailor support to local stakeholders - Easier mapping and monitoring - Scale-up education activities 	<ul style="list-style-type: none"> - Capacity building - Expert support to local events / initiatives - Addressing lack of qualification (for administration, assistance etc.)
	Online support	Online courses (MOOCs) and guidelines	S3 tools (Eye@RIS3, ESIF-viewer, R&I Viewer etc.)	<ul style="list-style-type: none"> - Individuals - Professionals 	<ul style="list-style-type: none"> - information on local needs 	<ul style="list-style-type: none"> - Capacity building
ENTREPRENEURSHIP	Idea development / Entrepreneurial pathways (ideation)	Develop innovative ideas	Networking / Verifying the delivery of products / Carrying out to next stage	<ul style="list-style-type: none"> - HEIs & PROs - Business - Cities - Governmental organisations - Individual professionals - NCPs & H2020 stakeholders - MAs 	<ul style="list-style-type: none"> - Increase the participation of local actors in the idea development programmes - Better background & Possibility for mature discussions (+ following EDP experience) - Easier access to venture capital - Access new innovators 	<ul style="list-style-type: none"> - New platforms to carry out innovative ideas - Different types of stakeholders to involve in discussions (also EDP) - Complementary funding - Mentoring and assistance for entrepreneurs
	Pre-incubation/ incubation	Support to students and entrepreneurs	Verifying the delivery / financial management / Clarifying division of	<ul style="list-style-type: none"> - Business - Start-ups and SMEs - Individual professionals 	<ul style="list-style-type: none"> - Identification of local needs (via EDP) - Accessing local enterprises 	<ul style="list-style-type: none"> - Increase know-how - EU level networks - New collaboration

		<i>labour</i>		<ul style="list-style-type: none"> - Complementary funding - Monitoring - Easier follow-up - Higher impact 	<ul style="list-style-type: none"> opportunities - Complementary funding - Employment opportunities - Socio-economic impact
	<i>Acceleration</i>	<i>Coaching & Seed-funding, access to finance, access to customers and partners, internationalisation</i>	<ul style="list-style-type: none"> Monitoring and evaluation / Financial management / TSSPs 	<ul style="list-style-type: none"> - Start-ups and SMEs - Individual professionals - Definition of local needs - Accessing local enterprises - Easier access to EU value chains - Complementary funding - Monitoring - Better impact 	<ul style="list-style-type: none"> - Increase know-how - EU level networks/ internationalisation - New collaboration opportunities - Complementary funding - Access to talents - More employment
	<i>Piloting and test-beds</i>	<i>Test, refine and confirm ideas</i>	<ul style="list-style-type: none"> Monitoring and evaluation / Financial management / Managing-Aligning with OPs 	<ul style="list-style-type: none"> - Start-ups and SMEs - Better access to local innovators - Identification of local needs (business view) - Complementary funding - Monitoring & follow-up 	<ul style="list-style-type: none"> - New opportunities for innovation - Increase know-how - EU level networks - Complementary funding
RESEARCH & INNOVATION	<i>Scaling up</i>	<i>Scaler – pooling collective knowledge</i>	<ul style="list-style-type: none"> Monitoring and evaluation / Financial management / Managing-Aligning with OPs / TSSPs 	<ul style="list-style-type: none"> - Start-ups and SMEs - Business - Better access to local innovators - Identification of local needs (business view) - Accessing EU level international partnerships - Complementary funding - Monitoring & follow-up 	<ul style="list-style-type: none"> - New opportunities for innovation - Increase know-how - EU level networks/ internationalisation - Complementary funding - Socio-economic impact
	<i>Capitalisation of projects / Access to market</i>	<i>Knowledge development – capitalise projects</i>	<ul style="list-style-type: none"> Monitoring and evaluation / Financial management / Aligning with Ops / TSSPs 	<ul style="list-style-type: none"> - HEIs & PROs - Start-ups and SMEs - Business - Governmental organisations - Cities - Individuals - NCPs & H2020 stakeholders - Better access to local innovators - Identification of local needs (business view) - Access to investment funds - Long-term investment & follow-up - Involvement in regional policy-making (via EDP) 	<ul style="list-style-type: none"> - Increase know-how - EU level networks/ internationalisation - New collaboration opportunities - Complementary funding - Employment opportunities - Socio-economic impact

(1) Compiled from the EIT KICs' and S3P webpages and relevant informative documents.

Entrepreneurship is evidently a common area where similar activities and objectives exist. MAs can make particular use of the experience of EIT and its KICs in supporting innovative ideas to capitalise or scale up the innovative companies, in developing an entrepreneurial culture through the provision of tailored services and assistance to individuals and organisations, and in fostering international collaboration. ESIF MAs from their side can encourage their networks to capitalise on innovative investments initiated by EIT KICs and support EIT KICs regarding financial management.

In addition to these complementary supports, the EIT KICs can contribute to capacity building in European countries and regions for R&I activities, including enhancing their research bases, providing expert assistance, improving human resources and skills, and increasing educational and institutional capacities. In other respects, the ESIF MAs can offer support for allowing efficient use of local capacity, better definition of local needs, enhancing bottom-up approaches and improvement of know-how, as well as mapping and monitoring of joint activities/impacts.

Within a large spectrum of support and benefits these communities can offer and receive, in general terms, there are two novel features that can foster each side's activities and achievements. On the one hand, EIT KICs can significantly help the RIS3 implementation bodies to better involve entrepreneurs in their activities (starting from the EDP to innovative investments especially under TO1); on the other hand, RIS3 can open a new perspective and provide a wide range of opportunities to the EIT KICs in terms of enhancing the bottom-up approach and ensuring ESIF for projects and activities of mutual interest and priorities. This can increase the participation of local innovators and companies in the EIT KIC activities and additionally provide internationalisation opportunities and access to global value chains through the KIC's network of partners across Europe, as well as through other EU instruments like Thematic Smart Specialisation Platforms.

3.3 Types of Collaboration Modes

The previous sections presented the current state of play as well potential collaboration opportunities between the EIT Community, public authorities of the Member States, regions, cities and even individuals. The latter have been summarised in table 6. In this framework and by taking into account that RIS3 actors and EIT KICs operate on the basis of a similar working model (Quadruple Helix versus Knowledge Triangle Integration) but in different contexts, there is a variety of possible modes for collaborative work. This section identifies the different possible collaboration modes between RIS3 and EIT, by i) presenting existing examples and ii) proposing additional options.

To allow a better distinction between types of collaboration modes, we follow the taxonomy developed in the JRC Technical Report on the Joint Undertakings (Haegeman et al., 2019), where collaboration modes are divided into two levels,

1. **Strategic level:** refers to the general set-up that identifies the conditions for the collaboration between the EU instrument (herein the EIT or the EIT KICs) and the public authorities
2. **Operational level:** refers to the concrete ways to operationalise the collaboration. This can be financial (where funding is also managed by more than one organisation in a collaborative way) or non-financial.

The tables below provide some examples of strategic and operational collaborations that have already taken place between the EIT Community and RIS3 implementation bodies. Both tables explicitly show that existing opportunities in establishing strategic and operational levels of collaboration have not been exploited adequately. However, there are significant examples that give clear insights for future collaborations.

Table 7.A. Examples of existing strategic modes of collaboration between EIT and RIS3 actors

Collaboration mode	Description	Examples
Official Agreements (e.g. Individual Memorandum of Understanding (MoU), Collective MoU, Collaboration Agreements, etc.)	<ul style="list-style-type: none"> - Mutual commitment to support the use of ESIF and EIT resources in a complementary way in specific fields - MoU between an ESIF MA of a region/MS or municipality/city and an EIT KIC - MoU between either group of EIT KICs or a region or a group of regions with an EIT KIC 	<ul style="list-style-type: none"> - MoU between EIT & JRC, with possible synergies between the EIT Community and RIS3 implementation bodies among priority areas - Collaboration agreement between EIT Climate-KIC and JRC & MoU between EIT InnoEnergy and JRC - MoU between EIT InnoEnergy and Ministry of Economics of Latvia - MoU between EIT InnoEnergy and Ministry of Energy of Lithuania - MoU between EIT Climate KIC, EIT RawMaterials and Slovenian ministries and national authorities responsible for RIS3 (see Box 1)
Strategic alignment	<ul style="list-style-type: none"> - EIT encouraging and facilitating synergies through strategic guidance - Development of the individual EIT KIC strategies on EIT RIS with emphasis on alignment with RIS3 	<ul style="list-style-type: none"> - Guidance Note on EIT RIS implementation and strategic collaboration with JRC - All existing EIT KICs - already developed 3-year EIT RIS strategies (2018-2020)
Strategic Documents	<ul style="list-style-type: none"> - Formally encouraging different EU initiatives to enable synergies under the Cohesion Policy - Making collaboration with EIT KICs official part of the countries national and regional strategies. 	<ul style="list-style-type: none"> - The European Commission proposal for Horizon Europe, of which EIT is a part, encourages synergies with national authorities and RIS3 implementation bodies - The EC proposal for the EIT Strategic Innovation Agenda 2021-2027 prioritises synergies with ESIF and MAs - National and regional authorities having dedicated sections on synergies with the EIT KICs in the strategic documents (e.g. Slovenia, Latvia and Romania)

One of the most common strategic collaboration modes is the individual Memorandum of Understanding (MoU), which is currently applied between the EIT and its KICs and a range of public authorities (see for example the case of Decarbonising Slovenia in Box 1). Similar formal and informal approaches are also applied in different formats by identifying the mutual commitments and interests (table 7.A).

In terms of the operational modes of collaboration, the existing spectrum of activities took place in a limited number of areas within a large spectrum of opportunities. These examples might range from co-funding of projects to joint use of infrastructure or increasing capacity by means of tailor-made trainings (Table 7.B).

Table 7.B. Examples of existing operational modes of collaboration between EIT and RIS3 actors

Collaboration mode	Description	Examples of EIT and Its KICs
Advice to policy implementation	Supporting national authorities in implementation of national policies	- EIT Climate-KIC supporting the Ministry of Environment in Greece and the Ministry of Economy of the Republic of Bulgaria in integrating the Circular Economy National Strategy into the country's smart specialisation strategy, through its local EIT Hubs.
ESIF for additional innovation activities under the topics of the EIT KICs	Regional projects co-funded by ESIF and/or used in the context of EIT KIC-funded projects	- EIT Climate-KIC: 1) Panke Optimization project of Technische Universität Berlin (EIT KIC partner) co-funded 2) Dezentrale Reinigung von Strassenabflüssen (ESIF funded project) provided insights to the Blue Green Dream project of EIT Climate-KIC
Use of ESIF-funded infrastructure from EIT Community (EIT KICs and their partners)	Joint use of the infrastructure (particularly the ones funded by EU public resources)	- EIT Digital (VentureLab Twente project of Twente University (EIT KIC partner) using an ESIF funded incubator to host start-ups supported by EIT Digital) - EIT InnoEnergy and EIT Climate-KIC (activities implemented through CleanTech Bulgaria, their local EIT Hub, based in Sofia Tech Park, an ERDF funded project)
Trainings	Trainings for Governmental officials provided by EIT KICs, funded by EIT RIS	- EIT Food - Governmental Officials Executive Academy - EIT InnoEnergy provided training sessions and knowledge sharing services to Regional MA Malopolska, Poland and governmental venture capital HiVentures in Hungary
Basic informal collaboration through joint actions (e.g. awareness raising and matchmaking)	- Raising awareness on EIT within the RIS3 implementation bodies - Regional actors involved in the EIT KICs (a cluster, a company, RTO, etc.) - Developing direct informal operational collaboration activities with the EIT KICs	- EIT's participation in RIS3 stocktaking events - EIT Climate-KIC's matchmaking event with MAs facilitated by JRC - Joint publication of JRC and EIT KICs (Climate-KIC, InnoEnergy and RawMaterials) on the "Policy-driven co-creation workshops" to facilitate design and implementation of participatory exercises - EIT Food - Governmental Officials Executive Academy - EIT and its KICs' support to RIS3 related events

Box 1 and 2 demonstrate how respectively EIT KIC business programmes and RIS3 implementation tools can support territories with lower innovation capacity in a complementary way. In the EIT RIS countries, in particular the lack of business maturity has been identified as a common barrier, and the EIT KICs approached the issue by developing *business creation and pre-acceleration programmes* tailored to the needs of local ecosystems and adjusted to the specific KIC area (theme) (Box 2).

Box 1. Collaboration through official agreements: Decarbonising Slovenia

A strategic collaboration between EIT Climate KIC and EIT RawMaterials KIC and the Slovenian government around circular, regenerative and low-carbon economy supports the implementation of RIS3 and of the national vision to become a green, creative and smart country by 2030. Slovenia has decided to focus strategic economic development around circular, regenerative and low-carbon economy and to bet on sustainable technologies and services. In practice, following the JRC support activities in Slovenia, the Slovenian national authorities engaged into an unprecedented cross-sectoral and cross-disciplinary approach with a three-year (2019-2021) implementation process. The pilot initiative, which was adopted by the Slovenian government Early November, comprises the government and its Ministries, EIT Climate KIC, EIT Raw Materials KIC, and the JRC. It encompasses the evolution of all economic sectors into transition activities towards sustainable, innovation-driven circular economy. Socio-economic development is fed by innovation from the national Smart Specialisation priorities and the commitments are being made by all the parts of government and the broader society to embark on the sustainable development path, notably its environmental aspect.

At the same time the pilot initiative helps in addressing some of the structural issues referred to in the Slovenian European Semester Country report. Key issues include the R&D intensity, the level of science-business cooperation, the level of internationalisation, governance and coordination, attracting foreign and domestic talents, and the degree of business support. The Pilot Initiative includes elements that help in tackling most of those issues, in the context of creating a circular economy. The pilot also has potential to test the implementation of a collaboration with high relevance for making the Green Deal a reality. The initiative is supported by several bilateral MoUs between the partners involved. JRC supports the efficient implementation of multi-level governance and conceptualisation of lessons learnt to disseminate them beyond national borders.

Box 2. Addressing common issues of territories with limited innovation capacity through EIT KIC business programmes

One of the overarching gaps identified by EIT KICs, is the lower business maturity of young entrepreneurs in the EIT RIS countries. Hence, several EIT KICs have developed business creation/acceleration programmes tailored to the needs of the EIT RIS countries. For instance;

◇ EIT Climate-KIC runs its EIT RIS accelerator, focused upon getting early stage startups ready for their first investors and customers and helps them scale their business. The KIC also runs the EIT RIS Pioneers programme (professional mobility) already for the third year in a row.

◇ EIT Digital launched its ARISE Venture Programme in 2018 to address the Eastern and Western Balkans. The programme, a two-stage competition, supports the establishment of deep-tech-based ventures. After a competitive selection process, 15 teams were selected to join programme, which included a two-day bootcamp followed by a six-week pre-acceleration phase. Teams that managed to incorporate their ventures and advance in their MVP had the chance to apply for the Final Prize. By these means, the Venture Program supported the creation of 13 new ventures in 2018.

◇ EIT InnoEnergy together with EIT InnoEnergy Hubs is piloting in 2019 its Primer programme. The overall goal of the Primer is to increase the quality of energy-related start-ups in Europe and set a new, unified standard in terms of early stage acceleration. Ultimately, start-ups who have successfully graduated from the programme are prepared to enter EIT InnoEnergy's European Highway accelerator.

◇ EIT Health, EIT Raw Materials and EIT Food jointly launch the EIT JumpStarter Competition to improve cross-sectoral innovation performance in EIT RIS eligible countries. The JumpStarter is an innovation contest aiming to reach out, identify and support the best ideas from researchers, professionals and early-stage start-ups, by bringing business ideas out of a 2-day Bootcamp (taking place in 6 different locations) closer to commercialised products. During the training, participants learn how to get started on building a business in a unique cross-industry environment: building a team, business processes and organisational design. The primary focus is on quantitative business model building. At the end of the program, graduates prepare their pitch deck, business model canvas, competitive landscape, go-to-market strategy and roadmap. The winners receive a small financial prize and get the opportunity to network with the EIT Community.

**The EIT JumpStarter won the Best Association Training Initiative Award of the European Association Awards 2019*

Similarly, among the wide set of tailored RIS3 support tools⁴⁶ for less developed territories, Box 3 presents those tools that focus in particular on business creation. Activities like The *EIT JumpStarter*⁴⁷, a cross-KIC capacity-building activity which won the "Best Association Training Initiative Award"⁴⁸ of the European Association Awards in 2019, and the tailored ideation and project development approach developed by the *RIS3 in Lagging Regions* and *Stairway to Excellence* projects, can be adapted to the needs of different stakeholders and regions and can increase the contribution of EIT KICs and RIS3 implementation practices to solving critical issues of educational and innovative activities. Similarly, business ideas originating from an EDP focus group are often not or only partially fundable through ERDF but could be supported through the business creation or acceleration programmes of EIT KICs.

Box 3. Addressing common issues of territories with limited innovation capacity through RIS3 implementation tools

A wide set of support tools⁴⁹ exist that are tailored to RIS3 implementation in less developed territories. We draw here particular attention to those that focus on supporting the business environment.

◇ Entrepreneurial Discovery Process (EDP)⁵⁰ focus groups for less developed territories are targeted stakeholder events with a sectoral focus, aimed at generating innovative ideas through the interaction between business, public and research actors. The collaborative method goes beyond ideation and helps create a momentum, supports a culture of collaboration and helps to build trust between all actors and potential partners. It was first tested in the Greek region of Eastern Macedonia and Thrace (Boden et al, 2015) and has now been applied in a wide number of countries and regions across and outside the EU.

◇ Project Development Labs (PDL) aim to further develop business ideas initiated in an EDP focus group, in terms of fundability, partnerships (regional, national, international), linkages with international value chains⁵¹, framework conditions, etc. and to design concrete action plans for policy to support them (Boden et al, 2016). The labs can also be combined with online assessment of ideas⁵² for coalition building. The labs help strengthening the communities around ideas, increase coordination between the regional and national levels, and clarify technicalities (such as state aid rules, fundability of ideas and coherence with national strategy).

◇ Analysis of ICT capacities in traditional sectors (Emmanouilidis, 2015): In view of optimising the use of ICTs in the implementation of the RIS3 in Eastern Macedonia and Thrace, an ex-ante assessment of potential ICT-enablers in each RIS3 priority area was conducted, with a particular focus on potential ICT contributions along the whole value chain. More detailed analysis on non-metallic minerals was also carried out at the level of specific business ideas and potential calls, how ICT expertise could best be integrated, as well as examination of funding possibilities.

◇ Collaborative Case Studies⁵³: explore opportunities offered by the different funding streams for concrete business ideas, identify potential extensions to the original ideas, relevant international networks and project consortia that can further inform idea development. The case studies effectively seek to increase internationalisation and collaboration within the RIS3 framework (Boden et al, 2016).

⁴⁶ In the context of RIS3 implementation, customised approaches have been developed in the last few years to address weaknesses in territories with lower innovation capacity. These tools were tested and developed within EU Member States and regions with support from the *RIS3 in Lagging Regions* project and the *Stairway to Excellence* project.

⁴⁷ <https://eit.europa.eu/newsroom/apply-now-eit-jumpstarter>

⁴⁸ The main reason for the award relates to the efficient identification and support of best ideas from researchers, young professionals and start-ups (<https://europeanassociationawards.com/>).

⁴⁹ Examples of other tools include a Governance Working Group, a Mobility Working Group, a Board of Critical Friends, etc. (Boden et al, 2016).

⁵⁰ Santini et al. (2016)

⁵¹ An example is the [International Development Lab on the valorisation of endogenous resources in the wine value chain](#), Centro region (PT), 2018.

⁵² For an example of online assessment in Eastern Macedonia and Thrace, see: <https://s3platform.jrc.ec.europa.eu/ideas-for-pdl2>.

⁵³ <https://s3platform.jrc.ec.europa.eu/case-studies>

Possible future collaboration opportunities between EIT and RIS3 are listed in tables 8.A and 8.B corresponding to strategic and operational modes respectively. The activities at strategic level can go beyond the development of official agreements and can be enhanced by mutually committed exercises; e.g. alignment of priorities and strategic implementation documents and developing links between the EIT KICs and national and regional ESIF MAs. In addition, activities increasing the awareness of collaboration opportunities and joint working groups and other joint activities can facilitate establishing efficient collaborations.

Table 8.A. Options for strategic modes of collaboration between EIT Community and RIS3 implementation bodies

Collaboration mode	Description
Strategic alignment	<ul style="list-style-type: none"> - EIT KICs can align their priorities with RIS3 at local/regional level, including EIT RIS countries and regions - MAs can proactively approach the EIT KICs from early stage of design of activities/strategies - Mutual focus to jointly identify needs, align resources and strength activities and projects that contribute to the objectives of RIS3, EIT and its KICs - Activities aiming at connecting EIT KICs' activities and national/regional OPs in close coordination with MAs and EIT KICs' partners, including coordination in EDP
Further develop links between EIT KICs and public innovation support bodies	<ul style="list-style-type: none"> - Articulating the EIT's innovation model to national authorities and policy making, as well as EDP (building a culture of co-creation and co-development) - Sharing good practices and methodologies from the EIT Community (e.g. legal frameworks, standardisation, selection criteria and methodology assessment, public procurement, design of targeted support programmes etc.) and from the RIS3 actors (EDP, PDL, online stakeholder engagement for idea prioritisation/partnership formation/idea development, Mobility Working Group, Governance Working Group, etc.⁵⁴) - Mutual support in better understanding the potential of the local ecosystems and provide suggestions of the 'auxiliary' industries that help boost the areas of specialisation; access to EIT KICs' expertise in cutting-edge areas, including identification of the required criteria for sustainable, high quality projects
Joint working groups at regional or interregional level	<ul style="list-style-type: none"> - General and thematic working groups at regional or interregional level involving RIS3 actors and the EIT and/or EIT KICs
Agreements and strategic alignment with more partners and more critical mass	<ul style="list-style-type: none"> - Formal or informal agreements that support alignment between national and regional RIS3 implementation bodies of a MS, and one, several or even all EIT KICs - Agreements between interregional S3 partnerships and EIT KICs - Agreements involving also other EU initiatives such as Joint Undertakings, etc.
Implementation of OPs	<ul style="list-style-type: none"> - EIT KICs and their CLCs can be defined as intermediate bodies facilitating the implementing of Operational Programmes (Ops). MAs can also engage with EIT KICs for design and/or implementation of the OPs.

⁵⁴ See Boden et al. (2016).

Table 8.B. Options for operational modes of collaboration between EIT Community and RIS3 implementation bodies

Collaboration mode	Description
Promoting innovation at local level	<ul style="list-style-type: none"> - Supporting ideation and incubation of innovative ideas by using successful examples of EIT KICs' programmes and RIS3 EDP outcomes - Use of ESIF supported incubation and technology park infrastructure by EIT KIC-supported entrepreneurs and start-ups - Transfer of know-how on research commercialisation from EIT KICs' to TTOs and researchers
Tailored assistance to business	<ul style="list-style-type: none"> - Pilots to increase the quality of start-ups and to set unified standards in the early stage of acceleration, through the EIT KICs pre-acceleration and acceleration programmes and ESIF calls
Trainings / Entrepreneurial Education and Skills	<ul style="list-style-type: none"> - Trainings for Governmental officials in collaboration with MAs and other organisation in charge of RIS3 provided by EIT KICs, also on key topics (i.e. climate, energy, health etc.) - Transfer of know-how through tailor made training programmes based on identified needs (e.g. business developers, innovation managers etc.) - Using the EIT Label Methodology⁵⁵ in creating innovative educational programmes: MAs can create financial instruments/programmes for relevant stakeholders (e.g. universities, education, business and industry) in order to steer their active cooperation) - Scholarships co-funded by ESIF-EIT for student or professional participation in EIT's Educational Programmes - Promotion of ESIF support for regional development of skills, infrastructure or other capacities in preparation of planned participation of EIT and its KICs.
Funding synergies for deployment	<ul style="list-style-type: none"> - Use of the network across Europe in promoting and deploying research/technological projects, co-funded by EIT and ESIF resources.
Awareness raising and funding guidance	<ul style="list-style-type: none"> - Regions engaging with EIT to raise awareness about collaboration opportunities to both public and private organisations - EIT KICs engaging with regions to promote participation of regional actors (e.g. business, universities) in the EIT Community activities - Joint matchmaking events for RIS3 and EIT KIC actors (e.g. SMEs, EIT KIC partners, technology parks etc.) - Awareness raising events for RIS3 'NCPs' and other multipliers to inform about ways to collect and disseminate funding opportunities aiming to optimise synergies between funding from different sources
ESIF for high quality proposals	<ul style="list-style-type: none"> - Highly ranked proposals as a result of an EIT KICs' call can be supported with ESIF, either through the use of a <i>Seal of excellence</i> style synergy label or on case by case basis. Also, an agreement between MAs and EIT KICs at CLC level could lead to joint calls for projects, co-funded by a virtual common pot. Similarly, an early alignment between the two sides could lead to the implementation of projects of complementary nature that can serve the objectives and needs of both RIS3 implementation bodies and EIT KIC(s) respectively.

⁵⁵ The [EIT Label](#) is a certificate of quality that is awarded only to excellent educational programmes developed by the EIT KICs and their partner Universities. These programmes are focused on innovation, entrepreneurship, creativity and leadership and are based on the knowledge triangle paradigm - the integration of business, education and research.

Joint projects at regional or interregional level	- Interregional working groups to connect actors across regions and sectors in collaboration with the EIT KICs and their CLCs or EIT Hubs and potentially lead to the co-design and co-funding of regional/interregional projects
Support business maturity	- In support of territories with lower innovation capacity, both EIT KIC business programmes and tailored RIS3 implementation tools can help increasing business maturity in a complementary way (see Box 2 and Box 3).

Table 8.B shows possible activities for operational modes of collaboration. This can involve activities like capacity building, deployment of research projects and support for close-to-market activities. Notably, funding-related synergies are particularly connected to ESIF inasmuch as it is a common resource especially for the R&I investments of MSs. As many high-quality research results have not carried out the next stage owing to financial inadequacies, ESIF would be considered as a primary instrument to overcome this obstacle. Thus, these collaboration exercises can help the EIT Community and RIS3 implementation bodies not only to pool their expertise but also to use their individual resources in an efficient way.

The future modes of collaboration will be closely related to post-2020 regulations and procedures of ESIF. Following the summary document of the "ERDF and Cohesion Fund 2021-2027"⁵⁶ published by the European Parliament, the particular support to enable synergies between the EU funds and programmes will continue with special emphasis on the goal of reducing regional disparities. In addition, these funds are aimed to contribute to broad policy objectives; primarily, the establishment of smarter and greener Europe – where ERDF will be concentrated on Policy Objectives (POs)⁵⁷ one and two – as well as other objectives in relation to *"growth and competitiveness, research and innovation, digitalisation, industrial transition, SMEs, transport, climate change mitigation and adaptation, environmental sustainability and energy transition, employment, social inclusion, gender equality, poverty reduction, and demographic challenges"* (pp. 3). Furthermore, thematic concentration, better communication, maintaining support in key areas with high value added and particular synergy with Horizon Europe were underlined by the European Parliament and the Council of the European Union.

In this context, both the EIT Community and RIS3 implementation bodies seem to have good opportunities to develop new modes of collaborations in the post-2020 period. ERDF will be applicable for capacity building in terms of innovation activities, deployment of R&I projects, concentrated investments in smart and green economy with particular supports to infrastructure investments, SMEs and ICT studies. These fields can offer opportunities for a closer collaboration between EIT KICs and national and regional authorities. ERDF will also be available for networking, cooperation, exchange of experience and technical assistance, which can create a significant resource for MAs to enhance their collaborative activities.

⁵⁶ BRIEFING: "EU Legislation in Progress 2021-2027 MFF: European Regional Development Fund and Cohesion Fund 2021-2027", European Parliamentary Research Service (EPRS), Jan 2019, available at [http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/625141/EPRS_BRI\(2018\)625141_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/625141/EPRS_BRI(2018)625141_EN.pdf)

⁵⁷ The 11 thematic objectives of current programming period will be reduced to 5 Policy Objectives (POs): (1) a smarter Europe, (2) a greener Europe, (3) a more connected Europe, (4) a more social Europe, and (5) Europe closer to citizens. Member States will invest 65% to 85% of their allocations under the two funds to these priorities, depending on their relative wealth. Also see http://europa.eu/rapid/press-release_MEMO-18-3866_en.htm

3.4 Success Factors and Alternative Options to Increase the Collaboration between the EIT Community and ESIF Managing Authorities

The sections below look at respectively the critical success factors and alternative options to increase the collaboration between EIT Community and ESIF Managing Authorities.

3.4.1 Lessons from an Event: Success Factors for Collaboration

There are significant barriers and bottlenecks that can limit the exploitation of collaboration opportunities between EIT KICs and RIS3 implementation bodies and ESIF MAs. In order to demonstrate these barriers, this section presents information provided by several ESIF MAs (from Bulgaria, Estonia, Italy, Latvia, Portugal and Slovenia) and a RIS3 implementation body (from Serbia) in a joint match-making event⁵⁸ organised by Stairway to Excellence (S2E) and EIT Climate-KIC. This section reports from discussions during this event, with a focus on activities from MAs particularly under the Thematic Objective 1 (TO1), in relation to their limited participation in the EIT KIC activities with focus on EIT RIS. The critical factors raised during the joint event are briefly summarised below (also see [Working Document](#) of this event).

- Collaborative activities aiming at the creation of knowledge and achieving innovation require a shift from *silo* thinking to *joint perspective* and *common understanding*, as well as *shared vision between main actors*. They are also connected to the establishment of *mutual trust* and an *ownership of the activities* accepted by each component of the collaboration. Gomes et al. (2016) states that a low level of collaboration is commonly identified at early stages, where there is a lack of ability of the actors to build shared/common understanding. A lack of common understanding also makes it difficult to establish trust between collaborators, which is clearly a critical issue to undertake collaborative activities.
- The *smart specialisation approach* can facilitate achieving such common understanding as it aligns different efforts based on well-founded consensus nourished by the participatory EDP processes. Hence, *governance of the smart specialisation and R&I activities* turns into one of the most important critical success factors. In this context, governance is not only considered in terms of administration and management issues. It is also associated with a strategic dimension e.g. *a long-term planning with a shared vision and political commitment*.
- Lastly, it should be noted that *management of funding programmes* is commonly identified by the MAs as a critical success factor. The issue of funding management is closely related to the *quality of public administration* where the development of an *innovative public procurement system* and simplification of *state aid procedures* can be critical to scale up collaborations.

3.4.2 Options to Establish and Increase Collaboration

This section looks at options for actors involved to address them in order to develop or increase collaboration between regional authorities and EIT KICs. They aim to help stakeholders of EIT and RIS3 to better understand each other's activities and thus identify further steps for collaboration. The options proposed are not meant as a blueprint but should be considered within the particular EIT KIC's thematic context and each region's characteristics. Possible options for both MAs and for EIT Community, as well as the common ones, are summarised below.

⁵⁸ More information on this event and its outcomes (including the follow-up Working Document) are available at <http://s3platform.jrc.ec.europa.eu/-/exploring-collaboration-opportunities-and-synergies-between-research-and-innovation-strategies-for-smart-specialisation-ris3-and-eit-climate-kic-under>

3.4.2.1 Options for Managing Authorities (MAs) Interested to Engage with EIT KICs

Developing a regional outreach strategy:

EIT launched an outreach scheme, EIT RIS, which has evidently provided more collaboration opportunities for regional stakeholders. Similarly, if a region develops an outreach strategy where it also positions itself in a certain field and stays open towards other innovation actors of this field, this strategy can help establishing trust and openness towards stakeholders in and outside the region. It could be expected that the impact of these types of strategies would gradually increase over time as trust and openness, beside their critical role for collaborations, fade into significance over time. Also, it can significantly contribute to the visibility of the regional innovation activities. Consequently, such strategy could be open not only for regional actors, but also for other European initiatives (like EIT KICs, JUs, PPPs, ERA-NETs etc.) and national and international actors.

The following proposed options can also be integrated as components in such an outreach strategy.

Analysis of thematic priorities:

Analysing the possible links between regional R&I priorities and EIT KICs' themes (and focus areas) is one of the initial steps for any kind of collaboration of innovation activities in order to clarify relevant activities that can be undertaken jointly and/or complementarily. To this end MAs can expand on their RIS3 and identify actions that can be covered by an individual EIT KIC. A joint mapping exercise would help towards this direction.

EIT RIS offers plenty of collaboration opportunities for MAs. Therefore, MAs can benefit from exploring and exploiting these opportunities in the context of their own priorities. Moreover, this exercise could go beyond the EIT RIS context and look at opportunities across the entire EIT KICs activities (including from the CLCs). In other words, there is potential in analysing priorities and opportunities in detail in relation to RIS3 and the EIT KICs.

Improving the willingness of regional actors for engaging in joint activities:

A self-analysis of the needs and priorities of the region is important to build collaboration, but it can also be needed to improve the interest and willingness of the actors in the R&I areas to engage in joint activities. This can also turn into the establishment of a shared vision and long-term planning.

Identification of the TRL scale of the projects funded by the different EIT KICs:

The EIT KICs support a large spectrum of activities in different fields from capacity building to commercialisation. In this context, it would be beneficial if regions identify the type of support missing for their activities. Such needs can be fulfilled with a special support/assistance provided by the EIT KICs. One of the efficient ways to identify the type of activities and support is to use of the Technology Readiness Level (TRL)⁵⁹ that is also used for H2020-supported projects. Identifying the TRL level of prospective projects and using it for example as one of the selection criteria for the EIT KIC supported innovations, can be one of the ways to determine the type of support and funding needed to progress these projects. Additionally, this would facilitate identification of the support required for the following stages of the innovation process.

⁵⁹ For the basic description of TRL, please see https://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-g-trl_en.pdf

Considering the level of involvement in case of participating in an EIT KIC:

It is useful for MAs to explore the level of engagement envisaged with the EIT KICs, based on their own strategy and links with the respective EIT KIC priorities. This engagement could range from becoming a member of the EIT KIC partnership, to having a strategic collaboration with the EIT KIC on specific actions or even acting as a facilitator for the enhanced involvement of local innovation actors in the EIT KICs' activities.

Organising/Attending inter-regional events to expand the professional network of contacts, not only with different stakeholders but also with different regions:

It is valuable to bring together different stakeholders and increase the probability to develop joint actions. In addition, it is also useful to get in touch with other regions and organisations that may have similar priorities, problems and/or complementary activities. The EIT Community is an example of interregional cooperation, both at the KIC and cross-KICs level. Joining forces with regions in this context and enlarging the scale of activities can create win-win situations for corporate entities.

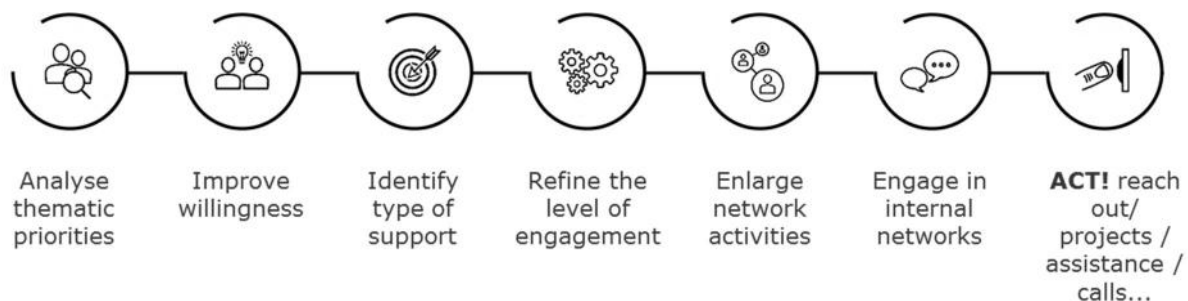
Engaging in international networks:

Access to international networks is important for positioning the regional activities in international R&I areas, as well as for creating more impact by means of international value chains. The EIT Community through its European network of over 1000 partners across Europe and strategic partners beyond Europe can provide much-needed access to global value chains. In addition, three Thematic Smart Specialisation Platforms (on agri-food, energy and industrial modernisation) group thematic interregional partnerships with access to international value chains, with the involvement of regions, national authorities, universities and business across Europe. Public authorities could take full advantage of both networking opportunities and combine them.

Contact the EIT Community:

EIT and its KICs have been established to enhance innovation capacity in Europe by bringing together the main actors of the knowledge triangle: research, academia and business. Therefore, the EIT Community, by definition, is open to disseminate its knowledge and know-how and facilitate collaboration between innovation actors. Consulting with the EIT Community can facilitate and enrich each activity, from designing the guidelines to co-funding the projects. There are more than 50 CLCs⁶⁰ and over 60 EIT Hubs⁶¹ across Europe that could be reached for this purpose.

Figure 6.A. Possible pathway for MAs to engage in the EIT KICs



⁶⁰ <https://eit.europa.eu/our-communities/map>

⁶¹ <https://eit.europa.eu/our-activities/outreach/eit-regional-innovation-scheme-ris>

3.4.2.2 Options for the EIT Community interested to cooperate with Managing Authorities (MAs)

A strategic approach towards national and regional Managing Authorities:

Synergies with ESIF and enhanced connections between academia, business and regional innovation require close coordination with regional and national smart specialisation strategies and, of course, the Managing Authorities, decision-making and RIS3 implementing bodies. However, the activities implemented by the EIT KICs at CLC level are strongly focused on knowledge triangle actors (i.e. research, academia, business) as this is considered to be the main target group. Similarly, EIT RIS activities focus on the same target group of innovation actors in countries and regions that are relatively less-developed in terms of R&I capacity. In both cases there is clearly a need for a more targeted approach towards national and regional authorities and in particular ESIF MAs, especially in the context of possible synergies with ESIF, both from the EIT itself, as well as from its KICs. These could include: considering MAs as priority stakeholders in their strategies and proactively engaging them; developing mechanisms for regions to access technical assistance provided by the EIT KICs; encouraging and incentivising more opportunities to foster inter-regional activities in collaboration with MAs (EIT and KIC levels); and offering mechanisms to enhance collaborations with more than one EIT KIC, as well as other European initiatives and platforms.

Exploring and mapping territorial stakeholders, priorities and competencies matching the EIT KICs' strategic agendas:

There is still a need for the EIT Community to comprehend to a greater extent the priorities, competencies and main stakeholders related to RIS3. This can allow each EIT KIC to better focus on the targeted activities, responding to local needs and therefore create impact.

JRC provides an online tool to identify S3 priorities and offers information on public innovative investment priorities by regions across Europe. The tool is called [Eye@RIS3](#) and could be useful to facilitate the mapping analysis. The priorities in the tool are classified by economic and scientific domains, and provide another opportunity to align the EIT KICs' activities with the thematic S3 platforms ([Agri-Food](#), [Energy](#) and [Industrial Modernisation](#)), aimed to foster interregional cooperation based on matching smart specialisation priorities related to these thematic domains.

From the EIT side, the CLCs of the EIT KICs, as well the EIT RIS collaborating entities acting as EIT Hubs, can facilitate these mapping exercises. Furthermore, the strategic collaboration between JRC and EIT provides a basis for mutual exchange of information and knowledge.

Dedicated sections for the beneficiaries of ESIF under EIT KIC's calls:

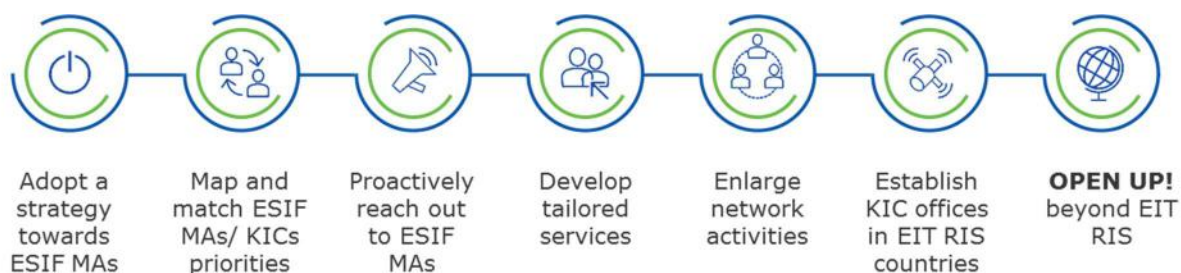
A specific reference to ESIF beneficiaries could be embedded into the various calls of EIT KICs, for example on innovation projects or entrepreneurship/business support opportunities. This can facilitate alignment of the activities supported by ESIF and prospective projects that can be supported by the EIT resources. Recognising these activities at an initial stage of the project would also facilitate monitoring them and avoiding duplication.

Setting up EIT KIC Co-Location Centres in EIT RIS eligible countries:

The EIT KICs could consider extending their network of Co-Location Centres in EIT RIS eligible countries as a way to further opening up their activities to countries that are lagging in terms of innovation performance. This could build on the experience of existing EIT Hubs, and CLC establishment could take place in coordination with national

authorities and support co-funding of ESIF. Furthermore, the activities of the respective CLCs could be a product of the co-design and co-funding of both EIT KICs and MAs, in the benefit of local innovation actors and the ecosystem as a whole.

Figure 6.B. Possible pathway for the EIT KICs to engage with MAs



3.4.2.3 Options for Managing Authorities (MAs) and the EIT Community

Organisation of match-making initiatives leading to joint projects:

There is a clear need to organise more matchmaking events. A one-day workshop organised by the EIT Climate-KIC and S2E was already sufficient to bring hundreds of project ideas into the agenda. Moreover, follow-up interactions showed that these project ideas are applicable and make larger communities involved in the research or innovation phases in the latter stages⁶². Matchmaking activities are efficient mechanisms to bring together different stakeholders and increase the probability to develop joint actions. They can also be a key activity to enhance networking activities and access new collaboration partners.

The EIT KICs, either individually or at cross-KIC level, should consider organising matchmaking events as a way to explore opportunities for more joint actions with MAs and their actors. The S2E project could facilitate such efforts as it has both the expertise and contacts with MAs and EIT KICs.

Identification of territorial and EU wide research infrastructures:

Following a couple of programming periods where the significant amounts of European Structural Funds and national resources have been invested in research infrastructures, there are plenty of regions having high-level capacity in this area. The mapping of these research infrastructures in the EIT KICs' related fields can help to exploit this capacity efficiently. Also, this exercise can be particularly beneficial for those regions that are relatively less developed in terms of R&I capacity as the existing infrastructures in such regions sometimes lack the experience and resources to connect them with wider European networks. Support from the EIT KICs could come in different ways, from utilisation of the infrastructure from the EIT KIC network and supported innovators and entrepreneurs, to the transfer of know-how on the management of the infrastructure (e.g. trainings, advisory services, sharing relevant tools and methodologies developed within the KIC) etc. There are also initiatives promoted by DG RTD for mapping international and European research infrastructures, including [RISCAPE website](#) and [MERIL website](#), as well as the [Digital Innovation Hub](#), an online catalogue tool provided by S3P.

⁶² See the event page for more details: <http://s3platform.jrc.ec.europa.eu/-/exploring-collaboration-opportunities-and-synergies-between-research-and-innovation-strategies-for-smart-specialisation-ris3-and-eit-climate-kic-under>

Building critical mass in collaboration between EIT KICs / Regions / RIS3 Implementation Bodies:

Regions have various priority areas and may therefore consider seeking collaboration across different thematic areas. On the EIT side, the maturity levels of EIT KICs are different and some of them can be more advanced in terms of particular support, e.g. education, specific technical assistance, networking in specific domains etc. Therefore, the EIT KICs in collaboration with each other, by means of cross-KICs activities, can better address a region's needs and bring greater impact. EIT's role in encouraging and facilitating cross-KIC collaboration in this context is important. Moreover, local authorities in charge of the implementation of RIS3 could share their experiences and fulfil each other's needs by means of thematic activities at interregional projects. Collaboration through engaging several EIT KICs (cross-KIC activities) and wider sets of regions or countries, either through involving interregional partnerships or through grouping of countries and regions with common interest, can significantly increase the impact of R&I activities.

3.5 A Coordinated Approach Beyond 2020

Although the details of the forthcoming funding period and working programmes are not yet fully clear, there are already specific insights provided by the European Commission services. This allows us to have a general perception of the 2021-2027 programming period. Some key features of the general approach and methodology of the Cohesion Policy are following.

- *Reinforced smart specialisation:* Smart specialisation will remain as a main approach for European MSs and regions in order to design, plan and implement R&I investments in the long-term.
- *More tailored approach to regions:* The European Commission will go on providing continuous support to relatively less-developed regions in order to contribute to closing the innovation gap and achieving critical mass across Europe.
- *Locally-driven development:* A place-based approach will continue to be fostered and RIS3 based investment programmes will continue defining European innovation ecosystems.
- *More support for innovative companies and market-creating innovations:* As active business involvement in the innovation ecosystem is a crucial issue to achieve social goals and create economic impact, business support programmes will be enhanced with additional incentives to encourage business entrepreneurs to become more involved in R&I activities.
- *More support to interdisciplinary and cross-sectors investments:* Following the nature of the innovation process, the European Commission will reserve more resources to support interdisciplinary and cross-border innovation activities in order to create new opportunities for researchers, innovators and business.

The post-2020 Cohesion Policy would create more opportunities for the EIT KICs to increase their contribution to national and regional innovation ecosystems and contribute to accelerating innovation diffusion across Europe. At this point, the main elements of the EIT's model (tailored and place-based innovation, business oriented innovation ecosystem, interdisciplinary research activities etc.) and ongoing EIT KICs' activities (with increasing emphasis on smart specialisation and supporting regions to increase their R&I capacity, particularly by EIT RIS) would create more opportunities to access different stakeholders and territories.

The proposed enhanced mandate received with EIT's Strategic Innovation Agenda for 2021-2027⁶³, will broaden its education agenda and integrate EIT RIS within the EIT's innovation model⁶⁴. In other words, the EIT's approach will better match with the requirements of the post-2020 programming period and the creation of more opportunities to achieve critical mass. This also means that the EIT Community can assist under each of the five policy objectives of the upcoming programming period; namely,

1. *Smarter EU*: via funding innovation and close to market research, digitalisation, contributing economic transformation and SME support.
2. *Greener EU*: with contributions to low carbon, energy transition, renewable energy, climate actions and sustainability in different thematic areas under different EIT KICs.
3. *Connected EU*: through urban level R&I activities and digitalisation/networking.
4. *Social EU*: through educational programmes to enhance qualification of labour force, training programmes, entrepreneurial skills development and societal appropriation of energy transition etc.
5. *EU Closer to Citizens*: through EIT RIS mainly and other similar schemes and/or dedicated budget and assistance to lagging regions to support locally-led development.

Enlarging the scale of collaboration and setting up a common working culture could potentially increase the efficiencies of innovation ecosystems by means of facilitated knowledge transfers between key stakeholders, and eventually, a more intense collaboration between the EIT Community and RIS3 stakeholders, which could in turn result in higher socio-economic impacts, as EIT and RIS3 have complementarities and compatibilities in terms of way of working, targeted communities, stakeholder engagement and common purposes.

Following suggestions from the Council and the European Parliament, the European Commission has been making significant efforts in facilitating access to the instruments enabling synergies, as well as the establishment of international collaborations. The new regulations will simplify the administrative procedures and create more opportunities to enhance scope for funding synergies in different fields. The simplifications and new synergy opportunities would create new opportunities for the EIT Community and RIS3 actors to deliver results in a more effective way and increase their direct contributions to European innovations ecosystems.

Typical approaches of the EIT's innovation model (e.g. partnerships between key innovation actors, entrepreneurial mind-set, lean management, smart funding, impact-based evaluation, etc.) can help the establishment of a more holistic view and contribute to general governance of R&I activities all over Europe. At the same time, the Entrepreneurial Discovery Process can increase the participation of different actors in the EIT's innovation model while national authorities can enhance their bottom-up approach by involving the EIT KIC's stakeholders in EDP and the design and implementation of RIS3. Collaboration can be further enhanced through more targeted cross-KIC activities. In addition, scaling-up interregional projects through the combination of RIS3 and EIT KICs' resources can create more synergies with tangible impacts. Moreover, collaboration with other European bodies and platforms (e.g. ERA-NETs, JPIs, JUs etc.) would enrich innovation ecosystems and help the EU to leap up in terms of R&I activities. These types of joint activities would make more direct contribution to addressing the innovation gap and achieving critical mass across EU.

Lastly, it can be noted that a more holistic and comprehensive approach with emphases on cross-KIC and cross-EU bodies/instruments, as well as focusing on enabling synergies

⁶³ Based on the European Commission proposal in 2019 and pending the outcome of the institutional negotiations

⁶⁴ See [EC proposal for the EIT Legislative Package for 2021-2027 \(Regulation and Strategic Innovation Agenda\)](#)

between different funding resources and policy instruments would require going beyond the thematic limits. In this context the RIS3 actors and the EIT KICs can fulfil an important element of European innovations ecosystems that is a 'holistic test-bed' aligning activities without limits of borders, themes, stakeholders and so on. Hence, they can have a key role in the development of comprehensive, more transparent and more synergetic EU innovation ecosystems.

4 Conclusion

While the development of Europe-wide value chains through innovation is a key objective of both the EIT Knowledge and Innovation Communities (EIT KICs) and national and regional ESIF Managing Authorities (MAs), collaboration practices remain relatively scarce and regional innovation eco-systems around EIT KICs and those centred around RIS3 remain largely separated. If we want to spread excellence across the EU and connect places better to international value chains, a concerted effort is needed to better connect the dots. This report has therefore identified a wide number of possible areas for collaboration, as well as a set of different modes for implementing them, with the objective to potentially lead to a more coordinated approach from both sides.

In view of the upcoming Multi-Financial Framework 2021-2027, upscaling collaboration can better prepare EIT Community and RIS3 implementation bodies for harvesting opportunities after 2020 by means of simplification of management of funding e.g. a single rulebook covering seven EU funds, a single branding covering all different EU funds, a single portal displaying all available funding for businesses and a single project database run by the Commission, as well as budgetary flexibility. The possibility (foreseen in the proposal for common provision regulations) for Member States and regions to request a transfer of up to 5% of the programme financial allocations to another EU fund (for example to one of the EIT's KICs as part of Horizon Europe) becomes more realistic when partners can build on prior experience in collaboration and gradually build up mutual trust between partners.

In addition, in view of connecting places better to European R&I agendas and value chains, similar practices can be analysed and disseminated for collaborations between ESIF Managing Authorities and other European Partnerships in Research and innovation. An example includes collaboration practices between Managing Authorities and Joint Undertakings (Haegeman et al, 2019). Similar initiatives can be taken for other partnerships like ERA-NETs, JPIs, ETPS, etc. In aiming to build more critical mass around European value chains and EU wide R&I missions, it would be also important to further reinforce connections between those partnerships. Herein, thematic interregional partnerships can play an important role to establish connections with these partnerships and help both groups of actors (of RIS3 and the EIT Community) to access international and European value chains.

As in all collaborations, trust comes slowly, and there are a number of bottlenecks in moving ahead. This report has identified a number of options for both EIT KICs and for Managing Authorities to upscale collaboration practices in a more systematic way, starting from the current programming period. While current collaboration practices focus mainly on EIT RIS regions, good potential also exists between Co-location Centres and the relevant regional authorities, as well as between the EIT KICs and interregional partnerships. In this, funding synergies play an important role, particularly in view of the objective of long-term sustainability for the EIT KICs and of optimising the overall spending of R&I funds across Europe. However, synergies establishing better connections between stakeholder networks and between policies and programmes may be as important, e.g. by offering local stakeholders better access to international networks or by involving the EIT Community actively in the Entrepreneurial Discovery Process (EDP) and RIS3 development and implementation.

Finally, more collaboration will allow research and innovation in the EU to contribute to the six headline ambitions for Europe over the next five years and beyond. For the European Green Deal in particular, it will allow to build wider coalitions that involve territories and actors across the entire EU, as well the necessary excellence to achieve to ambitious objectives.

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List of abbreviations

AC	Country associated to Horizon 2020
CF	Cohesion Fund
CLC	Co-location Centres of EIT KICs
CRL	Consumer Readiness Level
COSME	Competitiveness Programme for Small and Medium-sized Enterprises
COST	European Cooperation in Science & Technology
DG REGIO	Directorate-General for Regional and Urban Policy
DIH	Digital Innovation Hub
EAFRD	European Agricultural Fund for Rural Development
EC	European Commission
EDP	Entrepreneurial Discovery Process
EFSI	European Fund for Strategic Investments
EIB	European Investment Bank
EIT RIS	EIT Regional Innovation Scheme
EIT	European Institute of Innovation and Technology
EMFF	European Maritime and Fisheries Fund
ERA-NET	European Research Area Net
ERDF	European Regional Development Fund
ESF	European Social Fund
ESIF	European Structural and Investment Funds
EU	European Union
FP	Framework Programme
H2020	Horizon 2020
HEI	Higher Education Institution
ICT	Information and Communication Technologies
JPI	Joint Programming Initiative
JRC	Joint Research Centre
JU	Joint Undertaking
KIC	Knowledge and Innovation Community
KTI	Knowledge Triangle Integration
MA	Managing Authority
MFF	Multiannual Financial Framework
MoU	Memorandum of Understanding
MS	Member State of the European Union
NCP	National Contact Point
NGO	Non-governmental Organization
OP	Operational Programme (for ESIF)

PDL	Project Development Lab
PO	Policy Objective (investment priorities of ESIF for 2021-27)
PPP	Public Private Partnerships in research
PRO	Public Research organisation
R&D	Research & Development
R&I	Research, Development & Innovation
RIS3	Research and Innovation Strategies for Smart Specialisation
S2E	Stairway to Excellence
S3P	Smart Specialisation Platform
SME	Small and medium-sized enterprises
SoE	Seal of Excellence
TO	Thematic Objective (investment priorities of ESIF for 2014-2020)
TRL	Technology Readiness Level
WEF	World Economic Forum

Glossary

Cohesion Policy	Cohesion policy is the European Union's strategy to promote and support the <i>overall harmonious development</i> of its Member States and regions. It aims to strengthen economic and social cohesion by reducing disparities in the level of development between regions.
Complementarity	Funds and instruments reinforce each other in achieving their objectives.
Coordination	Mechanisms that ensure that funds and instruments work together effectively during implementation at the EU, national and regional levels.
EIT Community	For the purpose of this report EIT Community refers to the EIT and its Knowledge and Innovation Communities (KICs).
EIT Hubs	EIT Hubs are local organisations in EIT RIS eligible countries, selected by EIT KICs, via an open competitive process, to act as an 'interaction point' between the EIT KIC and actors of the local ecosystem. These organisations might differ in nature (e.g. University lab, NGO, SME, research organisation etc.) but all of them have in common the implementation of the KIC's EIT RIS activities at local level.
EIT Knowledge and Innovation Community (KIC)	KIC means an autonomous partnership of higher education institutions, research organisations, companies and other stakeholders in the innovation process, in the form of a strategic network based on a joint mid- to long-term innovation planning to achieve the EIT challenges, regardless of its precise legal form.
Co-location Centres (CLCs)	Co-location Centres are where KIC partners work closely together on a daily basis for ideation, projects and initiatives. Co-location centres build on existing centres of excellence, and have three key functions: Connectivity – Knowledge management-Activity management.
Managing Authority (MA)	Refer to the organisations responsible for the efficient design and implementation of operational programmes of ESIF.
Policy synergies	Refer to achieving impact by providing input to policy making, combining policy positions and influencing strategies in an interactive way.
RIS3 Implementation Bodies	Institutions assigned to follow and conduct the OP implementation in line with the RIS3. They play key roles in ensuring the vision and objectives of smart specialisation, as well as the stakeholder involvement.
Synergy (among funding programmes)	Amplifying the research and innovation investments and their impact, combining different forms of innovation and competitiveness support, or carrying innovative ideas further along the innovation cycle or value chain to bring them to the market.

Operational Programme (OP)	detailed plans in which the Member States set out how money from the European Structural and Investment Funds (ESIF) will be spent during the programming period.
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Annexes

Annex 1. EIT KICs: Objectives, partners and networks/ locations (†)

KI C	Objectives	Partners /Network	Offices/Centres/Countries
EIT Climate-KIC (2010)	<p><i>Climate change mitigation and adaptation:</i> to become a climate innovation movement that can instigate and catalyse transformational climate action and breakthrough innovation at systems level; the common ambition is to create a prosperous, inclusive, climate-resilient society with a circular, zero-carbon economy</p>	360 partner organisations	<p><i>HQ:</i> Amsterdam (NL) <i>CLCs:</i> London (UK/IE), Utrecht (NL), Berlin (DE), Zurich (CH), Paris (FR), Bologna (IT), Valencia (ES), Copenhagen (DK), Warsaw (PL) <i>Satellite Offices:</i> Wolkersdorf im Weinviertel (AT), Budapest (HU), Birmingham (UK) Additional Corporate Office is located in Brussels (BE)</p> <p><i>EIT Hubs under RIS in Bulgaria, Cyprus, Estonia, Latvia, Malta, Portugal (2 hubs), Romania, Serbia, Slovenia, Croatia, Greece, Lithuania</i></p>
EIT Digital (2010)	<p><i>Future information and communication technologies:</i> foster digital technology innovation and entrepreneurial talent for economic growth and quality of life in Europe</p>	153 partner organisations	<p><i>HQ:</i> Brussels (BE) <i>CLCs (Nodes):</i> Berlin (DE), Helsinki (FI), London (UK), Paris (FR), Stockholm (SE), Eindhoven (NL), Trento (IT), Budapest (HU), Madrid (ES) <i>Other:</i> Silicon Valley Office (San Francisco/USA) <i>Satellite Offices:</i> Milano (IT), Rennes (FR), Sophia-Antipolis (FR), Munich (DE), Braga (PT), Edinburgh</p> <p><i>EIT Hubs under RIS in Czech Republic, Estonia, Greece, Poland, Portugal, Slovakia, Slovenia, Bulgaria, Romania</i></p>
EIT InnoEnergy (2010)	<p><i>Pioneering change in sustainable energy:</i> become the leading engine for innovation and entrepreneurship in sustainable energy for Europe</p>	Over 400+ associate and project partners across Europe	<p><i>HQ:</i> Eindhoven (NL) <i>CLCs:</i> Eindhoven, Genk (Benelux); Kraków (Central Europe); Grenoble (FR); Karlsruhe/Stuttgart (DE);, Barcelona, Stockholm (SE) <i>Satellite Offices:</i> Amsterdam (NL), Brussels (BL), Lisbon (Iberia), Uppsala (SE), Berlin (DE).</p> <p><i>EIT Hubs under RIS in Bulgaria, Croatia, Cyprus, Serbia, Estonia, Greece, Hungary, Latvia, Lithuania, Romania, Slovakia, Slovenia and Turkey.</i></p>

<p>EIT Health (2014)</p>	<p><i>Healthy living and active ageing:</i> It is the primary goal of EIT Health to improve the quality of life of European citizens. EIT Health partners have identified three specific societal challenges to address to promote healthy living, to support active ageing and to improve healthcare, and three cross challenges or “pathways to delivering impact”: Removing barriers to innovation, leveraging talent and education, leveraging enabling technologies and exploiting big data.</p>	<p>212 partners, 23 affiliated entities and 35 entities with a legal link to EIT KIC partners</p>	<p>HQ: Munich (DE) CLCs: London (UK/IE), Stockholm (Scandinavia), Barcelona (ES), Paris (FR), Mannheim and Heidelberg (DE/CH), Rotterdam (BE/NL) InnoStars: PT, PL, HU, IT, HR. EIT Hubs under RIS in Slovakia, Portugal, Romania, Poland, Lithuania, Hungary, Italy, Greece, Croatia, Czech Republic, Estonia, Latvia, Slovenia</p>
<p>EIT Raw Materials (2014)</p>	<p><i>Securing raw materials supply, designing materials solutions and closing materials loops:</i> boost the competitiveness, growth and attractiveness of the European raw materials sector via radical innovation and entrepreneurship</p>	<p>More than 400 project partners</p>	<p>HQ: Berlin (DE) CLCs: Espoo/FI (Baltic Sea); Metz/FR (Central); Wroclaw/PL (Eastern); Luleå/SE (Nordic); Rome/IT (Southern); Leuven/BE (Western) Regional Centres (EIT Hubs under RIS): Kosice (SK); Ljubljana (SI), Athens (GR), Zagreb (HR), Brindisi (IT) Satellite Offices: Freiberg (DE), Leoben (AT),</p>
<p>EIT Food (2016)</p>	<p><i>Sustainable supply chain from resources to consumers:</i> aim is to develop a highly skilled food sector, which collaborates with consumers to provide products, services and new technologies, which deliver a healthier lifestyle for all European citizens In addition, EIT Food has six Strategic Objectives: 1. Overcome low consumer trust, 2. Create consumer valued food for healthier nutrition, 3. Build a consumer-centric connected food system, 4. Enhance sustainability through resource stewardship, 5. Educate to engage, innovate and advance 6. Catalyse food entrepreneurship and innovation</p>	<p>More than 50 partners</p>	<p>HQ: Leuven (BE) CLCs: Leuven/BE (West – BE, FR, CH, LU), London/UK (North-West – UK, IE, IS) Madrid/ES (South – ES, IT, IL, , CY, GR, MT, PT, TK,)) Munich/DE (Central – DE, NL, AT) Warsaw/PL (North-East – AL, AM, BA, BG, CZ, DK, EE, FI, GE, HR, HU, LT, LV, MD, ME, MK, NO, PL, RO, RS, SK, SL, SE, UA) EIT Hubs under RIS in Czech Republic, Croatia, Estonia, Greece, Hungary, Italy, Latvia, Lithuania, Portugal, Romania, Slovakia, Slovenia and Turkey.</p>

EIT Manufacturing (2018)	EIT Manufacturing’s mission is to bring European manufacturing actors together in innovation ecosystems that add unique value to European products, processes, services – and inspire the creation of globally competitive and sustainable manufacturing.	More than 50 partners	HQ: Paris CLCs: Donostia/San Sebastian – CLC West (FR, PT, ES) Darmstadt – CLC Central (DE, NL, BE) Gothenburg – CLC North (Finland, SE, ES, Lithuania, IR) Milan – CLC South (IT, Switzerland) Vienna – CLC East (Switzerland, GR, SK, AU)
EIT Urban Mobility (2018)	EIT Urban Mobility is dedicated to accelerating solutions that improve our collective use of urban spaces, while ensuring accessible, convenient, safe, efficient, sustainable and affordable multimodal mobility.	More than 50 partners	HQ : Barcelona CLCs: Copenhagen – CLC North (DK, FI, DE, SE,) Munich – CLC Central (DE, IT, Turkey) Helmond – CLC West (BE, FR, NL, UK) Prague – CLC East (CZ, DE, HU, Israel) Barcelona – CLC South (ES, Switzerland)

(¹) Information compiled from the grant reporting data and strategy documents of EIT KICs.

Annex 2. EIT KICs: Themes and main activities (1)

Themes	Main Activities
<p>EIT Climate-KIC (2010)</p> <p><i>Theory of change:</i> a climate innovation movement that aligns around 12 innovation impact goals covering 4 thematic areas:</p> <p><i>Urban Transition:</i> promote retrofit and decentralised energy; create green, resilient cities; accelerate clean urban mobility</p> <p><i>Sustainable Production Systems:</i> Recast material production; reduce industry emissions; reboot regional economies</p> <p><i>Decision Metrics & Finance:</i> mainstream climate in financial markets; democratize climate risk information; foster green bankable assets in cities</p> <p><i>Sustainable Land Use:</i> make agriculture climate-smart; reform food systems; nurture forests in integrated landscapes</p>	<p>EDUCATION</p> <p><i>The Journey:</i> The world's largest Climate Innovation Summer School.</p> <p><i>Catapult PhD summer school</i></p> <p><i>Graduate School:</i> postgraduate education at the master's and doctoral levels; entrepreneurial, intrapreneurial and enabler training (37 existing EIT labelled Master programmes).</p> <p><i>Online Courses:</i> Online learning library, courses and programmes</p> <p><i>Pioneers into Practice:</i> professional mobility programme operating in eight European and 12 RIS locations</p> <p>ENTREPRENEURSHIP</p> <p><i>Start-up Ideation and Open Innovation:</i> 24-hour hackathon (<i>Climathon</i>) for innovative solutions; Green idea competition (<i>ClimateLaunchpad</i>), tailored workshops and further support to develop business plan (<i>Greenhouse</i>) for students and entrepreneurs</p> <p><i>Early-stage start-up incubation:</i> Start-up accelerator, Investor marketplace, Venture competition, Technology Validation Vouchers</p> <p><i>Later-stage start-up scaling:</i> Climate Changer Club, Scale-up support programme, Virtual equity programme</p> <p>RESEARCH & INNOVATION</p> <p><i>Early Stage Innovation:</i></p> <p><i>Ideation events:</i> workshops and competitions to enable partners to share and define ideas</p> <p><i>Pathfinder:</i> Funding to test, refine and confirm assumptions about innovative ideas</p> <p><i>Partner Accelerator:</i> to validate business models</p> <p><i>Later Stage Innovation:</i></p> <p><i>Demonstrator Programme:</i> to support multiple stakeholders with funding and services to de-risk the demonstrations of innovations</p> <p><i>Scaler Programme:</i> funding and support for proven innovations and market-ready solutions to reach the next stage of replication</p> <p><i>Flagships:</i> Key platforms and leading examples of knowledge triangle integration where SMEs, start-ups, universities, corporates and public bodies all collaborate around key challenges and link the portfolio and coordinate ecosystems targeting key levers of change.</p> <p><i>Transitions Hub:</i> In-house lab unit on knowledge development and policy learning</p>
<p>EIT Digital (2010)</p> <p>Action lines:</p> <p><i>Digital Wellbeing:</i> Slowing down the growth of healthcare expenses while maintaining the quality of life through prevention of coping with mental and physical conditions</p>	<p>EDUCATION: EIT DIGITAL ACADEMY</p> <p><i>Master School:</i> Digital entrepreneurial education</p> <p><i>Doctoral School:</i> Industry embedded, market focused doctorates</p> <p><i>Professional School:</i> Working with industry and achieve innovation</p> <p>Summer schools: Summer schools are an integrated part of the Master students' I&E education, where they work on business case studies connected to the innovation Action Line areas.</p> <p><i>Digital Alumni:</i> Vibrant and successful alumni network via meetings, interactions, discussion forums as well as support to get</p>

Digital Industry: improve efficiency in production and retail (big data collection, aggregation, analysis and visualisation)

Digital Cities: digital transformation of cities through centralised, participative and collaborative interactions between city actors

Digital Infrastructure: Action Line is the core enabler of the digital transformation by providing secure, robust, responsive and intelligent communications and computation facilities. This is our core Action Line for all things digital. The work is not application-specific, but the idea is to progress networking, data intensive tools and product as well improve cybersecurity, that in turn can be used for different vertical segments.

Digital Finance: support the creation of innovative tools and services to help the finance industry adapt to the challenges it currently faces

in contact with companies, academia and public

US-EU Programme: Internship options for students

Post-master Position: Support for post-graduates

INNOVATION

Activities corresponding the themes/action-lines:

Wellbeing: a special focus on the following areas:

- Digital solutions targeting the young to early detect and prevent mental and physical issues (e.g. depressions, overweight, obesity). The following technologies can support solutions in this area: predictive analytics, artificial intelligence, accurate sensing, chatbots, gamification.
- Digital solutions coping with urban and environmental issues (e.g. air pollution, infectious diseases, stress) affecting health of vulnerable people (with chronic diseases or the elderly).
- On-demand digital solutions offering personalized health & wellbeing services for elderly and remote workers @home (integrating care providers).

Industry: special focus on the following areas:

- Data-driven solutions and services for manufacturers: capturing and digitising knowledge of manufacturing and production processes, using field data for transformation of design processes and work flows, and mass-customisation of parts and end-user products
- Automated solutions for shopping: service innovations and technology that automate consumer's activities, like discovery, purchase or delivery, in all kinds of retail channels.

Cities: the specific orientations targeted urban mobility services and particularly for the connected cars, digital tools to support urban planning and digital driven social and technological innovations to make everybody feel safe in cities

Infrastructure: a special focus on the following areas:

- Distributed real-time computing & Big Data/Artificial Intelligence approaches Distributed real-time computing & Big Data/Artificial Intelligence approaches
- Cybersecurity and privacy - Safeguarding the network, the platform, the device, the data
- 5G & Internet of Things - Massive number of things & ultra-reliable communication for mission critical applications with a comprehensive approach for connectivity, devices, security and analytics

Finance: a special focus on the following areas:

- Future of the retail banking.
- Digital Wealth Management. This area is being strongly impacted by some of the emerging technologies. Robo-advisors, using machine learning and artificial intelligence try to serve customers fighting for proposing the best financial strategies with seasoned human advisors for a fraction of the cost. Algorithms take decisions on investments at speed of light, sometimes entering unknown scenarios of risks out of people control.
- Modernized Corporate Banking and Insure-Tech.

ENTREPRENEURSHIP

The flagship component of the Entrepreneurship Area is the EIT

	<p>Digital Accelerator, complemented by the Industry-startup Connections/Hackathons.</p> <p><i>Digital Challenge:</i> Scale up the digital tech business. It serves to identify new promising candidates for the Accelerator support.</p> <p><i>Accelerator:</i> with its Activities: access to market; access to finance.</p> <p>Industry Business Development (IBD): This segment contains two activities, the "Industry-startup connections/Hackathons and the CLC Operation Costs for Innovation and Entrepreneurship. The Industry-startup connections / Hackathons activity aims at addressing corporate, partners and non-partners, needs of identifying emerging technological trends, build relationships with scaleups in specific markets as well as to identifying and scouting talents capable of finding innovative solutions to pressing challenges.</p>
<p>EIT InnoEnergy (2010)</p> <p><i>Clean coal and gas technologies:</i> reduce emissions of CO₂; best use of biomass, waste etc.</p> <p><i>Energy storage:</i> integrate renewable energy into the electricity grid</p> <p><i>Energy efficiency:</i> efficiency in buildings and industry</p> <p><i>Energy from chemical fuels:</i> efficient conversion of feedstocks into energy-dense carriers</p> <p><i>Renewable energies:</i> production, penetration and profitability of renewable energy</p> <p><i>Smart and efficient buildings and cities:</i> energy-positive homes and commercial buildings</p> <p><i>Sustainable nuclear and renewable convergence:</i> advanced materials and processes for nuclear and renewable sources</p>	<p style="text-align: center;">EDUCATION</p> <p><i>Master school / PhD school / Professional digital learning / Executive education and post-master / Career centre / Lumen – Energy for kids</i></p> <p style="text-align: center;">INNOVATION PROJECTS</p> <p><i>InnoEnergy supports finalising and commercialising technological innovations that lead to new products and services. EIT InnoEnergy invest in businesses and help develop innovative products, services, and solutions that have high commercial potential and provide access to a deep pool of complementary skills and resources, and connect them to markets and commercial opportunities across Europe.</i></p> <p><i>Thematic Fields: Clean coal and gas technologies; Energy storage; Energy efficiency; Energy from chemical fuels; Renewable energies; Smart building and cities; Smart electric grid; Nuclear instruments</i></p> <p style="text-align: center;">BUSINESS CREATION SERVICES</p> <p><i>InnoEnergy helps start-ups to create successful businesses that bring solutions to a global market. EIT InnoEnergy services range</i></p> <ul style="list-style-type: none"> • Give access to over 400 European project partners to support the development of new products • Provide investment funding to help make your project a reality • Identify market needs and potential customers • Shorten the time to market for innovative ideas • Turn prototypes into commercial products within five years • Give access to an Investors Community (CVCs, VCs etc.) • European Hub, to 1) better understand European regulation in energy 2) access to finance (i.e. EIB loans) 3) get European visibility in major events <p><i>The Highway: for entrepreneurs and start-ups at the beginning of their journey</i></p> <p><i>The Boostway: for more firmly established companies looking to consolidate and grow their business</i></p>
<p>EIT Health</p> <p><i>Promote healthy living:</i> by increasing awareness of good habits and encouraging changes in our behaviour.</p> <p><i>Support active ageing:</i></p>	<p style="text-align: center;">CAMPUS (EDUCATION)</p> <p><i>Strategic Initiatives:</i> strengthen the ecosystem of knowledge and innovative thinking (EIT Health Alumni; Women Entrepreneurs in Health Innovation – WE Health; Innovative Education and so on.</p> <p><i>Training for students:</i> focus on stimulating learners to advance their knowledge, skills and attitudes to enhance their health-</p>

by developing tools to help all of us work more flexibly and live longer in our own homes.

Improve healthcare: through innovations that empower patients.

related innovation and entrepreneurial capabilities etc.

Training for executives & Professionals: (for executives) provide educational counselling on decision making processes for various challenges & (for professionals) address formal and informal caregivers, industry, public bodies and NGO representatives

Training for Entrepreneurs and Innovators: endeavours to encourage a new mind-set conducive to innovation, while providing basic skills leading to the founding of successful businesses or improvements in healthcare

Citizen Engagement: developing new means of innovation by supporting citizen science, (big) data handling, co-creation, market investigation and taking other novel approaches

Digital Programmes: Massive Open Online Courses (MOOCs), and other types of digital engagement

ACCELERATOR (BUSINESS CREATION)

Incubate: support for not-yet entrepreneurs or scientists wanting to develop start-ups

Validate: network of Living Labs and Test Beds provides entrepreneurs the means to test products throughout the value chain

Scale: for more mature start-ups and SMEs to facilitate access to tools and networks for financing and market expansion

INNOVATION PROJECTS (INNOVATION AND RESEARCH)

Innovation by Ideas: new, solution-driven ideas to improve healthcare.

Innovation by Design: needs-driven projects to address a recognised market need or societal problem

Wild Card Projects: innovative, high-risk and ground-breaking ideas addressing healthcare challenges

INNOSTARS – EIT Health’s Approach for Widening Participation across Europe

The InnoStars are regional clusters of EIT Health Associate Partners representing industry, academia, research and healthcare providers linked to predominantly convergence regions. The knowledge and experience of the InnoStars as well as the diversity of their populations, associated lifestyles, regulatory frameworks, and healthcare systems will help overcome barriers to rolling out innovations across Europe. Additionally, the Innostars represent attractive markets and regions open to testing/piloting new innovative healthcare solutions.

Innostars also contribute to the interconnectivity of funds by attracting available structural, national or other H2020 funds to implement integrated projects along the key pillars of the knowledge triangle. Each InnoStars and RIS region will provide innovation infrastructure, funded by ESIF. Furthermore, participation in EIT Health activities allows these regions to attract additional investment and add value to new 2014-2020 convergence projects.

EIT Raw

Exploration: new discoveries and raw materials resource assessment

Mines for modern society: intelligent and

ACADEMY

Master: in Advanced Materials for Innovation and Sustainability; European Mining Course; Georesources Engineering; Sustainable and Innovative Natural Resource Management; Sustainable Materials

<p>sustainable mining in challenging environments</p> <p><i>Develop and improve processing:</i> resource efficiency in mineral and metallurgical processes</p> <p><i>Substitution:</i> Substitution of critical and toxic materials in products</p> <p><i>Recycling:</i> Recycling and materials chain optimisation of end-of-life products</p> <p><i>Circular economy:</i> Design of products and services for the circular economy</p>	<p><i>PhD:</i> in Functional Materials; New Approaches and Technologies in Materials Production;</p> <p><i>Lifelong learning:</i> Face-to-face courses; Massive Open Online Courses (MOOCS); Copernicus – Raw mat cop</p> <p><i>Wider society:</i> The Raw Matters Ambassadors at Schools (RM@Schools); Junior Achievement Europe</p> <p style="text-align: center;">INNOVATION PROJECTS</p> <p><i>Securing raw materials supply:</i> Raising awareness of the diversity and the potential of raw materials sources in Europe</p> <p><i>Designing solutions:</i> Inspiring innovation in the creation of products, product-service systems, processes and wider systems across the whole life-cycle</p> <p><i>Closing material loops:</i> Raising awareness of the benefits of optimising resources and minimising losses by closing material loops amongst students, industry and society</p> <p style="text-align: center;">BUSINESS CREATION</p> <p><i>Business Idea Competition:</i> developing idea holders and research teams turning ideas into business models</p> <p><i>Start-up and SME Boosters:</i> supports to validate the business models and connects with the EU networks</p> <p><i>Funding Instruments:</i> helping high-potential entrepreneurs find the required financial and nonfinancial support to bring innovative concepts to market</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">EIT Food (2016)</p> <p>A highly skilled food sector: also collaborates with costumers to provide products, services and new technologies.</p> <p><i>A healthier lifestyle:</i> for all European citizens</p> <p>Sustainable circular bio-economy: produce, deliver, consume and recycle food & to create a future-proof and effective food sector</p>	<p style="text-align: center;">EDUCATION</p> <p>Interdisciplinary, interactive and practice oriented courses, workshops, summer schools and online education programmes (Massive Open Online Courses - MOOCS and Specialized Private Online Courses - SPOCS) for students, entrepreneurs and professionals.</p> <p style="text-align: center;">INNOVATION</p> <p><i>Assistant:</i> non-invasive tools, on-line information services and market novel technology to self-monitor the Preferences, Acceptance, and Needs (PAN), to make healthier decisions environmental sustainability</p> <p><i>Your Fork2Farm:</i> consumer-centric “fork-to-farm” approach to deliver personalized healthy food at economies-of-scale associated with mass production</p> <p><i>Web of Food:</i> catalyse the digitalization of the food system to boost a demand-driven, resource- efficient food production</p> <p><i>Zero Waste Agenda:</i> explore and utilize circular bio-economy pathways by identifying favourable tracks</p> <p style="text-align: center;">BUSINESS CREATION</p> <p><i>Support in life circle, from innovative ideas to start-ups and SMEs & access to finance, networking, competence, technology and market</i></p> <p><i>Innovation grants:</i> enabling participants in education activities (summer schools, SME workshops, Food Solution programme)</p> <p><i>Accelerator Network (EIT FAN):</i> 4 month programs with expert coaching and funding for start-ups</p> <p><i>FoodSparks:</i> provides start-ups with funds to bridge the critical early stage of their development</p>

Access to Finance: invest financially in promising start-ups, and to increase their success rate with benefit from management support

RisingFoodStars: outstanding European start-ups from the agri-food-tech area participating in EIT Food's innovation, education and business creation

(¹) Information compiled from the grant reporting and strategy documents of EIT KICs

Annex 3. Cross-KICs activities of the EIT Community (2019⁶⁵)

	Objective	Outcome
Human Capital	To strengthen the EIT KICs cooperation in education and broaden the education perspective towards a wider Human Capital approach (including professional education and wider public education as well).	A common Cross-KIC Learning Analytics Framework, A package of innovative education, adjustable to local needs, EU-Wide Digital Education, MOOCs, Digital AI predictive tools, data science for learning behaviour etc.
Skills 4 Future	Inspire young people to be entrepreneurs by enabling them to create solutions for societal challenges through mentor-based industry programmes	Educational program (camps, workshops, trainings) in MSs
EIT RIS joint activities	Strengthen coordination of EIT RIS activities and foster co-creation.	Coordination and implementation of joint activities such a start-up support, pre-acceleration, awareness raising, community building and sharing knowledge and good practices
EIT House Brussels	Increase visibility and awareness raising of EIT Community in Brussels.	Establish an EIT House in Brussels, with all KICs and EIT Liaison office co-located.
CLC Consolidation	Explore opportunities for co-location of KICs in Europe with the aims to (i) enhance Cross-KIC activities and stakeholder engagement; (ii) increase the visibility of the EIT Community, and (iii) allow cost savings.	Shared offices for EIT KICs in several locations across Europe- establishment of EIT Community hubs in respective locations.
Global Outreach	Expand EIT's footprint at international level, by positioning EIT's innovation model among other successful models, publicising EU innovation, and attracting talent.	Establish EIT Community hubs in USA (Silicon Valley), Israel (Tel Aviv) and China (Beijing).
Food for Health	Establish a sustainable connection between EIT Food and EIT Health KICs, leveraging the strength of individual partnerships and developing a citizen oriented innovation programme through improved nutrition and behavioural support.	Establish the foundation for ongoing collaboration between both EIT KICs on the content and operational levels.

⁶⁵ Six new cross-KIC activities are planned to be launched in 2020 in the areas of Artificial Intelligence, Resource Efficient Society, Digitized Society, Child Obesity, Water Scarcity and Sustainable Cities.

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