



Thought Leadership Seminar:

‘Specialization and collaboration in the European Network of DIHs:

Leading the way to a European Innovation Ecosystem and Infrastructure’

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Abstract:

Digital Innovation Hubs have emerged as a European approach for more effective diffusion of digital technologies, skills and offering supporting services for digital transformation, in particular in SMEs and more recently also in public administration. This approach is based on state-of-the-art innovation ecosystem policy and best practices of innovation support infrastructures.

To support sustainable collaboration in the EU ecosystem an alignment of ~~selected~~ hubs in a European framework of specialisation and collaboration is required. In this paper we suggest that the network of DIHs and future EDIHs can be a trailblazer of the wider European Innovation Support Infrastructure for transitions by means of ‘collaborative specialisation’.

The DIH network can be a trailblazer for a truly European Innovation Support Infrastructure – providing links to capacities, facilities and expertise - for the twin transitions and the common challenges to make the EU more resilient. How to find the right focus and complementarities requires a leadership approach on collaborative specialisation.

1. Introduction

Digital Innovation Hubs – and similar entities such as R&I test beds, field labs, pilot lines etc. – have become an important instrument in the innovation systems in many European countries, first in the manufacturing sector and subsequently in a variety of other sectors from agriculture and chemicals to health. Across Europe we find now over 400 DIHs¹. The rapid growth in number reflects the widely felt need for such hubs as the cutting edge of innovation, but it has occurred in a rather uncoordinated fashion. As a result after five years of developing DIHs we now find in Europe a highly dynamic and unstructured landscape with DIHs that serve sectoral, local and regional needs, (supra) regional coordinating hubs, national platforms and cross-border initiatives. DIHs cannot be everything to all people. As they gain importance within a place-based innovation policy they will need to specialise and collaborate. The upcoming addition of the ‘European’ DIHs (EDIHs) provides another rationale for looking again at patterns of specialisation and collaboration within and across borders.

Digital Innovation Hubs were proposed as one of the five pillars in the Digitising European Industry initiative, co-developed between the EC (DG Connect) and the Member States since 2015. Building on previous efforts to support the technological development and innovation of companies, the DIHs combine technology services with business and ecosystem services to support innovative companies in their digital transformation. DIHs support industry in their digital transition through **one-stop shops** in every region and a strong network to ensure that every company can have **access** to these opportunities. Further discussion has emphasised the **eco-system**, and the place-based approach for these hubs, and their **connection with smart specialisation strategies (S3)**. The conceptual distinction between ‘competence centres’, the ‘DIH’, the ‘regional network of DIHs’ and the ‘trans-european network’ of services has brought further clarification² in line with the eco-system and place-based approach to innovation. Smart specialisation strategies (S3) and the DIH network are now the only **EU-wide regional innovation policy frameworks**.

¹ <https://s3platform.jrc.ec.europa.eu/digital-innovation-hubs-catalogue>

² ‘Defining Digital Innovation Hubs as part of the European DIH network’, DIH Net paper

With the upcoming Digital Europe Programme (DEP) and the new European Digital Innovation Hubs, the DIH strategy further to support the objective of uptake and deployment of digital technologies in Europe. This implies a capacity to **quickly diffuse the advances made in one domain to other domains and across borders**. Member States are expected to **nominating** candidates for the selection of 'European Digital Innovation Hubs' for this Programme³, therefore engaging both the regional and national policy levels.

With the start of the new programming period, the Green Deal and the post-Corona recovery plan there is a need to **anchor** the DIH in the green and digital transformations and try to **consolidate** the strategic approach of the DIH network that has emerged in the past few years.

In order to share the same understanding of the challenge the DIH design has to respond to basic questions on how to handle different **types of specialisation** at the level of the European innovation eco-system: the geographical coverage, the distribution of services, the focus on specific domains, such as technology, sector, application or mission.

The key issue is how to combine specialisation and collaboration, and how to make this kind of cooperation the cornerstone of a vision on the role of innovation support infrastructures for the twin transitions.

2. Purpose of the document

This document is an input for a new learning cycle on the content and implementation of specialisation and collaboration processes in the context of DIHs and the imminent launch of the European Digital Innovation Hubs (EDIHs). The Digital Europe Programme provides a policy space for the acceleration of specialisation and collaboration for the EU-wide implementation of digital transformation across the whole population of DIHs. The 'Thought Leadership' process aims at structuring this learning process in two different building blocks. It aims to explore how DIHs (in particular EDIHs) can practically collaborate, and offer suggestions for future policy development.

- 1) A first building block analyses the challenges of DIH: to be a one-stop shop for SMEs in their regions vs. the need to specialise in certain technologies, domains or sectors; to diffuse but also advance digital technologies; to focus on 'digital' and integrate this in all domains; to specialise and to collaborate. In order to structure best practices and guidance we propose the 'collaborative specialisation' approach (including practices for discovering smart complementarities with mapping and matching) in a leadership vision for DIH.
- 2) A second building block analyses the future of the DIH in the evolving policy framework for the twin transition to a digital, green and resilient economy. The leadership vision aims at anchoring the DIH in a shared narrative on the need for a European Innovation Infrastructure to support the digital transformation as a backbone of the new growth model.

These building blocks will be further validated and developed by organizing a working session and then a thought leadership webinar. We will also explore the interest of the community in working groups on the topic.

³ European Digital Innovation Hubs in Digital Europe Programme Draft working document 05-05-2020

3. Vision⁴

Collaboration and specialization have been discussed in the past, but given the upcoming Digital Europe Programme and leading European strategies like the Green Deal it is important to further develop the ideas of how collaboration and specialization can be organized both at the operational (practical) level of the (E)DIHs and at the policy level. What are possible policy options and recommendations to support the development of a collaborative European innovation ecosystem and sharing of infrastructures.

1. **Effective specialisation and collaboration strategies at European level.** A key challenge for the operationalisation of the DIHs and EDIHs is to integrate the seemingly differing requirements of being a regional **one-stop-shop** addressing the needs of local SMEs, and of offering added value by their **specialisation** to SMEs and other actors across borders. This can only be achieved by **place-based innovation strategies** embedded in the regional innovation ecosystems **that are interconnected at European level**. (E)DIH therefore should be linked to the regional Smart Specialisation Strategies as a common European policy framework for cooperation for transformation. The coming selection of European DIHs (EDIH) provides a **mandate** for these selected consortia to co-develop a European network of innovation support and connect infrastructures and related services to enhance the digital transformation within regions and across borders. Specialisation and cooperation in the European network of EDIHs can be organised around **mapping** the unique competences in each region and **discovering⁵** the complementarities in the European network for supporting business opportunities in new value chains for a green, digital and resilient economy.
2. **A trailblazer of the European innovation infrastructure.** European cooperation for systemic transformation requires a shared narrative incorporating the role of different European programmes and policy levels. This policy narrative will be a crucial element to allow long-term expectations for support entities like DIHs and **to align investments in complementary infrastructures**. The upcoming European Digital Innovation Hub programme is a window of opportunity for European innovation policy **to accelerate the pace towards a collaborative European Innovation System Infrastructure**. This innovation infrastructure is the backbone for co-developing new value propositions, especially in strategic areas for European growth, through the diffusion of innovation, the deployment of key technologies, access to demonstration activities, pilot actions and the testing of solutions to challenges (at higher TRL). There is also an opportunity to connect the future EDIHs with the present discussion on the new role of the European Research Area and the introduction of 'ERA Hubs', which are also exploring how to mutually share access to (specialised) infrastructures and services⁶.

⁴ Ideas contributed by Friends of Smart Specialisation

⁵ The 'Entrepreneurial Discovery Process' is a governance mechanism to ensure that stakeholders that want to commit their resources for future growth opportunities of the region, are fully involved in the strategic prioritisation and implementation.

https://www.researchgate.net/publication/339068135_Smart_Specialisation_at_work_The_entrepreneurial_discovery_as_a_continuous_process

⁶ https://ec.europa.eu/info/news/era-communication-sets-pace-efficient-uptake-research-and-innovation-results-2020-sep-30_en

4. Specialisation and collaboration from the DIH perspective

4.1 Specialisation in the DIHs

A key challenge for the operationalisation of the upcoming selected EDIHs is to integrate the seemingly opposite requirements of being a regional **one-stop-shop** addressing the needs of local SMEs, and of offering added value by services in areas of **specialisation**, also to SMEs 'abroad'. The profile of 'first line' adviser and general support is different from 'specialised' expert for specific domains. The diffusion of the best available technology (specialization) across regions will ensure high quality services, close to the frontier. By collaborating on EU level, DIHs can further develop their focus area while at the same time providing access to expertise and capacities of other DIHs and learn from each other.

To discuss these questions of specialisation and collaboration, it is necessary to distinguish different types of 'specialisation' seen within the DIHs and how this typology relates to 'smart specialisation'. In the experience of DIH we see **four types of specialisation**⁷:

Technology specialisation: DIHs often focus on a specific technology such as robotics, AI, HPC and offer services connected to these technologies to different sectors. Depending on the state of technology development (TRL levels) DIHs may need to focus on technology development, testing and prototyping and/ or on business development. With the EDIHs and DEP for instance, the focus is on uptake of technologies in general i.e. closer to technology deployment⁸.

Sector specialisation: many DIHs focus specifically on an economic sector in accordance with the strengths of the region. We find DIH addressing digitization in manufacturing, in healthcare and in agriculture for instance. We also see hubs **combining sector and technology specialisations**: e.g. hubs focusing on robotics for healthcare. The DEP for instance puts a focus on AI, HPC, cybersecurity but also includes other technologies and recognizes the importance of sector focus. This focus should be based on competitive strengths and addressing future needs of the local ecosystem and the integration in European value chains.

Service specialisation: DIHs provide four types of services: ecosystem, business, technology, skills development. But DIHs will only be able to provide direct, first line support to SMEs in a limited number of technologies or sectors. For other questions that they cannot provide direct solutions; they may either provide information to SMEs or broker support from other institutions (DIHs, universities, RTOs) inside or outside the region.

Regional specialisation: Many regions have adopted smart specialization strategies that aim to integrate local supply side (resource availability / sector strengths) and demand side (specific priorities for societal needs such as ageing or climate change) issues. It is important that DIHs build on and

⁷ We single out 'technology specialisation' and '(economic) sector specialisation' as different sub-types in 'domain specialisation'. They have established classifications (such as IPC patent codes and NACE codes). 'Application areas' are demand-side specialisation areas with less clear classification. Preferred 'thematics' (often policy priorities) is also a way to distinguish domain specialisations.

⁸ See <https://consultation.onlines3.eu/2-6-specialisation-indexes>. 'Specialisation' of an entity (company, region, country, ...) compares the share of a technology across all technologies (in terms of expenditures or patents etc) in this entity with the share of this technology across all entities.

This relative specialisation reveals the comparative advantage of the entity.

further strengthen the smart specialization strategies of regions. A DIH will be geographically focused and has a mix of services that is also specific. But the 'domain specialisations' (will be the most important characteristic for aligning efforts with other DIHs to support ecosystems and value chains. Projects addressing specific value chains will combine different supply and demand-side specialisations.

4.2. Connecting Smart Specialisation Strategies and DIHs

'Smart specialisation' is one of the main specialisation and collaboration mechanism currently in place in Europe. Compared with the types discussed above, 'Smart specialisation' is not just a 'functional' distinction in the way eco-systems are structured. It is a policy approach for prioritising public innovation investments in activities that are identified (with the Entrepreneurial Discovery Process⁹) to be strategic for future economic (sustainable) growth. Business innovation support by the public (including cluster platforms and support infrastructures) is earmarked in smart specialisation strategies for specific domains that are of strategic importance for the region's economic development and international competitiveness. The identification of these priority domains and activities is a 'political' (stakeholder-based) preference for future looking investments in the region. Smart specialisation investments in principle combine different funding sources because interregional cooperation in new value chains requires a multi-level support.

Many DIHs are connected to the Smart Specialisation strategies in their countries and a report from JRC also points that many DIHs are also participating in the consultation processes or even the drafting of the S3. This becomes ever more important with the DEP. It is already foreseen that member-states can use structural funds (ERDF) for co-financing the set-up of EDIHS¹⁰.

Given that ERDF funds are connected to S3 strategies, the cross regional collaboration of DIHs becomes intertwined with **interregional partnering for implementation of smart specialisation strategies**. The operationalisation of services across borders will always have to be fitted in other regional, national and European programmes¹¹.

4.3. Collaborative specialisation in the European DIH Network with 'mapping and matching'

The digital transformation requires a quantitative and qualitative upgrade in diffusion efforts. How can the DIH network live-up to this task? On the basis of experiences in S3 partnerships with the model

⁹ See <https://s3platform.jrc.ec.europa.eu/entrepreneurial-discovery-edp>;

<http://www.know-hub.eu/knowledge-base/videos/entrepreneurial-discovery-process.html>

¹⁰ "A prerequisite for investments of ERDF in Digital Innovation Hubs for services under categories "Test before invest (in digital technologies)" and "(Digital) skills and training" is that these are fully supporting the regional or national smart specialisation strategy" 'European Digital Innovation Hubs in Digital Europe Programme Draft working document 22-10-2020', p14, <https://ec.europa.eu/digital-single-market/en/european-digital-innovation-hubs-digital-europe-programme-0>

¹¹ The challenge is to avoid a fragmentation of policy and administrative frameworks that burdens the build-up of a long-term strategy for EDIH (need to go shopping around!). Besides ERDF also EAFRD can be used for co-financing the 50% DEP-funding. Horizon Europe support companies that work with DIH; DIH can be intermediaries to additional Invest EU financing. The most important resource might become the Recovery and Resilience Facility that labels 20% of funding for digital (including DIH). But this diversity also hinders a common DIH mission.

'learn-connect-match-commercialise'¹², the 'mapping' and 'matching' have proven to be crucial steps to set-up connections between competence centres in joint projects for testing and demonstration of new solutions. Interregional collaboration for smart specialisation can develop into 'collaborative specialisation' when the competitive specialisations in regions become aligned¹³.

This capacity to align can develop organically from the core functions of DIHs. The DIHs need to make a continuous mapping at regional level of relevant infrastructures and services and of competences of their relevant partners to offer the best support to digital transformation journeys. The journey starts with a **common challenge or a mission** that urges for cooperation, because the different organisations cannot do it alone and are open to find partners with complementary specialisations. This continuous monitoring therefore becomes also the basis of collaboration with other DIHs through **exchanging and combining mappings** of their best assets in specific value domains of common interest.

The future 'Digital Transformation Accelerator'¹⁴ might catalyse such discovery process of joint opportunities among EDIHs with appropriate **technical support for mapping and matching**. Starting from a challenge, the mapping exercise starts a roadmap for partnering in specific value creating actions (i.e. demonstrating and testing digital innovations with combined efforts). The mapping is therefore a method for matching the partners that are complementary for high-class services (and also to identify overlaps that might need better differentiating of the offers). To prepare a collaborative specialisation framework within the network of European Digital Innovation Hubs such a process of mapping and matching can be put in motion already at an early stage, starting from the experience of the thematic smart specialisation platforms¹⁵ and the use of the Catalogue as a matching tool.

The empirical knowledge on the best practices for collaborative integrated approaches in deployment of technology for targeted use, has to be studied. This experience is now scattered across many collaborative programmes. The present support actions (like I4MS, etc.) and umbrella organisations for support infrastructures (like EBN, IASP, Cluster Collaboration Platform) and platforms for cooperation (like the S3 thematic platforms) can be partner in this empirical finding of such strategic capacity. EEN is already designated to be a key partner¹⁶. But a way forward to accelerate learning about collaborative specialisation, already in the 2021 preparatory period, is to task the future EDIHs

¹² <https://www.s3vanguardinitiative.eu/pilotinitiatives>

¹³ www.interregeurope.eu/policylearning/news/8696/interregional-collaboration-for-smart-specialisation-methodological-tools/?no_cache=1&cHash=e4c69f7fdef08d0b9dc0b7fc91ea6c29

¹⁴ "The organisation of this collaboration will be supported through a support facility called the "Digital Transformation Accelerator". This name signifies the importance of this action: it should animate all networking and collaboration activities and through that accelerate the digital transformation everywhere in Europe", in 'European Digital Innovation Hubs in Digital Europe Programme Draft working document 22-10-2020'. See <https://ec.europa.eu/digital-single-market/en/european-digital-innovation-hubs-digital-europe-programme-0>, p x

¹⁵ Methodological Manual, S3 Platform, <https://s3platform.jrc.ec.europa.eu/-/methodological-manual-developing-thematic-interregional-partnerships-for-smart-specialisation?inheritRedirect=true>

¹⁶ Annex - Seamless Collaboration Between Enterprise Europe Network And European Digital Innovation Hubs, in 'European Digital Innovation Hubs in Digital Europe Programme Draft working document 22-10-2020'. See <https://ec.europa.eu/digital-single-market/en/european-digital-innovation-hubs-digital-europe-programme-0>, P 40

to further describe their focus in a joint mapping of specialised infrastructures across regions in support of strategic value chains or missions¹⁷.

5. Specialization and collaboration from a policy perspective

5.1 Role of the DIH network in the development of a European Innovation System

The new DIH pillar of the DEP is a window of opportunity for innovation policy in Europe to accelerate the pace towards a more integrated European Innovation System Infrastructure with a core of European DIHs with a common European mission. This innovation infrastructure should aim at developing new value propositions, in particular, in strategic areas for European growth, with the deployment of technologies, demonstration and testing of solutions to challenges (higher TRL).

A systematic interconnection of such facilities and services for deployment is lacking in the EU. The establishment of this European innovation infrastructure is now one of the crucial conditions to close the innovation gap with revamped European innovation policies that fully engage all resources to the common challenges outlined in the Green Deal and digital transformation, and needed for the recovery of our economies after the pandemic

The ESFRI¹⁸ programme is already providing a core of the European research infrastructure, but the DIH can be the start of a Europe-wide approach to deployment, go-to-market and solutions for mission-oriented research and strategic innovation. That is because the DIH is a connector of the different functions that are required for supporting the digital transformation in companies and value chains. In addition, the EDIH is also a connector of the digital eco-system with policy makers at regional, national and European level. This gives them a unique position, that only can be fulfilled with their organisation as a well-functioning network.

5.2. The role of the EDIH in particular

Through the 'Catalogue of Digital Innovation Hubs'¹⁹ already more than 400 organisations have signalled themselves to play a role as a DIH. This shows the potential for a European policy framework for DIH. The DIH programme wants to achieve Europe-wide coverage for support services, but also European added value with a programme logic expressed in selection criteria for networking and specialisation for European DIHs.

The coming selection of European DIHs is providing, therefore, a **mandate** to the selected consortia to co-develop a European network of technology infrastructures and related services to support the digital transformation in the regions and across borders.

DIH mainly have a role in the diffusion of state-of-the-art digital technology and innovation. Each EDIH can provide the necessary scale in each region for an integrated deployment approach by means of strong consortia of competence centres, professional innovation service providers and strong local networks for additional services and financial leverage. But the 'European added value' is in their interregional specialisation and cooperation.

¹⁷ Missions are defined in Horizon Europe (https://ec.europa.eu/info/horizon-europe/missions-horizon-europe_en); strategic value chains are identified in European Industrial Ecosystems (https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/european-industrial-strategy_en)

¹⁸ <https://www.esfri.eu/esfri-roadmap-2021>

¹⁹ <https://s3platform.jrc.ec.europa.eu/digital-innovation-hubs-tool>

But the funding of European functions of digital hubs is constrained by their national scope and by the limited European resources for DIH networks. To this end the business model for the sustained functioning of these hubs and of their network must be a central focus in this formation period. Is EU money just another source of project funding for these 'hubs' (as ad hoc consortia)? Or can the programme initiate a more strategic/structural approach for sustaining a European innovation infrastructure at medium and long-term? Therefore, the European DIH network has to gain recognition as a common resource from different policy levels that share the same European strategic goals. Different instruments can contribute to a stable funding mix. The European DIH network is a trailblazer, provided it can deliver an efficient and effective mechanism to align resources for common challenges with collaboration and specialisation.

5.3. DI Hubs and ERA Hubs: towards a new narrative for shared innovation infrastructure at EU level

The success of the DIH network is a **shared ambition and responsibility** for policy leaders (supporting the network with instruments at regional, national and European level) and entrepreneurial DIHs (driving the network potential to European scale). There is a need to have an integrative policy framework for the different funding sources and tools of different policy domains and levels. But therefore they have to share the **same or similar narrative**.

The previous analysis has tried to clarify the role of DIH as one-stop shops as a diffusion policy, and their internationalisation in perspective of 'collaborative specialisation' to cover complementary support actions in the development of specific European value chains. The European Network of DIHs has the potential to be a key enabler for that. This collaborative specialisation needs an accommodating policy framework that should be provided by a combined top-down and bottom-up approach towards the role of innovation infrastructures. Green Deal and European Industrial Policy are giving direction. Smart specialisation strategies are a bottom-up policy approach towards aligning specialisations across borders and combining assets to avoid fragmentation.

The streamlining of the different European policy initiatives on 'hubs' is a success condition for the necessary 'top-down' policy framework that has a role in providing direction. A core feature in this long-term vision is to combine the technology innovation approach (AI, HPC, etc) with a solution based approach. Therefore integrating different technologies for common missions and solutions for industry and society. This requires integration of policies for core digital technologies with policies for other (domain specific) technologies and their infrastructures. These will become more and more digitised in their operation. This integrated technology infrastructure is about a network of flexible integration of the necessary services for a tailor-made support to new value creation in promising areas for regional, national and European sustainable growth. Policy silos that are hindering this are a system failure.

In order for the EDIH initiative to play its role as trailblazer of the European innovation infrastructure and European cooperation for systemic transformation there is a need for a shared narrative about European innovation cooperation across policies and programmes at European level. This will be a crucial element for long-term expectations that can structure new business models for the DIHs.

During the Research&Innovation Days Commissioner Gabriel announced the launch of ‘ERA Hubs’, as “regional organisations similar to the EU’s Digital Innovation Hubs”²⁰. This is a welcome evolution, provided it avoids duplication. In the EC Communication of 30 September 2020 on ‘A new ERA for Research and Innovation’ this ambition is formulated as: “Based on a mapping of existing entities, and the analysis of potential gaps, an *ERAHubs* initiative could be developed, building on existing capacities, such as the Digital Innovation Hubs and clusters, and linking to the Enterprise Europe Network and StartUpEurope, to provide an interconnected knowledge space. This will facilitate collaboration and exchange of best practices, with the incentive to maximise the value of knowledge production, circulation and use.”²¹ In addition initiatives have been announced to ‘establish a new governance structure for Technology Infrastructures’²², as well as ‘strategic support to regions and cities’²³ and to ‘support Member States to better integrate researchers in smart specialisation strategies in cooperation with industry’²⁴. These ideas are closely related to the objectives of DIHs and it will be important that these plans are connected to and further enhance already existing mechanisms such as the DIHs.

This new ERA can lay the foundation for a real ‘European Research and Innovation Area’ that integrates all instruments for transformative policies, not only those of the research domain. In particular the ‘governance of technology infrastructures’ can benefit from the input of the DIH network as a stepping stone for the integrated European innovation infrastructure for the twin transition. These technology infrastructures connect the domains of research, innovation and industry with the wider systemic transformation dynamics at European scale. It is therefore very likely that these ERA hubs will share a lot of functions with the digital hubs and the other EU-level initiatives for research, innovation, education and training to support eco-systems. A joint narrative has to avoid unnecessary duplication and fragmentation, in order to ensure high-quality infrastructure and services²⁵.

²⁰ See <https://sciencebusiness.net/news/commission-launch-era-hubs-boost-regional-innovation>

²¹ “The Commission will: ... Develop and test a networking framework in support of Europe’s R&I ecosystems, building on existing capacities, in order to strengthen excellence and maximise the value of knowledge creation, circulation and use by 2022.” COMM(2020) 628, p. xx

²² “The Commission will: Support ESFRI to work towards a world-class research infrastructures ecosystem focusing on the broader range of the EU’s policy priorities and improve its governance to address the broadened focus of its activity by the end of 2021, and establish a new governance structure for Technology Infrastructures. COMM(2020) 628, p. xx

²³ “Strategic and coordinated support will also be offered to regions and cities building on successful initiatives such as the *Knowledge Exchange Platform*²³ (together with the Committee of the Regions) and the Science meets Regions initiative. These will be upgraded to a strategic level ensuring an effective dialogue for setting priorities and promoting synergies between R&I instruments and education and training with adequate mobilisation of cohesion policy funds.” COMM(2020) 628, p. xx

²⁴ The Commission proposes to: ... Institute a dedicated work stream in the ERA Forum for Transition (i) to promote and monitor access to excellence of researchers and institutions from Widening Countries, with Cohesion Policy support, (ii) to support Member States to better integrate researchers in smart specialisation strategies in cooperation with industry, and (iii) help them design measures to support researchers in Widening Countries to improve their skills for excellence in the labour market. This should support low R&I performing countries to increase the excellence of their R&I systems. Member States lagging behind the EU average on highly cited publications should reduce the gap to the EU average by at least one third in the next 5 years. COMM(2020) 628, p. xx

²⁵ ‘Smart specialisation’ was developed in DG RTD as a response to fragmentation and duplication in the field of public R&I investments for national innovation strategies (see Innovation Union Flagship, xxx), but later abandoned to cohesion policy only. “Member States willing to increase the performance of their R&I system towards excellence should be encouraged and supported, building on dedicated Horizon Europe measures and complementarities with smart specialisation strategies under Cohesion Policy.” COMM(2020) 628, p. xx

The new governance for this European Research and Innovation Area represents a window of opportunity that should not be missed for streamlining the instruments for needed massive co-investment.²⁶ A new ERA can benefit from the input of the DIH network as a stepping stone for the new European innovation infrastructure supporting the twin transition.

Next Steps

‘Europe’s Digital Decade’ is now a stimulating policy context for advancing more quickly with setting up the European innovation support infrastructure that should become the backbone of European transformation policies.

With the Thought Leadership approach the FoSS and DIH Net contribute to the ongoing policy development with the experience and expectations of the DIH Community on internationalisation and collaboration.

Therefore this paper will be a reference for a first **working session**, where the ideas are discussed with a small group of people.

Based on feedback, further steps can be identified and will be consider (e.g setting up a **webinar** and a **working group** on different aspects of the vision for specialisation and collaboration in a European infrastructure network). This exploratory work will in particular focus on the implementation of the ‘mapping and matching’ methodology for collaborative specialisation, and the need of a joint narrative for the European Innovation Support Infrastructure.

²⁶ See Foss policy paper ‘The ERA and Smart Specialisation’ ([www. xxxx](http://www.xxxx))