Friends of Smart Specialisation

Response to the public consultation on the Interregional Innovation Investment (I3) supported by the ERDF

Final version: 30th September 2020

Summary

The I3 instrument is the first European leverage instrument for promoting interregional co-investments in priority areas for transformation. It will require the mainstreaming of smart specialisation (S3) as an integrated and place-based innovation and transformation strategy that can interconnect the regional innovation ecosystems as well as the operational synergy between European instruments for tailored support to investment pipelines in new value chains.

Friends of Smart Specialisation (FoSS)[1] strongly support the Interregional Innovation Investments Instrument (I3) and welcome the agreement from the Council to create this new tool under the ERDF, while **regretting the limited budget of €500 million.** Despite the limited budget, this instrument has a unique role to support the innovation potential available in European regions and supporting the recovery of the European Union as a whole through a coordinated approach for investments in the development of interregional value chains across the EU in perspective of the twin transition. But this requires an **adequate multi-level European governance that recognises the dual principle of top-down policy leadership and bottom-up entrepreneurial discovery.** The I3 instrument, therefore, should be implemented as a bridge between the territorial dimension and the industrial dimension in the overall policy mix for recovery and transformation that is now being shaped with an appropriate 'co-governance'.

- The I3 must be focused **on regions that have robust smart and sustainable specialisation strategies (S4)** and an interest and the capacity to implement these strategies, policies and projects through cluster [JL1]collaborations both within and, more importantly for the I3, outside the region.
- Due to its limited budget, it is important that I3 should play a **strong role in developing synergies with other EU funding instruments** and institutions promoting innovation and internationalisation. The I3 must actively seek coordination between the services that have complementary instruments to ensure a full and consistent European support package for the implementation of the joint S3 strategies for particular strategic value chains.
- The I3 should actively **engage with the Smart Specialisation Thematic Platforms** as a 'co-governance' mechanism between participating regions and DGs to tailor their support instruments to the preparation of co-investments in the partnerships. This will involve as well relevant programmes within Horizon Europe, and also the EIC and its accelerator initiative, the EIT KICs, the Enterprise Europe Network, cluster initiatives at the EU level and others like the new European University.[2] Also included should be leading platforms promoting innovation and cross-border value chains such as the Vanguard Initiative. The I3 governance should also be supported by the future transnational cooperation

[1] An initiative from an independent group of experts and practitioners concerned for the future directions of smart specialisation. The group's goal is to support the mainstreaming of Smart Specialisation as an instrument for strengthening the multi-level European innovation system. For more information see http://www.efiscentre.eu/portfolio-item/friends-of-smart-specialisation . In previous policy notes FoSS have pointed at the unique window of opportunity to better integrate the European governance for transformation through the full implementation of smart specialisation in the Green Deal, in European industrial policy, in the European Recovery Plans and in the new European Research Area.

[2] https://ec.europa.eu/education/education-in-the-eu/european-education-area/european-universities-initiative_en

programmes for networking, peer reviews and possible staff exchange projects. This governance would be a unique experiment for synergies-in-action.

> **The FoSS welcome the adoption of the I3 as a next step to catalyse more transformative co-investments in strategic value chains across regions.** While this instrument is still of limited scale the recommendation is to use this for accelerating policy learning on building synergies between policies and instruments because fragmentation seems to be the main barrier for the EU-wide transition to a new growth model. Therefore, **the instrument has to be designed as a lever for co-investments in a strategic way**, by promoting the connection between the most advanced smart specialisation strategies, on the one hand, and the interconnection between the most important European support instruments for the twin transformation on the other hand.
>
> The I3 instrument can play such a strategic role by using the co-governance in S3 platforms between lead-regions and lead-DGs for supporting the investment pipeline of S3 partnerships. The I3 could therefore be reserved as a 'topping-up' support for co-investments between the regions and combinations with other instruments in the policy mix (Horizon, COSME, Interreg) for transformative projects delivered through the relevant DGs (RTD, GROW, REGIO, CNECT, AGRI, …).

1. Introduction

The Interregional Innovation Investment is a new instrument to be included in the 2021-2027 EU funding programme. According to DG REGIO, I3 will be a new type of interregional cooperation linking smart specialisation strategies that complements, but does not replace, support under mainstream, cross-border, and transnational cooperation in innovation. Rather, it will address gaps in the current support framework. The I3 has been developed from the EC Pilot Action 'Regions in Industrial Transition'[3] which was based on the premise that European regions needed to become more competitive and resilient within the changing context of globalisation. Regions in industrial transition face specific challenges such as a lack of appropriate skills, de-industrialisation, difficulties in attracting investment and often failing to make use of the opportunities offered by EU funds to develop new comparative advantages and move up the value chain.

The final report on this Pilot Action,[4] noted that the key challenges of industrial transition – increasing globalisation, automation, digitalization and accelerated emergence of new technologies, coupled with the need for transition to a low-carbon and circular economy – are multi-faceted and interlinked, in particular, for regions that are 'second-tier' regarding attractiveness, often with small 'pockets of excellence', and socially and territorially divided societies. These regions are increasingly less well equipped for industrial transition.

However, staying competitive in the global economy increasingly depends on transnational activities and participation in global value chains. In fact, the competitiveness of EU industry is largely determined by

[3] Pilot Action: regions in industrial transition
https://ec.europa.eu/regional_policy/sources/docgener/informat/industrial_transition/pilot_industrial_transition.pdf
This pilot action was intended to feed into the reflection on Cohesion Policy support to economic modernisation and smart specialisation after 2020. Each of the test regions and countries defined a strategy to foster economic transformation and then analyses lessons learned from the pilot action and implementation of the strategy.

[4] European Commission Pilot Action Regions in Industrial Transition Capitalisation Phase Final Report, March 2020
https://ec.europa.eu/regional_policy/sources/docgener/studies/regions_indust_trans_en.pdf

the capacity of EU regions to develop and link their innovation ecosystems by continuously supporting and facilitating cooperation between regional actors across the European Union while connecting to the maximum extent possible to global production networks. The European Commission stresses that European Union's competitive edge largely depends on its ability to develop new regional level growth models by targeting investments in innovative areas that have a global relevance.[5]

The I3 assumes that in a globalised world, regions will need to continually invest in innovation and develop interregional networks that can enhance knowledge transfer and international value chains. Interregional cooperation should be mobilised by bottom up mechanisms and unlocking innovation potential identified by S3 strategies. At present, descriptions of S3 strategies are available on the JRC Smart Specialisation website[6] but those regions who are trying to develop external value chains and collaboration can be specifically identified from the Smart Specialisation Thematic Platforms[7] listed on the JRC's smart specialisation platform. The collaboration through these platforms needs to be enhanced through more attention to cooperation in specific sectors where EU comparative advantage can be achieved.

But the shockwave that has hit the global economy with the health crisis caused by the COVID 19 pandemic and the subsequent economic crisis, positions interregional cooperation in a central role underpinning a new perspective of accelerated transition to a new growth model, constrained by geo-political considerations of strategic autonomy[8] and enhanced resilience to adaptation at all policy levels. The adaptive capacity of place-based strategies (especially for just transitions) therefore becomes more paramount, building on existing regional smart specialisation methodologies.

2. Responding to the consultation questions

1. Thematic areas to be focused on
2. Instruments to unlock interregional innovation investments
3. Types of support
4. Complementary programmes and how complementarities can be encouraged
5. Main market failures that I3 should address
6. Main barriers to value chains

2.1. Thematic areas

The identification of 'thematic areas' can be considered as a 'second best' choice for strategic prioritisation that in most cases requires a more precise (although trans-sector, trans-domain or trans-thematic) identification of activities.[9] The identification of 'strategic value chains' and 'missions', becomes now a better long-term strategic focusing approach. Therefore, the I3 should be an instrument that combines the European strategic directionality based on the climate strategy, the EU's Green Deal, the Digital Agenda and the current Coronavirus crisis, on the one hand, and the prioritisation of innovation and transformation activities on the basis of place-based advantages within this strategic framework on the other. From this the top-down perspective, the I3 should be instrumental in implementing the EU industrial strategy and focus on key areas for industrial transition. The I3 should play a key role in shortening and strengthening supply chains and creating the complete value chains that are crucial to

[5] https://publications.jrc.ec.europa.eu/repository/bitstream/JRC116630/s3p-thematicmanual_-_online.pdf
[6] https://s3platform.jrc.ec.europa.eu/ and more specifically at eye@ris https://s3platform.jrc.ec.europa.eu/map
[7] https://s3platform.jrc.ec.europa.eu/thematic-platforms
[8] See Brueghel Think Tank interview with Charles Michel 28th September 2020 https://www.bruegel.org/events/from-playing-field-to-player-europes-strategic-autonomy-the-number-one-goal/
[9] The identification of the strategic need to develop a European value chain for the electrical battery has now become the standard reference for such strategic policy approach. See https://ec.europa.eu/energy/topics/technology-and-innovation/batteries-europe

strengthen the EU industry, secure innovation capacity and create a strong basis for future business.

Thematic areas in smart specialization strategies need to be narrowed down to more targeted activities that boost regional competitive advantage, capacities, and critical mass. The I3 therefore needs to link into bottom up perspectives developed by the Entrepreneurial Discovery Processes (EDP) implemented by regions within their own smart specialisation strategies but also in interregional mutual discovery of complementarities. These EDPs which drive S3 strategies have provided the thematic partnerships and projects supported by the Smart Specialisation Thematic Platforms and can further focus on interregional co-investment pipelines thanks to the I3.

The platforms provide an opportunity for regions and their dedicated clusters to collaborate, connect and learn which can be supported by the Interreg Europe programmes thus opening up opportunities from bottom-up interregional collaboration in connection with initiatives at EU level to develop EU strategic value chains.

3.2 Instruments to unlock interregional innovation investments

A key criterion for interregional innovation investments are integrated complementary regional specialisations creating innovative value chains. This integration depends on cross-regional collaboration built on mutual understanding of policies and trust and confidence in partners outside the region. The role of smart specialisation strategies integrating a range of instruments and funding steams is essential. The following instruments, initiatives and concepts may be of use in helping to unlock interregional innovation investments.

3.2.1 Innovation ecosystems

A recent EIC Report on Innovation Ecosystems[10] records the challenges and actionable suggestions produced by innovation stakeholders. The challenges are grouped in three major pillars: connectedness of the stakeholders, competence and talent, and capital. Some challenges and actions belong to all three and are treated as crosscutting challenges.

Connectedness between stakeholders, both locally and abroad, is one of the critical challenges for many stakeholders. To unlock the innovation potential from Europe's research potential, the relationship between corporations and start-ups with universities and Research and Technology Organisations (RTOs) must be improved through better and more frequent networking and novel trainings. Innovation must flow beyond the main city hubs. There is a need to improve current networks so that innovation can reach everyone in Europe, improving their livelihoods without leaving anyone behind. This connectedness between all stakeholders must be sustained not only nationally, but across borders, where new coordination tools must be developed, suitable for Europe's incredible diversity and ecosystem complexity. This is where I3 could be useful.

Entrepreneurship and an understanding of how the innovation ecosystem operates must permeate all actors, from students to faculty, researchers, entrepreneurs, investors, and civil servants. A key factor for better competences is developing a great understanding of what is happening in the innovation ecosystem and how it evolves over time. In addition, the understanding of what complementary capacities are available across regions, at European level becomes another critical competence for connecting local actors to other partners. To that end, all stakeholders recognise the need for more and better information on all innovation processes.

[10] A Robust Innovation Ecosystem for the Future of Europe Report on the Results of the Stakeholder Consultation October 2019 – February 2020

Therefore, the present fragmentation of the EU innovation landscape in national systems, but also in European policy is a major handicap in times of strategic decision making. While its diversity will remain an asset the increasing promulgation of policy actions that address the same actors are mark of inefficiency at the European Innovation system level, which can be avoided.

The launch of the I3 can be a catalyst for policy and instrument alignment, with a European decentralized approach. The challenge is to channel the efforts of different DGs for supporting the local eco-systems with 'hub-like' initiatives to the needs, ambitions, and absorption capacity of the local actors. Therefore, the regional eco-systems have to build-up their strategic and operation capacity in cluster platforms or 'hubs'. Technical assistance for this becomes available in a fragmented way because every policy domain tends to re-invent – and duplicate partially – the 'hub' in the eco-system and its European collaboration network according its own policy perspective. This seems counterproductive in view of the proclaimed policy integration and administrative simplification.

3.2.2 Industrial ecosystems

These industrial ecosystems, managed through DG GROW as a new framework for European industrial policy, should bring together crucial players in strategic value chains in alliances: academic and research institutes, suppliers, SMEs and larger companies. Current 'industrial alliances' have produced good results in batteries, plastics and microelectronics. Now is the time to extend to other key areas, for example, a new European Clean Hydrogen Alliance and Alliances on Low Carbon Industries, Industrial clouds and Platforms, and Raw Materials should follow. These alliances aim at ready-made value chains if connectivity between the main stakeholders is achieved.

But this cannot be complete without interregional S3 partnerships. European cluster policies play an increasingly important role in connecting bottom-up strategic cluster collaboration with industrial policy through the active promotion of the role of cluster organisations in co-designing and implementing smart specialisation strategies and embedding a stronger territorial dimension within these alliances.

3.2.3 EIC accelerator

The EIC Accelerator[11] (previously known as the SME Instrument) supports high-risk, high-potential small and medium-sized enterprises and innovators to help them develop and bring onto the market new innovative products, services and business models that could drive economic growth. The EIC Accelerator helps businesses develop a concept into a market-ready product, service or process through funding trials, prototyping, validation, demonstration and testing in real-world conditions, and market replication. Projects can receive between €0.5 and €2.5 million in the form of grants but now the EIC can provide an optional investment in equity (up to €15 million) in addition to the grant. to single for-profit SMEs. As part of the Horizon 2020 and the future Horizon Europe programme, the EIC accelerator lacks any territorial dimension. There should be far more communication between the EIC and the regions where SMEs have been funded. This applies also to the Seal of Excellence[12] which can be awarded to projects which were judged to deserve funding but did not get it due to budget limits. This can help these proposals find alternative funding.

It has been shown that an SME which is part of cluster in a region or where there is a critical mass of similar activities would have a greater chance of success. The I3 may then be an instrument that can

[11] https://ec.europa.eu/easme/en/section/sme-instrument/eic-accelerator-funding-opportunities
[12] https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/seal-excellence_en

support the SME enter relevant value chains outside the region.[13]

3.2.4 The EIT and the Regional Innovation Scheme

The EIT now accounts for eight Knowledge and Innovation Communities. The European Institute of Innovation & Technology (EIT) is an independent body of the European Union set up in 2008 to deliver innovation across Europe. Since its inception, the EIT boasts that it is Europe's largest innovation ecosystem and has supported 3000 ventures, supported 1000 products on the market leading to 13,000 jobs and €3 billion of external investment.[14]

The EIT Regional Innovation Scheme (EIT RIS) is designed for EU Member States and Horizon 2020 Associated Countries in Europe who are modest and moderate innovators (according to the European Innovation Scoreboard), and where Innovation Communities have few or no partners. Strategically, the scheme is an additional offer to these countries to facilitate their engagement with the EIT Innovation Communities.

EIT Innovation Communities engage local organisations to serve as EIT Hubs in EIT RIS countries and regions. These hubs ensure the visibility of the EIT Community and raise awareness of activities and cooperation opportunities for local players. EIT Hubs also liaise with the relevant national, regional and local authorities and facilitate the sharing of EIT Innovation Community expertise with them. To date there are more than 60 EIT Hubs in 18 EIT RIS countries representing EIT Innovation Communities. There is now an expressed aim of the Regional Innovation Scheme to build stronger connections to smart specialisation strategies. This is where the I3 can play a role in linking similar priorities between hubs.

3.2.5 European University Initiative

Universities play a pivotal role in regional innovation ecosystems[15] and the university's new centrality becomes inextricably intertwined with its role of orchestrating multi-actor innovation networks. The university plays a dual function of a local driver for the regional economy offering skills and research but also playing an international role through its network of contacts in Europe and for some universities globally.

The recent European University Initiative,[16] implemented mainly by DG EAC, while focused more on teaching, has developed the concept of transnational alliances of European Universities to become the universities of the future, promoting European values and identity, and revolutionising the quality and competitiveness of European higher education. The alliances include partners from all types of higher education institutions adopting a challenge-based approach according to which students, academics and external partners can cooperate in inter-disciplinary teams to tackle the biggest issues facing Europe today.

So far 41 alliances have been approved which include 280 higher education institutions. Three alliances deal with health and well-being and six cover technological sectors. Thus some of the alliances may be linked to relevant S3 priorities in regions and those regions that have an alliance university could investigate if the alliance topic was linked to their smart specialisation priorities and if so how linkages within the alliance could support collaborative activities. Again, a possible role for the I3.

---

[13] See the Smart Guide to Cluster Policy https://ec.europa.eu/growth/content/smart-guide-cluster-policy-published-0_en
[14] Cited by Martin Kern, Director of the EIT at the Research and Innovation Days 2020
[15] https://eua.eu/downloads/publications/eua%20innovation%20ecosystem%20report%202019-3-12.pdf
[16] https://ec.europa.eu/education/education-in-the-eu/european-education-area/european-universities-initiative_en

3.2.6 Digital Innovation Hubs (DIH)

Only about one out of five companies across the EU are highly digitalised. Similarly, around 60% of large industries and more than 90% of SMEs lag behind in digital innovation. DIHs are one-stop shops that help companies become more competitive regarding their business/production processes, products or services using digital technologies. DIHs provide access to technical expertise and experimentation, so that companies can 'test before invest'. They also provide innovation services, such as financing advice, training and skills development that are needed for a successful digital transformation. The model of DIH has been introduced via DG CONNECT to ensure that all regions can support their SMEs with tailored eco-system services – the regional hub - and provide access to the best services across borders with the network of DIHs.

Grant opportunities, in the DEP for selected 'European DIHs', will focus on improved hub facilities and employment of personnel across all NUTS2 universities. Special focus will be on the key technologies promoted in Digital Europe Programme: HPC, AI, and Cybersecurity. EDIH are also encouraged to develop 'specialisations' in key areas, so that they develop services that are mutually attractive for the more specialised technology and business development needs.

A key role that can be coordinated with the I3 is the 'support to find investments' which will cover access to financial institutions and investors and support the use of InvestEU and other relevant financing mechanisms, in close co-operation with the foreseen InvestEU Advisory Hub and the Enterprise Europe Network (EEN).

At present over 300 DIHs are registered in the 'Catalogue' of DIHs.[17] They constitute a backbone for an emerging support infrastructure for the European Innovation System. The current selection process of candidate European Digital Innovation Hubs, proposed by the member-states has a double focus on state-of-the-art ecosystem development with a one-stop shop function to provide services, and international cooperation in providing access to best facilities and their services across borders. Linked to the development of an effective innovation ecosystem, EDIHs should play a brokering role and bring end-users and potential suppliers of technological solutions into contact with each other for experimentation and testing, or public administrations and GovTech companies to promote co-creation.

Hubs can only become good brokers if they do regular technology scouting. Structured relationships with regional authorities, industrial clusters, SME associations, business development agencies, incubators, accelerators, EEN, EIT Co-location Centres, and Chambers of Commerce will greatly help the brokering function. The online database[18] provides opportunities for digital companies to seek contacts outside the region.

When suitable local partners may not be found in the region, the hubs can network with other EDIHs to find a matching partner elsewhere in Europe. Therefore, the mapping of the competences and services of these hubs becomes a vital strategic capacity, that can be facilitated by the European Accelerator that is foreseen in the EDIH programme. The S3 Platform, hosting the Catalogue of Digital Innovation as well as the thematic Smart Specialisation Platform can play a role in integrating this strategic intelligence in the process of entrepreneurial discovery of co-investment opportunities.

3.2.7 ERA Hubs

Mariya Gabriel, Commissioner for Innovation, Research, Culture, Education and Youth announced at the

[17] See https://s3platform.jrc.ec.europa.eu/digital-innovation-hubs-catalogue
[18] https://s3platform.jrc.ec.europa.eu/digital-innovation-hubs-tool

the Research & Innovation Days in September 2020 the launch of ERA Hubs, as 'regional organisations similar to the EU's Digital Innovation Hubs'.[19] Replicating this model in the field of research and innovation, regions can play a role in coordination of R&D investments and develop their own potential, and be part of a pan-European network to provide all researchers access to the best infrastructures. The Committee of the Regions is a partner for elaborating this model, building on their opinions on the role of regional ecosystems and cross-regional infrastructure to build resilience (reducing brain-drain), with a new generation of smart specialisation strategies. Prioritising competitive strengths will avoid fragmentation of the ERA.[20]

These regional infrastructures connect the domains of research and innovation with the wider systemic transformation dynamics at European scale. The dimension of the internal market that has been the ERA from the start for circulation of knowledge now can be used to bundle efforts for restructuring value chains according to the strategic priorities in the twin transition. It is therefore likely that these research and innovation hubs will share a lot of functions with the digital hubs and the other EU-level initiatives for research, innovation, education, and training. The new governance for this European Research and Innovation Area represents a not to be ignored window of opportunity for streamlining the instruments enhancing the needed co-investment.[21]

3.2.8 Interreg Europe

Interreg Europe helps regional and local governments across Europe to develop and deliver better policy. by sharing solutions and policy learning. Rooted in EU cohesion policy, Interreg Europe supports the implementation of this policy by promoting a large-scale exchange and transfer of experiences, peer learning and benchmarking across Europe.

The complementarity of Interreg Europe with other forms of support focuses on the added value of this cooperation programme against other sources of financing. In some cases, the complementarity may lead to coordination and synergy actions. The value of Interreg Europe is that through its various programmes and projects, it has built a strong network between stakeholders, albeit mainly in the public sector, across Europe. These networks have been and will be invaluable to strengthen contacts between smart specialisation strategies across Europe. During 2014-20, Interreg Europe operations (Policy Learning Platform and projects) were coordinated with the S3 Platform[22] and many Interreg Europe projects deal directly with smart specialisation strategies.[23]

In 2021-27, this operational coordination will be followed up considering that innovation has always been a popular topic in interregional cooperation. At a strategic level, Interreg Europe 2021-27 contribution to smart specialisation could be regarded as a space for experimentation, learning and generation of good practice in smart specialisation strategies that can serve broader purposes. In addition, the interregional policy learning process helps to build capacities for S3 implementation and to exploit synergies between S3 and other EU Funds, including Horizon Europe. Thus, the I3 provides a bridge between the territorial policy dimension (S3) and policies focused on excellence such as Horizon 2020 and EIT projects.[24]

---

[19] See https://sciencebusiness.net/news/commission-launch-era-hubs-boost-regional-innovation

[20] Intervention of Apostolos Tzitzikostas (President of the Committee of Regions) in the policy session of 22 September 2020 '**Towards a new European Research Area: joining forces, aiming higher**' https://research-innovation-days-conference.online/hubs/plenary

[21] See FoSS policy paper 'The ERA and Smart Specialisation' http://www.efiscentre.eu/portfolio-item/friends-of-smart-specialisation

[22] See JRC Technical Paper (2018) 'Synergies between Interreg Europe and Smart Specialisation'

[23] For example, TracS3, S34GROWTH, MONITORIS3, RELOS3, ecoRIS3, CREADIS3, S3CHEM, CLUSTERSS3, MARIE, etc.

[24] The most recent outline of the future Interreg Europe programme 2021-2027 is rather reticent. Under the title 'The complementarity to the Interregional Innovation Investment Instrument', the report notes 'section to be completed later'. See INTERREG EUROPE 2021-2027 Cooperation Programme document Draft Version 1. See https://www.interregeurope.eu/ .

3.2.9. European Cluster Collaboration Platform

European cluster policies are closely linked with smart specialisation.[25] The Cluster Collaboration Platform[26] (connecting 1000 cluster organisations) is an instrument for boosting collaboration and connecting enterprises by using clusters as multipliers. A pilot programme 'European Cluster Partnerships for Smart Specialisation Investment' (ESCP-S3) has been launched, supporting nine partnerships with 57 organisations from 19 European countries. The support includes a set of SME-tools to facilitate the cross-sectoral collaboration: innovation and technical assistance vouchers; IP & innovation management support; knowledge transfer & technological integration support; mentoring, coaching; incubation & acceleration support; brokerage and matchmaking support; hackathons; training, mobility activities; awards and prizes and crowd-funding. This is an important step towards a tailored instrument mix for partnerships. Now cluster platforms can play an important role in the 'industrial ecosystems' that are selected to enhance the development of strategic value chains in new industrial strategy for the recovery.

3.3. Types of support

I3 can play a leading role in providing industrial companies, notably SMEs, easier and more affordable access to networked facilities for piloting and demonstration of new products and services. The final goal is to reduce costs, lower technology uncertainty and to speed up market uptake of new technologies for more advanced industrial production systems and for the establishment of new value chains.

The role of I3 must firstly be to help fill the gap where the right funding support tools are lacking. But this role may be limited by the low level of funding for the instrument. A second more realistic role could be to use the I3 funding to help mobilise synergies with other sources of funding, for example, the EIC accelerator and Digital Innovation Hubs.

In this role, a grant would be the preferred type of support in terms of administrative simplicity up to a certain ceiling of support and type of spending. Therefore, grants represent an essential requisite to generate the investment project flow that will later need other forms of support. Higher funding amounts and more market focused spending could then be part grant, loan and even in some case equity although in dealing with pilot projects across border which have a high potential risk, equity might not always be the best instrument. Whatever type of support, funding must be linked to an effective engagement of companies and partners to participate and co-invest in the development of the projects.

3.4. Complementary programmes and how complementarities can be encouraged

Synergies between EU, national, regional. and private funding for financing industry-led innovation projects are needed to cover the full investment needs. Complementarities can be achieved by having a clear smart specialisation strategy that outlines the competitive advantages of the region and the main priorities for regional investment. These priorities can then be used to start an analysis of the funding landscape so that the priorities can be implemented. Some priorities involving the circular economy, social innovation or energy transition might involve a more inward-looking approach (and local funding) while industrial and technological priorities will no doubt depend on value chains going outside the region. It is here that the I3 will have as strong role to play as a strong catalyst for co-investment and synergies between EU programmes supporting the development of strategic industrial value chains through interregional collaboration. It should facilitate the establishment of interregional pilot infrastructures,

[25] See 'Role of Clusters in Smart Specialisation: Smart Guide to Cluster Policy' https://www.cluster-analysis.org/downloads/smart-guide-to-cluster-policy

[26] https://www.clustercollaboration.eu/

promote industry-led projects, and leverage private investments in new technologies.

It is quite clear that many current and past EU initiatives such as JTIs, JPIs, EIT, EIC, EEN, etc. have often failed to engage fully with a place-based innovation ecosystem approach. But interregional innovation requires a mix of drivers and funding instruments. These instruments vary according to the amount of research or innovation required and distance from markets and customers. But all can play a role depending on the priority area and the industrial sector. Take for example the future Digital Innovation Hubs, these can play a strong role in supporting interregional innovation. Clusters should also be encouraged to provide networking support for industries seeking external links. The development of European world-class clusters connecting regional clusters, networks, and ecosystems. Building on bottom-up, collaborative, and multi-disciplinary approaches, clusters constitute a powerful lever for achieving critical mass in Europe.

Another complementarity programme that should be further investigated is the EIT Regional innovation Scheme.[27] The EIT Regional Innovation Scheme (EIT RIS) is designed for EU Member States and Horizon 2020 Associated Countries in Europe who are modest and moderate innovators (according to the European Innovation Scoreboard), and where Innovation Communities have few or no partners. Strategically, the scheme is an additional offer to these countries to facilitate their engagement with the EIT Innovation Communities.

EIT Innovation Communities (KICs) engage local organisations to serve as EIT Hubs in EIT RIS countries and regions. The primary role of the EIT Hub is to ensure the visibility of the EIT Community and raise awareness of activities and cooperation opportunities for local players representing education, business and research areas. EIT Hubs also liaise with the relevant national, regional and local authorities and facilitate the sharing of EIT Innovation Community expertise with them. To date there are more than 60 EIT Hubs in 18 EIT RIS countries representing eight EIT Innovation Communities. These hubs should be linked to smart specialisation strategies and could play a strong role in the entrepreneurial discovery process and hence the I3.

The success of interregional innovation to a certain extent is the quality of future regional smart specialisation strategies that are clear and transparent, have a clear external vision that is clearly communicated. Support for improved S3s can be delivered by a revamped Interreg Europe programme could also be reshaped to contribute to this general dynamic and enhance its impact significantly in terms of sharing knowledge and transfer of expertise. It could contribute to learn and connect phase activities and policy developments for matching smart specialisation strategies with a clear aim for a long term policy collaboration in a given value chain, constituting as such a strong shadow/mirror support project for approved I3 portfolios, including the development of new and improved regional policies for the demonstration phase and interregional collaboration. In this sense, funding overlaps on the capacity building should be avoided between the second strand of I3 and Interreg Europe.

3.5 Main market failures that I3 should address

Markets alone cannot organise the transition to sustainable, digital, and resilient economy. But the present health or climate crises are system failures that cannot be solved without mending the policy and governance failures that prevent an integrated approach for long-term structural change. Beyond the rating mentioned in the questionnaire, we want to underline that is rather a combination of market failures that make those projects complicated. The main challenge for the modernisation of the economic

[27] https://eit.europa.eu/our-activities/eit-regional-innovation-scheme-ris

structure of the EU is to update its innovation system to be up to the task of system innovation.

Our evidence suggests that a persistent market failure remains at the piloting and demonstration stage of new technologies, especially when innovation is the result of the integration of complementary regional specialisations.

As experienced by the Vanguard Initiative pilot projects, and the thematic S3 partnerships, there is an urgent need to further developing new funding mixes and financial tools that allow joint investments in open innovation-based projects across borders, with a facilitated access to expertise and services for European SMEs. At this moment, there is no suitable instrument in inter-regional, pan-European setting to support the very much needed investments in innovation infrastructure/'industry commons'. We also face a lack of openness of existing schemes for bottom-up projects based on interregional collaboration. The lack of matching with current funding possibilities is a major constraint. Finding a better match is a collective responsibility (regional + national + EU authorities).

Therefore, a cooperative governance of the I3 must be a stepping-stone for this better integration because a limited number of ERDF financed cooperation would not make a difference in the present scattered funding landscape. The I3 can and should act as a lever for policy and instrument integration. The I3 can structure the EDP as a process for alignment of instruments to the needs of the emerging roadmaps of lead-actors for new or renewed value chains.

3.6. Main barriers to value chains

The present policy attention for restructuring global value chains, building more strategic autonomy and shaping resilience with more local activities requires also a shift in policy strategies. From a smart specialisation perspective, one of the main barriers to developing value chains is the inward-looking approach of many S3 strategies. A key barrier is the lack of international cooperation of SMEs. They are central to the EU's twin transitions to a sustainable and digital economy. They are essential to Europe's competitiveness and prosperity, economic and technological sovereignty, and resilience to external shocks. As such, they are a core part of the achievement of the EU's industrial strategy.[28] Therefore, an industrial policy only dealing with the 'big actors' in industrial alliances will not be able to deliver the twin transition alone. The broad population of SMEs is best organised through appropriate cluster platforms that are the interface between these actors and the policy and international environment. The interregional partnerships that are often designed by inter-cluster cooperation play a vital role in multiplying the European flagship actions by engaging all actors in all regions, because there is a role for all with smart specialisation.

There are many factors that explain SME reluctance to export and collaborate outside the region such as a lack of knowledge of opportunities, a lack of contacts and networks in other regions and countries and most often cited complex administrative procedures. The I3 cannot be expected to remove these barriers overnight but here it must collaborate with SME policies, industrial strategies and new political initiatives such as the EIC Forum and the EU Start-up Nations Standard[29] which has the ambition of making Europe the most attractive Start-up and Scale-up continent. Effective SME policy has a strong place-base nature that is not yet fully understood by the largely place-neutral European SME policies. A multi-level governance of internationalization of SMEs should refrain from considering SMEs as space-free agents that mainly need individual capacity building support. This is an important barrier for promoting value

[28] An SME Strategy for a sustainable and digital Europe Brussels, 10.3.2020 COM(2020) 103 final https://ec.europa.eu/info/sites/info/files/communication-sme-strategy-march-2020_en.pdf
[29] https://ec.europa.eu/digital-single-market/en/startup-europe#

chain approaches that consider all actors in client-supplier and network relations. European cluster policies for smart specialization, that connect SMEs to complementary agents, are under-utilised as policy lever in industrial transformation policies.

Therefore, smart specialisation strategies must pay more attention to international partnerships, exchanging knowledge and linking with industrial strategies, SME policies and finance initiatives such as InvestEU. The I3 can, in particular, play a bridging role in financial blending for advancing projects at different stages in the investment pipeline, in a way that single companies and smaller partnerships can't do themselves, by providing tailored support. For example, the SME window of InvestEU will support equity financing for SMEs and small midcaps in areas of special EU policy interest such as space and defence, sustainability, digitalisation, innovation, gender-smart financing, deep and green tech.

This tailored approach cannot be managed as a single programme managed by one DG or agency. The governance model of the I3 should include partnerships with existing institutions such as the Enterprise Europe Network organisation present in most European regions which can support contacts in other regions. But most important it involves a close cooperation of the different policy domains that commit to bring their instruments in line for restructuring European value chains, with supporting co-investment roadmaps of interregional partnerships.

4 Conclusion

Friends of Smart Specialisation welcome this new instrument as a step forward in integrating the smart specialisation strategies in the European investment strategy for the twin transition. It is a long awaited missing-link to promote complementarity through co-investments across-borders in European value chains. But due to its limited scope it has an extra reason to use the funding as a topping-up of regional and other funds that deliver common strategic goals. Therefore, the I3 must

- actively seek coordination between the services that have complementary instruments to ensure a full and consistent European support package for the implementation of joint S3 strategies for specific strategic value chains;
- set up a 'co-governance structure between the lead-actors of the interregional partnerships on the one hand and on the other the most important services dealing with the European policy mix for the investment pipeline of the partnerships. This can be inspired by the experience of the S3 thematic platform for Industrial Modernisation;[30]
- develop interregional partnerships with regions with the most commitment for smart specialisation, with a strong S4, dedicated cluster platforms and funding channels for priority value chains;
- systematically seek synergies with instruments of other policy domains and policy levels. This is a learning experience that should be shared and used at European governance levels dealing with the twin transitions.

Contact information[31]

Richard Tuffs *richardtuffs@ymail.com*

Jan Larosse *jan.larosse@telenet.be*

Dimitri Corpakis *d.corpakis@gmail.com*

[30] See https://s3platform.jrc.ec.europa.eu/steering-committee-meetings

[31] FoSS has a mailing list for our activities so let us know via e mail if you would like to be included.