

Mainstreaming Smart Specialisation in Europe

An overview of Friends of Smart Specialisation 2020 policy papers

Friends of Smart Specialisation

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Final

Table of Contents

1.	Introduction.....	3
1.1	Facing the pandemic.....	3
1.2	Changing paradigm.....	4
1.3	Regional innovation ecosystems and smart specialisation	5
2.	Background to Smart Specialisation.....	5
3.	What smart specialisation offers.....	7
4.	The European Green Deal	9
4.1	Why smart specialisation is an intrinsic element of the European Green Deal	9
5.	EU Industrial Strategy.....	10
5.1	What is ‘new’ in the new industrial policy?.....	10
6.	Smart Specialisation and the EU Semester	13
6.1	A new economic governance for European value chains.....	13
6.2	The European Semester with ‘Smart Recovery Plans’	14
6.3	How to fit smart specialisation in the European Semester	14
7.	Smart specialisation and the EU’s cohesion policy	15
7.1	From S3 to S4.....	15
7.2	Smart Specialisation Strategies 2.0	16
8.	Interregional Innovation Investment (I3) supported by the ERDF	18
9.	The European Research Area and Smart Specialisation.....	19
9.1	Improving and modernising ERA governance: what smart specialisation can bring to the ERA table	20
9.2	ERA Hubs and smart specialisation	21
10.	Towards a new innovation policy framework for Europe	21
11.	Contacts.....	23
12.	Bibliography for 2019 and 2020	23

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Friends of Smart Specialisation¹

1. Introduction

1.1 Facing the pandemic

2020 has certainly been an atypical year and it is too early to tell how the shock of the COVID-19 pandemic will contribute to new thinking on economic and social policy. We are in uncharted territory. But the reaction of the European Commission with the Next Generation EU recovery package is in line with that of the new growth strategy announced in the European Green Deal, launched in December 2019.

Although COVID-19 restrictions basically closed down face-to-face meetings from March 2020, this has not stopped a rich policy debate at the European level for the start of the new programming period, including EU industrial policy, the new ERA, cohesion policy and new instruments such as the interregional investment instrument and European digital innovation hubs. Friends of Smart Specialisation (FoSS) have contributed to these discussions through policy papers, responses to consultations and through presentations in and contributions to relevant webinars.

This paper summarises the key points of our contribution to these discussions which have always started from the recognition of place-based nature of innovation as a driving force of economic development across the EU. Throughout the various policy discussions, FoSS have highlighted the indispensable role of smart specialisation strategies in any European transformation project, thereby illustrating the need to mainstream the smart specialisation approach across all transformative policy fields, in particular: research, innovation, industrial and cohesion policy. This requires improved multi-level governance of smart specialisation both in terms of political buy-in and administrative capacity across all transformative policy fields at European, national, and regional levels. Therefore, we welcome the development of ERA-Hubs as a means of coordinating research and innovation towards common missions at the EU level.

Mainstreaming smart specialisation (S3) is more relevant than ever at the time huge investments for transformation are needed and fiscal policies have to balance recovery and rigour. Firstly, mainstreaming smart specialisation can overcome the fragmentation of innovation policies by the alignment of smart complementarities in innovation investments across Member States and regions. Secondly, mainstreaming S3 unleashes transformative power for the joint entrepreneurial discovery of new investment priorities for strategic European growth areas. Thirdly, smart specialisation provides a balanced governance mechanism for co-investment combining the bottom-up discovery of opportunities with top-down European ambitions.

This overview of our 2020 policy contributions provides a context for the FoSS 2021 policy agenda that will still focus more on the role of smart specialisation as a key driver for transformative policies and investments to

¹ Friends of Smart Specialisation is 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. This paper was collectively written by Dimitri Corpakis, Jan Larosse and Richard Tuffs. For more information see <http://friendsofsmartspecialisation.eu/>

enable upscaling of place-based innovation investments at a systemic level. This is an invitation to all Europeans to combine efforts to position smart specialisation as European federative policy.

1.2 Changing paradigm

Since the 2008 financial crash which has led to a decade of catching up to the previous levels of GDP and living standards, we have been observing increasing inequality both within societies and between territories – a trend that is likely to be exacerbated by the health crisis. The rise of populism has shed light on the ‘places that do not matter’² starved of both public and private investment. At the European level this has led to conflict between budget rigidity and cohesion. But the health crisis has dramatically twisted the order of priorities in budget policy with a new understanding of the social dimension as a success condition of any ‘just’ transition. The new growth model is driven by transformative investments. Smart specialisation is balancing budget efficiency (macro-economic stability) with a recovery policy for the future (system innovation).

This paper examines the role of smart specialisation within this changing paradigm which is reflected in new overarching policies on sustainability (the Green Deal³) and industrial development (the New Industrial Strategy⁴) which connect up with changes in cohesion policy and a new direction for the European Research Area.⁵ The combination of these evolving strategies calls for a policy combining EU-level strategic goals for industrial ecosystems while also building the capacity of local and regional economies to achieve these European goals alongside regional priorities. Thus, there is a need for a place-based industrial policy shaped by the diversity of regions framed within a multi-level governance approach including cross-border access to complementary knowledge and specialised facilities (such as in European Digital Innovation Hubs).

Most regional commentators were (unpleasantly) surprised by the fact that two key EU Communications (Green Deal and Industrial Strategy) did not address with any precision the spatial dimension and the mechanisms required to implement effectively the policies outlined in such a spatial and multi-level perspective on economic development. The regional and local dimensions were largely ignored even though it is at the regional and local level where policies affect places and territories differently. These territorial impacts are routinely not taken (enough) into account when shaping and implementing EU-level policies. Providing development opportunities to all, encouraging lead-regions to excel while also reducing inequalities between places will require targeted place sensitive policies, interventions, and investments. All EU policies need to reflect the diversity of needs and opportunities of individual places and communities and fully capitalise on their entrepreneurial capacity to position themselves in European value chains.

Building a new paradigm for broad-based, place-based and targeted innovation requires a role for both old and new stakeholders. Accepting place-based policies does not mean ignoring the need for a top-down approach.⁶ Responses to the current COVID-19 crisis, and the need for a global response to climate change, also require ‘big government’ that sets common directions, just as more localised government is needed for specific implementation goals and experimenting with new approaches.

Hence, smart specialisation strategies make the difference. Without the strategic prioritisation of resources for innovation and transformation in regions and cities no European recovery policy can work effectively. But we are not starting from scratch.

² The revenge of the places that don't matter Andrés Rodríguez-Pose, 6 February 2018 <https://voxeu.org/article/revenge-places-dont-matter>

³ COM(2019) 640 final, Brussels, 11.12.2019

⁴ A New Industrial Strategy for Europe COM (2020)102 final

⁵ EC Communication of 30 September 2020 on ‘A new ERA for Research and Innovation’ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0628&from=EN>

⁶ As pointed out by Dominique Foray, Smarter Conference 2020 1st webinar 17th September 2020

1.3 Regional innovation ecosystems and smart specialisation

There is now a growing body of academic literature on regional innovation ecosystems⁷ which argues that economic development is informed by the search for competitive advantage focused on innovation led by societal challenges. Innovation is an interactive process that if socially and territorially embedded and linked to the culture, history and institutions of a region or city, can greatly improve its capacity to deliver sustainable growth and resilience. Such structural change can be managed more effectively through evolving triple or quadruple helix models of governance within strong regional innovation ecosystems that can manage joint priority setting and transregional and international interconnections.

Smart specialisation⁸ has become a powerful feature of current regional innovation and industrial policies in Europe. It is through effective smart specialisation strategies for each region in Europe that it is possible to combine a top-down direction – green and digital transition – along with a focus on the competitive capacities of each region. Adopting smart specialisation in the governance of industrial strategy makes a fundamental difference for the success of transformation policies by:

1. Anchoring industrial policy in real places and real ecosystems;
2. Mobilising productivity increasing investments linked to international value chains;
3. Co-financing innovation and transformation efforts by sourcing EU, national and regional funding;
4. Reshoring strategic industrial activities;
5. Promoting mutually beneficial economic cooperation between regions.⁹

The success of this new generation of smart specialisation strategies for regional and European transformation objectives will depend on the capacity to induce ‘smart complementarities’ in a European multi-level governance model for industrial transformation policy. This multi-level governance is exemplified by political leadership that seeks the convergence of fiscal policies in the EU in mobilising resources for innovation and transformation in agreed priority domains. Smart specialisation thus enables synergies by aligning regional investments.

2. Background to Smart Specialisation

Smart Specialisation is a place-based approach characterised by the identification of strategic areas for intervention based both on the analysis of the strengths and potential of the economy and on an Entrepreneurial Discovery Process (EDP) with wide stakeholder involvement. It is outward-looking and embraces a broad view of innovation including but certainly not limited to technology-driven approaches, supported by effective monitoring mechanisms.

Smart Specialisation Platform [What is Smart Specialisation? - Smart Specialisation Platform \(europa.eu\)](https://ec.europa.eu/regional_policy/sources/docgener/guides/smart_spec/strength_innov_regions_en.pdf)

Before summarising our thinking around smart specialisation over the year, it is useful to remind ourselves of the reasons why smart specialisation has developed as such an influential policy over the past decade. Fragmented policy frameworks and fragmented investment efforts are the main barriers for structural change in the EU.¹⁰ The

⁷ See Bjorn T. Asheim et al. (2019) Regional innovation Systems. Edward Elgar, Cheltenham, UK, and Pia Lappalainen (ed) (2015) Orchestrating regional innovation ecosystems. Aalto University,

⁸ Smart specialisation is an innovative approach that aims to boost growth and jobs in Europe, by enabling each region to identify and develop its own competitive advantages. Through its partnership and bottom-up approach, smart specialisation brings together local authorities, academia, business spheres and the civil society, working for the implementation of long-term growth strategies supported by EU funds.

https://ec.europa.eu/regional_policy/sources/docgener/guides/smart_spec/strength_innov_regions_en.pdf

For a much more complete overview go to the Smart Specialisation Platform <https://s3platform.jrc.ec.europa.eu/what-is-smart-specialisation->

⁹ See Friends of Smart Specialisation ‘A New Industrial Strategy for Europe. What role for Smart Specialisation?’

http://www.efiscentre.eu/wp-content/uploads/2020/03/A-New-Industrial-Strategy-for-Europe_-Foss-Critique-170320.pdf

¹⁰ A joint OECD and Committee of the Regions survey (2015) indicated that governance problems are as relevant as gaps in financing. **The fall in investment is due to a fall in public funding. It is also the result of a lack of coordination among national, regional and local governments in planning and funding infrastructure projects which is holding up delivery by private contractors.** We need to significantly improve collaboration among governments, the private sector and universities to deliver results and stir innovation in the sector. See <http://portal.cor.europa.eu/europe2020/news/Pages/oecd-joint-eport.aspx>

EU has only a limited budget and even in key domains such as research and innovation, the resources of national and regional authorities far exceed those of the EU and other supra-national European bodies.¹¹

That is why smart specialisation (S3) was developed in 2007 as a European research and innovation policy approach in the context of the European Research Area (ERA)¹² and the objective of spending of 3% of GDP on R&D.¹³ The European Commission's DG Research and Innovation (DG RTD) at the time, saw a clear rationale for 'specialisation' in order to enhance the efficient and effective use of financial resources for national public R&D expenditure. More efficiency would be achieved by avoiding unnecessary duplication and fragmentation and likewise more effectiveness by prioritising knowledge investments in areas of comparative advantage. The term 'smart specialisation' was coined by a high-level expert group, the Expert Group on Knowledge for Growth and featured the role of 'entrepreneurial discovery' in a place-based process of prioritising public R&D investments for competitive advantages in future growth areas.¹⁴

On 6th October 2010, two European Policy Communications were published in coordination by two different Commission departments, DG Research and Innovation (DG RTD) and DG Regional and Urban Policy (DG REGIO). The 'Innovation Union Flagship'¹⁵ identified the challenge of fragmentation and the role of societal challenges as drivers of joint research and innovation efforts¹⁶ and at the same time smart specialisation was proposed as a general methodology for modernising the national research and innovation strategies.¹⁷ In the Communication 'Regional Policy Contributing to Smart Growth in Europe'¹⁸ research and innovation strategies for smart specialisation' (RIS3) were put forward as an ex-ante conditionality¹⁹ for accessing resources from the European Regional Development Fund (ERDF) for research and innovation investments, thereby striving for a better use of these funds.

The 2012 Communication 'A Reinforced European Research Area Partnership for Excellence and Growth' stated:

It is vital that Member States and regions build up their own research systems, based on their own strengths, in line with smart specialisation. However, to achieve a globally competitive ERA for Europe to play a leading role in

¹¹ 'National budgets will play a key role in the transition redirecting public investment, consumption and taxes towards green priorities. A review of European economic governance will include a reference to green public investment and inform the debate on how to improve European fiscal governance.' COM(2019) 640 final, Brussels, 11.12.2019

¹² See https://ec.europa.eu/info/research-and-innovation/strategy/era_en

¹³ After a period of slow but rising growth, gross domestic expenditure on R&D as a percentage of GDP ('R&D intensity') in the EU stagnated at around 2.06 % between 2014 and 2017. As a result, the 3 % Europe 2020 target is still some distance away. See https://ec.europa.eu/eurostat/statistics-explained/index.php/Europe_2020_indicators_-_R%26D_and_innovation

¹⁴ The Knowledge for Growth expert group (Group), called into existence by European Commissioner J. Potočník in March 2005, was tasked to provide advice and insight about the problems and issues that would promote the emergence and development of an efficient and effective European system of research and innovation. Smart Specialisation was coined as a concept by the Group in 3 policy briefs https://ec.europa.eu/invest-in-research/monitoring/knowledge_en.htm One of them treats Smart Specialisation and Industrial Policy https://ec.europa.eu/research/innovation-union/pdf/expert-groups/i4g-reports/i4g_policy_brief_8_-_smart_specialisation.pdf

¹⁵ https://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication_en.pdf Europe 2020 Flagship Initiative Innovation Union'. Smart specialisation is considered as part of national innovation policy.

¹⁶ Under-investment in our knowledge foundation; unsatisfactory framework conditions and too much fragmentation and costly duplication. The Communication recommends taking collective responsibility for a strategic, inclusive, and business-oriented research and innovation policy; prioritising and protecting investments in our knowledge base and launching European innovation partnerships to pool resources and expertise to find solutions to societal challenges and to build competitive advantage in key markets. https://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication_en.pdf

¹⁷ "Design and implementation of research and innovation policies is steered at the highest political level and based on a multi-annual strategy. Policies and instruments are targeted at exploiting current or emerging national/regional strengths within an EU context ("smart specialisation") – ... – A multi-annual strategy defines a limited number of priorities, preceded by an international analysis of strengths and weaknesses at national and regional level and of emerging opportunities ('smart specialisation') and market developments, and provides a predictable policy and budgetary framework. The strategy duly reflects EU priorities, avoiding unnecessary duplication and fragmentation of efforts, and actively seeks to exploit opportunities for joint programming, cross-border co-operation and exploiting the leverage effects of EU instruments." (In Annex 1: 'Self-assessment tool: Features of well performing national and regional research and innovation systems')

¹⁸ 'Regional Policy Contributing to Smart Growth in Europe'

https://ec.europa.eu/regional_policy/en/information/publications/communications/2010/regional-policy-contributing-to-smart-growth-in-europe-2020

¹⁹ The concept of 'ex-ante conditionality' is different from its forthcoming successor of 'enabling condition' that will kick-in in the next programming period (2021-27) more as a loose evolution, although with a broader reach than research and innovation policy

addressing grand challenges and in which all Member States participate, national systems must be more open to each other and to the world, more inter-connected and more inter-operable.²⁰

Initially based on a 4C approach: tough *choices*, *competitive* advantage, *critical* mass, and *collaborative* leadership,²¹ these early methodological underpinnings of S3 have been followed by an impressive amount of theoretical and practical research – both widening and deepening the approach – much of which has been carried out by the Commission’s Joint Research Centre (JRC) in Seville through its ‘Smart Specialisation Platform’.²²

With the end of the Lisbon Strategy²³ and the difficult implementation of a new programming period after the financial crisis of 2008, the policy cards were reshuffled. Unfortunately, smart specialisation was not implemented by European R&I policies as proposed by the Innovation Union Flagship and the ERA policy. As a result, smart specialisation became restricted to a cohesion-only policy context principally aimed at mostly catching-up regions to promote spending of their (often abundant) ERDF more strategically, while in the more developed regions, with (often) marginal funding from ERDF, there was a lack of encouragement to combine this EU funding with their own regional or national funding at a strategic level. Only a small number of regions took advantage of the RIS3 (Research and Innovation Strategies for Smart Specialisation’) to restructure their entire innovation system around strategic priorities.²⁴

Nevertheless, the simultaneous development of more than 120 RIS3²⁵ has been a historic milestone for European innovation policy. Building further on triple helix²⁶ and cluster approaches, smart specialisation is thus an ongoing methodology innovation in managing economic transformation involving a wide range of stakeholders (beyond an industrial forum). This transformation requires developing a bottom-up strategy based on competitive advantage (based on the regional innovation system) but increasingly linked to the search for ‘smart complementarities’ involving transnational collaboration as illustrated by regional networks such as the Vanguard Initiative²⁷ and the smart specialisation thematic platforms.²⁸ These partnerships were set-up with the explicit objective to combine financial resources for the co-funding of projects that are linked to cross-regional value chains.

3. What smart specialisation offers

Smart specialisation is an open-ended policy approach for transformation. It offers the potential of a new decentralised European governance framework for the co-investment decisions that need to be taken, based on matching complementarities. Because of its co-creation dynamics, it can inspire the necessary confidence in longer-term alliances and goals. But it can only work as a European innovation policy framework in combination with political goal-setting mechanisms, such as European missions,²⁹ which are linked with investment commitments (political leadership).

1. The essence of smart specialisation process is a **transformation** of the economic structure, understood as the **specialisation structure** of a territorially defined economy. This shift in (international) specialisation is based on the further differentiation of the local assets in new competitive strengths for the future. Inevitably the relative

²⁰ A Reinforced European Research Area Partnership for Excellence and Growth Communication Brussels, 17.7.2012 COM(2012) 392 final p3. Also: “A key aim for ERA is also to reduce both brain drain, notably from weaker regions, as well as the wide regional variation in research and innovation performance, aiming at excellence across the Union through smart specialisation.”

²¹ See Mikel Landabaso (at the time in DG REGIO) presentation to the OECD in 2012 <http://www.oecd.org/dev/50649698.pdf>

²² See <https://s3platform.jrc.ec.europa.eu/> an essential source of core documents and a wealth of information around S3

²³ See [THE LISBON STRATEGY \(europa.eu\)](https://ec.europa.eu/economy_finance/press_corner/detail.do?lang=en&press_release=1111) for a good overview of the Lisbon Strategy.

²⁴ Some of the leaders are Basque Country, Catalunya, Lapland and Emilia-Romagna.

²⁵ The list can be obtained on the JRC S3 Platform <https://s3platform.jrc.ec.europa.eu/>

²⁶ Etzkowitz, Henry, and Loet Leydesdorff (Eds.) (1997). *Universities and the Global Knowledge Economy: A Triple Helix of University-Industry-Government, Relations*. London: Cassell Academic.

²⁷ <https://s3vanguardinitiative.eu/>

²⁸ Established by DG REGIO, in cooperation with DG Internal Market, Industry, Entrepreneurship and SMEs (DG GROW), DG RTD and DG Agriculture and Rural Development (DG AGRI), under the S3 Platform (DG JRC) in different domains crucial for deep industrial transformation. See <https://s3platform.jrc.ec.europa.eu/en/thematic-platforms>

²⁹ [Missions in Horizon Europe | European Commission \(europa.eu\)](https://ec.europa.eu/missions/)

strengths differ and seek complementarity in broader delivery systems for economic solutions (value chains). Smart specialisation does not seek comparative advantages of the past but is aimed at competitive **positioning in the economy of the future**.

2. The act of faith of smart specialisation in the European innovation system is that our futures are intertwined and that there is a role for all European regions in finding these solutions for our common future. Smart specialisation can therefore be restyled as **smart complementarity** to highlight this interdependency.
3. The role of smart specialisations as **future-oriented choices** of activities to invest in is increasingly important for big **systemic challenges**³⁰ that need the mobilisation of all resources. We need to align resources as effectively as possible based on place-based entrepreneurial opportunities triggered by a shared European vision.
4. The mechanism of smart specialisation is based on **identification of (mutually beneficial) opportunities**. This is a forward-looking endeavour (not vested interests) for co-creation of new longer-term 'co-opetition' conditions in the European internal market.
5. The smart specialisation strategies (expressed in earmarking public innovation and transformation funding) are linked to **unique cluster capacities** (innovation eco-systems) in territories with their own historic and geographical identities.³¹
6. This place-based policy must be implemented by **all (regional, national, and European) policy levels** that have competences that can support these places/clusters to use their potential for the pursued transformation. A major policy fallacy is to limit the place-based approach to regional competences.
7. Smart specialisation is contextual and requires **tailored policy mixes** and policy integration. It stimulates integration of innovation policy in a broader set of education, training, regulation, and infrastructure policies to make it work.
8. The combination of policy levels and policy domains is making smart specialisation a **multi-level European style policy**. It combines the European **common vision** with **decentralised decision spaces**.
9. The **Entrepreneurial Discovery Process (EDP)**³² is a methodology enabling a smart role for public policy based on the triple/quadruple helix principles in the co-creation process of strategic clusters of the future, but a lot of policy innovation to structure the EDP is still ongoing.
10. Smart specialisation requires political commitment enabling a strategic investment policy. Increasingly, the **role of citizens** within the process to provide legitimacy is crucial. People-centred policies are based on the valorisation of talent and on adjustments to labour market needs in a quickly evolving society, leaving no one behind. A 'Just Transition' gives a future to all.

Although regional innovation ecosystems are increasingly seen as a key element in a more place-based industrial policy^{33 34} the full potential of smart specialisation remains to be seen. Consequently, it can be argued that the implementation of smart specialisation as a new policy concept has still to take-off and needs to be better understood in order to implement any ambitious intra-European co-investment strategy such as the European Green Deal.³⁵

³⁰ See the increased interest in a mission-based approach to future EU research and innovation strategies. See https://ec.europa.eu/info/horizon-europe-next-research-and-innovation-framework-programme/missions-horizon-europe_en

³¹ The entrepreneurial discovery process of these activities favours the meso-economic dimension of economic policy (networks) over the traditional micro-economic (individual actors) and macro-economic policies (broad aggregates). This EDP requires a new combination of strategic planning with self-organisation. The Vanguard Initiative initiated a methodology 'Learn-connect-demonstrate-commercialise' (further developed in S3 partnerships) to identify common investment opportunities (with state-of-the art matching techniques and participatory decision making).

³² For more information on this key aspect of smart specialisation see <https://s3platform.jrc.ec.europa.eu/entrepreneurial-discovery-edp>

³³ See Asheim, B.T et.al. (2019) 'Advanced Introduction to Regional Innovation Systems', Edward Elgar, Cheltenham UK.

³⁴ For regional examples see https://europa.eu/regions-and-cities/programme/sessions/352_en

³⁵ https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

4. The European Green Deal

The European Green Deal³⁶ is the **new growth strategy for the EU** which aims to

...transform (the EU) into a fair and prosperous society, with a modern, resource-efficient, and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use.³⁷

The Communication introducing the Green Deal admits that this unprecedented transformation will 'require a strong policy response at all levels' and significant investment efforts. However, the Communication says little on how the strategy will be delivered at the local and regional level which prompted FoSS to publish an analysis of the Green Deal Communication in February 2020. In particular, the Communication omits any reference to smart specialisation as such a delivery mechanism. FoSS maintain that a successful implementation of the Green Deal can only be achieved with a smart governance mechanism.³⁸

The Green Deal represents a new form of mission-oriented policy making with a role for a more entrepreneurial state.³⁹ But this stronger role of the state (at all levels of government) requires an inclusive entrepreneurial discovery process to make the right policy choices. Such an ambitious new strategy will also need a determined policy and governance framework. Significant beginnings of such a framework exist through smart specialisation strategies which have involved all regions and countries in Europe. What is needed now is a strategic discussion on **the evolving role of smart specialisation from a cohesion policy instrument to an overall governance tool for European transformation**. Smart specialisation is thus a close ally of the Green Deal combining a policy approach and governance mechanism that integrates for a top-down directionality with bottom-up entrepreneurship and co-creation of new sustainable growth opportunities. Hence, smart specialisation strategies must add another 'S' for sustainability to become S4 – a key component for Green Deal success.⁴⁰

4.1 Why smart specialisation is an intrinsic element of the European Green Deal

The new growth strategy of the EU with a focus on the climate goal can be considered as a smart specialisation strategy for the whole of the EU in an international perspective. The European Green Deal will not succeed without building capacity for strategic governance. This is a mutual success condition shared with European smart specialisation strategies. This need for better strategic alignment will be a core element in creating a new 'European style' mixed economy (with a new combination of environmental protection, productivity growth, stability, and fairness). While market forces alone fail to bring systemic change, government planning processes often entail a high risk of government failures.⁴¹ Smart specialisation can help avoid these failures with a new approach for pro-active alignment of complementary actors in the emerging value chains of the carbon neutral economy.

The European Green Deal introduces an exogenous constraint to the smart specialisation process since it introduces a whole series of new criteria for future investments, and in itself, is a major top-down conditionality. Yet, closer examination reveals the convergence of both processes: (a) climate and environmental criteria have already been introduced, for example, in the ERDF Regulation from the start of the current programming period (2014-20); (b) industrial restructuring is a major component of the success of the Green Deal and this can be engineered and facilitated through S3; (c) the directionality of national and regional investments in research and

³⁶ COM(2019) 640 final, Brussels, 11.12.2019

³⁷ COM(2019) 640 final, Brussels, 11.12.2019

³⁸ 'Smart specialisation strategies can ensure a more effective use of public funds and can stimulate private investment. They can help regions to concentrate resources on few key priorities rather than spreading investment thinly across areas and business sector...' Regional Policy contributing to smart growth in Europe 2020 COM(2010)553 final 6 October 2010.

³⁹ See <https://marianamazucato.com/entrepreneurial-state/>

⁴⁰ Mikel Landabaso, Director of JRC Seville at 'Beyond EDP' final conference 12 December 2020

⁴¹ e.g., limited information, capture by rent-seeking interests or constrained by insufficient popular support

innovation are greatly facilitated by the introduction of the Green Deal that helps to streamline and provide a new focus to innovative investments towards the global transformation.⁴²

In EU economic policy, the global positioning of our green strengths will need to be structured through the alignment of our strategic clusters by developing smart complementarities. Strategic value chains that guarantee technological autonomy (such as the battery and AI for autonomous e-mobility) and critical mass for international competition must connect strong clusters in different parts of these value chains across the EU, from design to after-sales support. A global Green Deal strategy needs smart specialisation in European networks of interlinked companies and clusters in Europe and beyond. Smart specialisation has already attracted much international attention⁴³ and the Green Deal diplomacy should integrate smart specialisation to advocate a distinctly European policy model for implementing the UN Sustainable Development Goals (compared with the state-driven model or the laissez-faire), leaving no region behind. These broad-based and interdependent goals can only be implemented with a place-based approach.

The matching of Green Deal and smart specialisation strategies is a winner. Because – finally – the national and regional transformative investment policy frameworks will be interlinked with strategies that connect the local clusters with complementary partners abroad and promote competition with similar ones on the basis of further differentiation.

5. EU Industrial Strategy

In March 2020, FoSS reacted to the publication of the new Industrial Strategy,⁴⁴ another step in the evolution towards a new governance model for the EU economy of the 21st century, and in May also contributed to a Committee of the Regions' opinion on the strategy. Although, the EU still has major assets, such as its 'unity in diversity' -, the underpinning of smart specialisation - to be a world leader in economic solutions for the big societal challenges, a new industrial strategy is required. This revised strategy should ensure economic resilience in a time of structural changes marked by important economic shocks such as the financial crisis of 2008 and the current COVID-19 crisis. Industrial strategy should provide a policy framework for long-term investment in transformation, a compass for confidence in a common future. While the EU has been developing partnership approaches, as articulated in the Communication with the label 'Industry Alliances', this model is incomplete without the dimension of 'smart specialisation' that gives a role for all regions to co-invest in the new value chains of the green and digital transitions.

5.1 What is 'new' in the new industrial policy?

Industrial policy has been in retreat in the EU and Member States and is regularly criticised for its 'picking winners' approach often defending 'national champions' in declining sectors. Although innovation policy promoting technologies of the future replaced these policies in the nineteen nineties, this policy still suffered from a linear technology-push approach. New industrial policies re-introduce a new demand-side imperative, to connect the innovation driven economy with all-encompassing societal needs and pay more attention to place and agglomeration effects.

The new Industrial Strategy is the core of the transition towards a **sustainable growth model for Europe** and reflects the changing nature of economic growth and of competition. These transitions will take place in a time of moving geopolitical plates which affect the nature of competition. The need for Europe to affirm its voice, uphold

⁴² However, there are indeed constraints on the economic front, since the issues of global competitiveness, productivity and global fair-play remain on the table: while Europe strives for the European Green Deal, other global players may challenge its resilience by bypassing international principles and providing more competitive product and services at the expense of environmental and climate sustainability. This has the potential to de-stabilise European efforts, so a strict monitoring along with appropriate policy responses must be prepared and implemented.

⁴³ The S3 Platform has already a lot of demand for policy learning and setting-up support for S3 form different continents (Latin-America, Australia, Africa...)

⁴⁴ A New Industrial Strategy for Europe COM (2020)102 final

its values and fight for a level playing field is more important than ever. This is about Europe's sovereignty.⁴⁵ The Communication outlines three drivers: global competition; climate neutrality; and a digital future. The strategy is underpinned by a set of inter-connected and reinforcing fundamentals. These fundamentals cover (1)certainty for industry and a deeper and more digital single market; (2)upholding a global level playing field; (3)shift to climate neutrality; (4)building a more circular economy; (5)embedding industrial innovation; (6)skilling and re-skilling; (7) investment and financing the transition.

The Communication also stresses the need to reduce dependency on others by supporting the key industries needed for future technological sovereignty coupled with a partnership approach to governance through an industrial ecosystem approach. The Communication notes that the Commission will work closely with an inclusive and open 'Industrial Forum' consisting of representatives from industry, SMEs, big companies, social partners, researchers as well as Member States and EU institutions, and promote 'Industrial Alliances' as a new approach to partnerships for building 'strategic value chains'.

The new Industrial Strategy embarks fully on the twin digital and green transition (the Green Deal) as the prime movers of industrial modernisation in Europe and world-wide and has the capacity to orchestrate the transition towards a deeply transformed economy that is in line with climate neutrality.⁴⁶ Thus, the new Industrial Strategy has the mission to accelerate this transition by integrating all necessary policy instruments and focussing on priority domains.

The Communication also presents 'industrial ecosystems as a 'new approach' for new industrial policy:

Our new industrial strategy is entrepreneurial in spirit and in action. The Commission is ready to co-design and co-create solutions with industry itself, as well as with social partners and all other stakeholders. This will be supported by a new focus on industrial ecosystems, taking into account all players within a value chain. This is our new approach...⁴⁷

However, this approach seems to be the classic 'space-blind' thinking which ignores the importance of 'place' to foster ecosystems and unique entrepreneurial opportunities with smart specialisation strategies. This stance has unfortunately been repeatedly applied in EU policies and it is one of the main barriers for their successful delivery and deployment.

'Ecosystems' are the reference framework for all modern innovation policies but remain a vast container concept without further institutional operationalisation. 'Industrial alliances' are presented as the 'new approach' for a more pro-active industrial policy, with the Battery Alliance identified as success story of the new approach. The 'Strategic Forum for Important Projects of Common European Interest'⁴⁸ has also selected a limited number of 'strategic value chains', cases with high potential for coordinated action.⁴⁹

At first sight, this governance does not differ substantially from other 'high-level platforms', having had low impact in the past. But the main lever of the European Commission to create more impact is now the 'IPCEI'⁵⁰ which is a mechanism to tailor state-aid rules of national governments and gives wide convening powers to the European

⁴⁵ A New Industrial Strategy for Europe COM(2020) 102 final page 1

⁴⁶ 'All industrial value chains, including energy-intensive sectors, will have a key role to play. They will all have to work on reducing their own carbon footprints but also accelerate the transition by providing affordable, clean technology solutions and by developing new business models.' A New Industrial Strategy for Europe COM(2020) 102 final page 3

⁴⁷ A New Industrial Strategy for Europe COM(2020) 102 final pages 1-2

⁴⁸ See [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018D0202\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018D0202(01)&from=EN) where it is stated that the 'group should provide the Commission with advice and expertise, with a view to helping to build a common Union vision on the key value chains for Europe and facilitate agreements to design and take forward new investment projects in key value chains in Europe through cooperation and coordination between public authorities and key stakeholders from several Member States.

⁴⁹ Following an analysis of Europe's industrial landscape, the Strategic Forum identified six key strategic value chains as priorities for pooling resources and provided recommendations for action. These key strategic value chains complement three other areas - namely high-performance computing, microelectronics and batteries – where large-scale coordinated investments are already ongoing.

⁵⁰ Important Projects of Common European Interest . For a good overview see [https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/659341/EPRS_BRI\(2020\)659341_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/659341/EPRS_BRI(2020)659341_EN.pdf)

Commission to organise large EU-level industrial projects across the whole value chain. The risk is that this industrial policy remains a Commission-led approach, packaged in an 'industry sector' policy.⁵¹

This risk is reinforced by the fragmentation of innovation and transformation policies across different Directorate Generals (DGs) and their programmes. In particular, there is a lack of connection between DG GROW's 'strategic value chains' and DG RTD's 'missions', which operate different processes for the same stakeholders. The R&I Missions also announce a 'new approach' in support of agreed EU policy objectives, implemented with a limited number of large PPPs. Synergies with other funding programmes, alignment of strategic priorities in support of a common vision are acknowledged. The alignment of the five 'mission areas' and the six 'Alliances' is a first challenge to ensure coherence and complementarity.⁵² Although, in the Communication, under the section on industrial innovation, there is an encouraging reference to 'place-based innovation' and experimentation, there is no explicit mention of the current driving force of regional innovation in Europe which is smart specialisation (RIS3).⁵³ Regional actors are considered a resource for implementing European strategies, not a driver.

SME policy is also strongly embedded in the Industrial Strategy and the Communication on an 'SME Strategy for a sustainable and digital Europe',⁵⁴ published at the same time as the Industrial Strategy, notes that SMEs are the backbone of the EU economy and play a key role in adding value to every sector of the economy. SMEs play a key role in regional economies and clusters where they find their supply chains and often main markets and are key actors along with clusters in regional innovation ecosystems. However, innovation cannot prosper in isolated (footloose) firms; but the European support ignores the policy priorities (RIS3) in regional ecosystems for SMEs.

This lack of reference to smart specialisation strategies is surprising given that the European Commission through its Cohesion Policy has explicitly promoted smart specialisation from 2014⁵⁵ through an 'ex-ante conditionality' which required EU Member States and regions to have smart specialisation strategies in place in order to access ERDF funding.⁵⁶ In another Communication in 2014 (For a European Industrial Renaissance'), the European Commission acknowledged the role of smart specialisation.⁵⁷ This was backed up in another Communication 'Investing in a smart, innovative and sustainable Industry: A renewed EU Industrial Policy Strategy'⁵⁸ in 2017 that refers to the experience of the Smart Specialisation Platform on Industrial Modernisation and supports the development of value chains and regional collaboration.

The smart specialisation approach is a vital component for the needed multi-level governance of industrial modernisation and the re-organisation of value chains across European territories. The mutual alignment of investments, thanks to smart specialisation strategies seeking local opportunities for European change agendas, is a decentralised and flexible model of industrial policy that is indispensable to turn risks into opportunities.

⁵¹ 'The Commission will undertake a thorough screening and analysis of industrial needs and identify ecosystems needing a tailor-made approach.' page 15

⁵² In order to reduce confusion, we have not added in Digital Innovation Hubs (DIHs) which are not-for-profit one-stop-shops that support companies, notably SMEs, and the public sector in their digital transformation. At the core of the DIH there is normally a research & technology organisation (RTO) or university lab offering in collaboration with partners, services such as: (1) Test before invest: Experimentation with new digital technologies...(2) Skills and training to make the most of digital innovations...(3) Support to find investments;(4) An innovation ecosystem and networking opportunities.

⁵³ The Communication only refers to regions who would be able to develop and test new solutions with SMEs and consumers, drawing on their local characteristics, strengths and 'specialisms' (sic).

⁵⁴ COM (2010)103 final

⁵⁵ Strategies for Smart Specialisation (RIS3 strategies) are integrated, place-based economic transformation agendas that do 5 important things: (1) They focus policy support and investments on key national/regional priorities, challenges and needs for knowledge-based development. (2) They build on strengths, competitive advantages and potential for excellence. (3) They support technological as well as practice-based innovation and aim to stimulate private sector investment. (4) They get stakeholders fully involved and encourage innovation and experimentation. (5) They are evidence-based and include sound monitoring and evaluation systems. https://ec.europa.eu/regional_policy/sources/docgener/informat/2014/smart_specialisation_en.pdf

⁵⁶ European Regional Development Fund. See https://ec.europa.eu/regional_policy/sources/docgener/informat/2014/smart_specialisation_en.pdf

⁵⁷ 'Building on the work of the task forces, the Commission proposes to Member States to combine regional and industrial policy tools to create Smart Specialisation Platforms to help regions roll out smart specialisation programmes by facilitating contacts between firms and clusters, enabling access to the innovative technologies and market opportunities.' COM(2014) 14 final see also COM(2017) 479 final.

⁵⁸ COM(2017) 479 final https://eur-lex.europa.eu/resource.html?uri=cellar:c8b9aac5-9861-11e7-b92d-01aa75ed71a1.0001.02/DOC_1&format=PDF

6. Smart Specialisation and the EU Semester

In July 2020, FoSS took advantage of the announcement of the Next Generation EU Support and Recovery Package to investigate the role of smart specialisation strategies in the Recovery Plans and the EU Semester. For the implementation of the Recovery and Resilience Facility⁵⁹ the European Commission proposes a central role for the European Semester to conduct the monitoring of the new national reform plans (including the country's Recovery and Resilience Plan) that Member States have to submit and implement in order to receive grant support. The European Semester is at the heart of the political process to connect the national and the European growth strategies. What is missing is a policy-focused dialogue between the EU and national levels and sub-national entities.

Therefore, the European Semester for the recovery and the green and digital transition will need to be transformed in order to develop fully the 'partnership' approach that the Commission envisages. It should avoid the pitfalls and ultimate disappointment of the Lisbon Strategy and develop an adequate governance framework for recovery plans that are integrated at the EU level in order to deliver the double transition. This governance framework can build on new thinking in innovation policy such as the 'mission-oriented approach'⁶⁰ for giving direction in system changes, on the one hand, and on the multitude of European partnerships that support the discovery process of new opportunities across borders, on the other. With the Recovery Plans there is now both a need and a window of opportunity to develop a European governance model combining top-down 'directionality' and bottom-up 'discovery'. Transformation can only be achieved by combining both components.

6.1 A new economic governance for European value chains

The COVID-19 crisis is a combined demand and supply shock. In this perspective the recovery policy to restart the economy is similar to a system transition that requires a combination of supply and demand measures to start the engine. Not all sectors of the economy have been hit in the same fashion, but whatever the sector, a systemic recovery policy can only work if economic measures address the whole value chain. Hence, the post-Corona growth policy cannot, and will not, restore the old economic production and consumption norms. The imposed disruption of global value chains is coupled with the need for reorganising European positions in these global value chain for strategic autonomy and local resilience.

The political concept of 'European value chains' has become a central category of European governance.⁶¹ But the present economic models or industrial (sectoral) categories are not yet ready to support such a value chain approach. We will have to construct the bridge while walking on it. However, we do have plans and practical experience from early experience with smart specialisation partnerships across borders which organised 'smart complementarities' in new value chains.⁶²

Therefore, a governance for transformation must combine European, national, and regional recovery plans in their contributions to structure the new European value chains for sustainable growth. These plans must be outward looking and identify the areas of co-investment in smart complementarities and the opportunities to share infrastructures for transformation. In this European governance model, the cluster organisations that organise local

⁵⁹ "The Recovery and Resilience Facility will be embedded in the European Semester. Member States will submit national Recovery and Resilience plans as part of their National Reform Programmes. These plans will contain their investment and reform agenda for the years ahead, as well as the investment and reform packages to be financed under the Facility. The Commission will assess the plans on the basis of their impact on competitive sustainability, economic and social resilience, sustainable growth, and green and digital transition of the Member States." In 'The EU budget powering the recovery plan for Europe' (COM(2020) 442).

⁶⁰ See https://ec.europa.eu/info/horizon-europe-next-research-and-innovation-framework-programme/missions-horizon-europe_en

⁶¹ So far, nine strategic value chains have been identified at EU level in DG Grow: Microelectronics, High Performance Computing, Batteries, Connected and Autonomous Vehicles, Cybersecurity, Personalised Medicine and Health, Low Carbon Industry, Hydrogen and the Internet of Things

⁶² See the Vanguard Initiative for examples of cross-border pilot projects <https://www.s3vanguardinitiative.eu/>

eco-systems and connect them internationally become a central change agent in the European entrepreneurial discovery process for aligning plans.⁶³

6.2 The European Semester with ‘Smart Recovery Plans’

European solidarity in fighting the crisis is not sustainable without a long-term strategy to use the single market for new market creation and increase the strategic autonomy of European economies. Therefore, the design and implementation of smart specialisation strategies should become a voluntary ‘conditionality’ of mutual commitment for green and digital transformation in European missions and industrial ecosystems and at the same time a reassurance for those countries that fear a ‘transfer union’.

These smart specialisation strategies can develop the dynamic comparative advantages of all countries and regions in these new markets. Such a new narrative on ‘European’ smart specialisation strategies can bridge the divide between present receivers and givers to secure sustainable growth for all and converge the objectives of cohesion and competition policies. This new narrative recognises the role of a place-based industrial policy positioning innovation niches in European value chains (as drivers) that can spill-over to the local economy (through related variety⁶⁴) and build local resilience on the basis of a new sustainable growth model (i.e. a circular economy approach), while strengthening European positions in global value chains.

The European Semester can embody this new industrial policy approach for the transition to a new growth model with a joint top-down and bottom-up approach to recovery, building on political leadership for long-term commitment and the co-ownership of the bottom-up actors. But the continuing fragmentation of innovation policy frameworks is a major handicap for cooperation among the innovation actors ‘at the sharp end’ (public agencies, research institutes, companies...). The political will to establish and streamline a joint European Innovation System to spur the twin transition can be kick-started by designing and aligning national and regional transformation strategies for smart specialisation as key-drivers for recovery plans.

6.3 How to fit smart specialisation in the European Semester

The European Semester should adopt a multi-level approach for place-based solutions through ‘smart recovery plans’ that integrate the regional RIS3.

Our industrial ecosystems are increasingly integrated and connected. Research, engineering, manufacturing, assembly and servicing often take place in different parts of Europe and allow businesses to be more competitive and focus on what they do best. **This will be exactly what is needed for Europe’s recovery.**⁶⁵

In order to make this possible the necessary preconditions have to be created at all levels. This can be based on a joint policy framework for the promotion of European industrial ecosystems. The following steps will mutually support a multi-level alignment of recovery and transformation plans:

1. The **adaptation** of regional and national smart specialisation strategies in line with the European green, digital and resilience strategies (sustainable smart specialisation strategies, with support of the S3 Platform). These strategies will propose investment priorities on the basis of strong regional ecosystems and will implement them with combined regional, national, and European resources.
2. The **integration** of such strategies in the national plans. The Recovery Plans are voluntary. Member States, therefore, can aggregate in their national strategies the smart specialisation priorities for their sub-national ecosystems that have a significance in the European industrial ecosystems and strategic value chains, and use these investment priorities in the national climate and energy plans.

⁶³ https://ec.europa.eu/growth/industry/policy/cluster_en

⁶⁴ For a definition, see <https://www.onlines3.eu/phase-4-priority-setting/4-3-related-variety-analysis/>

⁶⁵ COM(2020) 456 Europe’s moment: Repair and Prepare for the Next Generation.

3. The **assessment** framework at EU level for the national and regional recovery and modernisation plans in the context of the EU Semester.

The integration of smart specialisation strategies can be assessed as an ‘enabling condition’ for effective recovery investment plans. But the framework of assessment should be widened from a mostly regional development perspective (cohesion) to a European policy framework focused on European industrial ecosystems and their strategic value chains with partnerships involving all regions. This European reference framework will help to assess the effectiveness of these plans for the new growth strategy at regional, national, and European level, and to monitor their implementation with a common pipeline of co-investment projects in European value chains.

7. Smart specialisation and the EU’s cohesion policy

7.1 From S3 to S4

In September 2020, FoSS contributed a background note to the Committee of the Regions on the role of the cohesion policy with respect to intelligent and innovative economic change in the regions against the backdrop of the COVID-19 crisis. At the time, a second generation of S3 was being prepared, again in the context of the ERDF, this time being presented as an ‘enabling condition’ for effective investments in PO1 ‘Smart Europe’. The next generation of S3 can and should be quickly upgraded to ‘sustainable smart specialisation strategies’, or S4, spearheading regional and national transformation strategies (expressed in the context of the forthcoming recovery plans). These transformation strategies should be supported by a broad policy mix, but with S4 at the core for better targeting innovation policy for green and digital structural change.

Dynamising the role of cohesion policy for innovative economic change therefore goes together with mainstreaming smart specialisation (the most important available instrument for economic change at the EU level at the moment), first within the full cohesion policy domain itself, and then between cohesion and other European and national and regional policies with a transformation potential. By doing this, cohesion policy can retain and expand on its integrative role as illustrated by the next two points.

Firstly, within the full cohesion policy domain ‘smart specialisation strategies for sustainability’ would be connected to all major funds, in particular ESF+. It is inconceivable to have a targeted approach for research and innovation without a complementary education and training strategy. Dedicated vocational centres already are on the agenda,⁶⁶ but there is no systematic integration of a policy mix for innovative economic change as long as operational programmes are functioning in ‘different worlds’. Sustainability should play a central role, present within the full range for a strategic streamlining of policies and instruments for new growth. S4 therefore would become an integrative framework for a full transformation investment strategy.

To support fully such an ‘S4 approach’ for systemic changes throughout cohesion policy, the present S3-s must be freed from their inward-looking focus on development. Closing the gap with ‘developed’ regions has less relevance at a time when all regions have to develop transition strategies and action plans. Some developed regions might be more handicapped by lock-ins (e.g. automotive and aeronautic industries) compared to some lagging regions that may be able to leap-frog into new growth sectors. But none of them can do it alone.

Therefore, European **interregional cooperation for innovative economic change** becomes the most important added value of cohesion policy. This goes far beyond ‘policy learning’ or searching for joint activities in ‘common’

⁶⁶ See Centres of Vocational Excellence. Their success will be based on ‘Strong and enduring relationships between stakeholders...and... Being integrated in frameworks of regional development, innovation and smart specialisation.’ [Platforms of Centres of Vocational Excellence - Employment, Social Affairs & Inclusion - European Commission \(europa.eu\)](#)

thematic specialisation domains. S3 cooperation around similar themes, although useful, lacks the more ambitious target of exploiting complementarity assets in value chains.⁶⁷

Secondly, cohesion policy, as the most important investment fund for economic change in the EU, can play a pivotal role in the overall European policy mix for transformation. Therefore, the innovation policy framework of Horizon Europe and of cohesion policy for innovative economic change must be integrated. This will require not only that cohesion policy supports ‘missions’ but also that research policy steps back from its place-neutral policy to recognise that territories make a difference for achieving excellence and relevance (triple/quadruple helix) and provide access to specialised research and innovation infrastructure. The S3 partnerships developed under cohesion policy can become a strong layer in trans-European transformation strategies such as digital transformation (with regional European Digital Innovation Hubs) and the Strategic Alliances across European industrial eco-systems. Therefore, these policy domains need to develop a joint narrative on the European approach to the transformation challenges and a joint instrument mix. This role of cohesion policy should be recognised in the European Semester by adopting the ‘enabling condition’ of S4 as part of the assessment of national modernisation strategies and recovery plans.

The basic ingredients of such an S4 – a prioritisation approach, EDP, stakeholder engagement, better innovation support capacity and political commitment – have been put in place in many regions in the 2014-2020 programming period. In the new programming period, the assessment of the seven fulfilment criteria of the ‘enabling condition’ for an effective S3 will no longer be limited to an initial stage of strategy design but is now part of the continuous process of adapting and learning in an effective innovation governance for the twin transitions. A critical success factor will be the role of the S3 Platform as a knowledge broker between the regions, the different DGs and within the EU Semester to increase strategic governance capacity for place-based ‘intelligent and innovative economic change’.

With the present crisis, the need to speed-up the transition of cohesion policy (and the whole of the multi-level governance for transformation) is more urgent than ever. But path dependency has hampered much change in the design of the cohesion policy framework compared to the previous period. So new policy concepts such as ‘strategic autonomy’ for restructuring international value chains (including reshoring) will require our institutions to adapt to a changing economic reality. The change must come from an interplay between change agents at the both top-down and bottom-up. The first test is the design and implementation of the new generation of S3s or S4s.

7.2 Smart Specialisation Strategies 2.0

A prerequisite of a better harmonised development (or adaptation) of smart specialisation strategies for innovative economic change in the EU is the recognition of their role in the transition to the new growth model – the Green Deal. FoSS recommend five dynamic guidelines, based on policy learning from the first generation S3.

1. From an inward-looking rehabilitation logic of the individual region to outward looking participation in the green and digital transition

Until now, S3 have been mainly focussed on internal projects. The full implementation of an investment logic for structural change in partnerships instead of an absorption logic of transfers to compensate structural problems requires the full mobilisation for European missions with place-based solutions. The mutual positioning of ambitions in international value chains is a basic mechanism for mutually identifying smart specialisations as smart complementarities. But it is also a systemic transformation to make the economy more sustainable and resilient as, for example, circular economies are being developed with varying scales in

⁶⁷ We lack instruments for such co-investments. The future Interregional Innovation Investment (I3) initiative to be launched as an experiment, with an initial budget of €500 million will be helpful to launch a new pathway but will need to mobilise funding from other sources to be effective.

‘functional regions’ that demand partnerships and the articulation of competitive, unique solutions that can be traded. Therefore, more attention should be placed in the early stages of the Operational Programme design on seeking participation in relevant S3 partnerships that focus on common challenges and opportunities and provide economies of scale and access to knowledge and markets.

2. From programme design and implementation towards strategic capacity building

This reinvigorated transformation logic will need more technical assistance for strategic capacity building. This is not limited to analytical capacity for preparing policy documents but is foremost a capacity for process building (discovery) that needs training in transition management. In the perspective of the COVID-19 challenge, capacity building for resilience and regional ‘strategic autonomy’ through making choices of priorities will be more necessary. This will also involve a strategic capacity to connect with partners, adding a long-term strategic capacity to programme management.⁶⁸

3. From occasional stakeholder consultations (mostly at the start) towards a continuous EDP (including implementation and adaptation)

The EDP introduces a democratic governance approach with community engagement, but it is still in an experimental stage.⁶⁹ In most cases it has practised stakeholder consultations for the identification of priorities, but afterwards the governance structure has been less active. Could it be that one of the reasons is that programme assessment is an ex-post exercise that has no relevance for fine-tuning and adapting the priorities because of the time-gap? Therefore, the precondition for a continuous EDP is setting-up a system of diagnostic monitoring on the main investment milestones, with more relevant indicators than output indicators such as GDP.

4. From territorial approaches mainly for lagging regions to place-based innovation strategy for all regions

The cohesion dimension of the new ERA and of the recent Territorial Agenda 2030⁷⁰ is to leave no-one behind and to promote the integration of cohesion and competition in interregional cooperation for European missions. The territorial dimension or regional ecosystems is a determining factor for the success of innovation in all places. The development and adaptation of local ecosystems to new needs for transformation through effective policy mixes (from education to infrastructures) is at the centre of all regional strategies. Sharing this regional ecosystem approach at the European level through cohesion policy will increase the importance of smart specialisation in the provision of more specialised education and training or research and test infrastructures across the EU. Local eco-systems are the living labs for global solutions. All regions have unique territorial, historic and strategic features that can play a role in the ‘European Research Area’ with their smart specialisations (including the sharing of specialised innovation infrastructures).

5. From cohesion as ‘another’ programme to an integrating role of cohesion policy for green and digital transformation

Regional policy involves the implementation of innovative economic change in real innovation systems. Therefore, it has a vocation to play a dynamic role in the integration of all necessary conditions in the tailored policy mix for S3 objectives. Regions and cities are a kind of living lab and provide an infrastructure that is the locus for such policy integration.

⁶⁸ See OECD Report (2020) ‘Strengthening Governance of EU Funds under Cohesion Policy Administrative Capacity Building Roadmaps’ [Strengthening Governance of EU Funds under Cohesion Policy: Administrative Capacity Building Roadmaps | en | OECD](#)

⁶⁹ The EDP has stimulated many areas of practical research and policy exchange. See [Beyond EDP | Interreg Europe](#)

⁷⁰ The Territorial Agenda is a strategic policy document for spatial planning in Europe, its regions and communities. It provides a framework for action towards territorial cohesion and a future for all places in Europe. It asks policy makers at all governance levels to contribute to an inclusive and sustainable future for all places and to help achieve Sustainable Development Goals in Europe. [#TerritorialAgenda 2030 - TerritorialAgenda](#)

But there is a wide divide between regions that have no R&I policy of their own and often depend for most of the R&I financing on the ERDF, and regions with little ERDF with corresponding little influence on their policy. Therefore, the Europeanisation of regional policy through smart specialisation has to tackle the full range of funding instruments, not only Structural Funds (ESIF) but also other European funds and national and regional funds. The assessment of S4 (across all regions) must consider how ERDF is integrated in all necessary instruments for a targeted, place-based, and holistic transformation strategy.

What should be the contribution of cohesion policy for innovative economic change? Cohesion policy can and must help Europe achieve resilience and sustainable growth. Cohesion policy is a distinct European Policy that embodies European values of solidarity with the aim of advancing jointly to future growth. It is gradually implementing the 'place-based' reality of multi-level governance in Europe through the growing Europeanisation of regional policies. Therefore, it has an important role to play in promoting the new growth model of the Green Deal. Against the backdrop of the COVID-19 crisis, there is a questioning of the effectiveness of our major investment fund for building resilience in a fast-changing world. Slowly – too slowly – the cohesion programme logic has been converted to a more thematic focus in strategic areas (now five general programme objectives). But this has reached its limits. Innovation and economic transformation (smart growth) are separated from sustainability (green and carbon free Europe, (implementing the Paris Agreement) as 'equal' objectives. There is a lack of strategic prioritisation and integration at the European level. Therefore, it is not easy to accomplish this integration at regional level where these general themes are also mirrored in the regional strategies. A shift from a thematic to a more strategic approach should be made.

8. Interregional Innovation Investment (I3) supported by the ERDF

In our response to the public consultation in September 2020, FoSS strongly supported the Interregional Innovation Investments Instrument (I3) and welcomed the agreement from the Council to create this new tool under the ERDF. Despite the limited budget of €500 million, this instrument can play a unique role in supporting the innovation potential available in European regions as well as 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.

To be effective it will require the mainstreaming of smart specialisation 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. As stated above 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 development dimension and the industrial transformation dimension in the overall policy mix for recovery and transformation that is now being shaped, with an appropriate 'co-governance' between the policy levels. Its success will also depend on how well it fulfils the following suggestions.

- 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 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, according to the methodology ‘learn-connect-demonstrate-commercialise’⁷¹. 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 other initiatives such as the new European University.⁷² They all can position their instruments in support of these co-investments. Also included should be leading platforms promoting innovation and cross-border value chains such as the Vanguard Initiative.⁷³ The I3 governance should also be supported by the future transnational cooperation programmes for networking, peer reviews and possible staff exchange projects. This governance would be a unique experiment for synergies-in-action.

The adoption of the I3 is welcomed as a next step to catalyse more transformative co-investments in strategic value chains across regions. While this instrument is still of limited scale, it should 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.

9. The European Research Area and Smart Specialisation

FoSS participated in August at the consultation on the Roadmap for the ERA which resulted in a Communication on the European Research Area⁷⁴ which argues that a new level of ambition that links better R&I with the economy, as well as with education and training is necessary.

Although the EU is still a global leader in research and innovation, its performance has stagnated since 2012...Europe continues to lag behind in turning the outcomes of its excellent research into disruptive innovation and fails to fully mobilise research and technological capacities in less developed regions. In this new context of growing global competition and volatile geopolitical interests, what is at stake is not only Europe’s prosperity and economic competitiveness, but also its ability to autonomously source and provide crucial raw materials, technologies and services that are safe and secure for industry and people.⁷⁵

Drawing on the lessons from the COVID-19 crisis, the ERA needs to be strengthened and Member States need to be incentivised to reinforce R&I at national and regional levels and to deepen cooperation at the European level. The new ERA proposes four strategic objectives.

1. **Prioritising investments and reforms:** to accelerate the green and digital transformation and to increase competitiveness as well as the speed and depth of the recover by facilitating the inter-play between national and European R&I systems. The principle of excellence remains the cornerstone for all investments under the ERA.
2. **Improving access to excellence:** towards more excellence and stronger R&I systems across the whole of the EU where best practice is disseminated faster across Europe. 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.

⁷¹ This distinct methodology for the EDP at European level has been introduced by the Vanguard Initiative (<https://www.s3vanguardinitiative.eu/pilotinitiatives>) and further developed in the thematic smart specialisation partnerships by the S3 Platform (https://publications.jrc.ec.europa.eu/repository/bitstream/JRC116630/s3p-thematicmanual_-_online.pdf)

⁷² [European Universities Initiative | Education and Training \(europa.eu\)](https://www.europa.eu/education-and-training)

⁷³ The Vanguard Initiative is driven by a political commitment made by regions to use their smart specialisation strategy to boost new growth through bottom-up entrepreneurial innovation and industrial renewal in European priority areas. [Home | Vanguard Initiative \(s3vanguardinitiative.eu\)](https://www.s3vanguardinitiative.eu)

⁷⁴ EC Communication of 30 September 2020 on ‘A new ERA for Research and Innovation’ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0628&from=EN>

⁷⁵ Ibid page 3

3. **Translating R&I results into the economy:** R&I policies should aim at boosting the resilience and competitiveness of our economies and societies by ensuring Europe's competitive leadership in the global race for technology. This involves improving the environment for business R&I investment, deployment of new technologies and enhancing the take up and visibility of research results in the economy and society as a whole.
4. **Deepening the ERA:** to further progress on the free circulation of knowledge in an upgraded, efficient and effective R&I system, in particular by moving from an approach of coordination towards deeper integration between national policies. The ERA will continue to promote adequate framework conditions and inclusiveness, help develop the skills that researchers need for excellent science, and connect all actors across Europe, including in education, training, and the labour market.

While the 'old' ERA was hampered by the paradigm of research excellence as 'first and only' criterion, the new ERA is opening-up to the broader ecosystem approach. Knowledge is produced in distinctive, unique innovation ecosystems each having their strengths but often poorly connected and without a coherent policy framework. The ERA is a 'space' where this vital knowledge can circulate and multiply among European research and innovation actors. Place-based innovation policy in the context of the new growth model should be at the heart of any attempt to structure cooperation between these heavily localised knowledge ecosystems. Therefore, the new ERA could become a new governance model for a truly European research and innovation system on the condition that it can implement a multi-level governance structure for involving all policy levels and all policy fields concerned in fine tuning their priorities and jointly undertaking necessary investments.

9.1 Improving and modernising ERA governance: what smart specialisation can bring to the ERA table

Smart specialisation can provide a strong positive response to the unfinished business of coordination of European, national, and regional investments for research, innovation and systemic transformation, and therefore a guiding principle for a 'true ERA' which could benefit from the practical experience of smart specialisation to improve and modernise ERA governance. Smart specialisation can bring four important contributions to ERA governance that do not need to be 'reinvented':

1. Smart specialisation is a strategic approach to efficient budget allocation and effective cooperation with an evidence-based prioritisation principle. Beyond the lobbying of vested interests or diluting resources among all stakeholders, there must be a political will to develop a strategic capacity to make choices. Smart specialisation holds the promise that all countries and regions can find their niches if they invest in their unique capabilities. Smart specialisation becomes more important when fiscal policies are dominant for recovery, and budgetary expansion has to be monitored with acceptable conditions.
2. Smart specialisation offers a specific methodology for choice making, informed by the best available knowledge in the 'entrepreneurial discovery process'. This methodology has experimented with participatory techniques and specific indicators within the local ecosystems and national governance. It is expanding at European level for intercluster cooperation and international partnerships (S3 partnerships) involving new entrepreneurial actors, as an alternative or complement for the classical high-level conferences or expert groups.
3. Smart specialisation is supporting the networking of specialised actors and access to specialised infrastructure (in line with the ESFRI ⁷⁶ programme). An example is the digital transformation where European strategies (for AI, cybersecurity, HPC, training) are combined with national and regional

⁷⁶ The European Strategy Forum on Research Infrastructures (ESFRI) was established in 2002 with the purpose of developing a European approach to Research Infrastructure policy as a key element of the emerging European Research Area (ERA). See [White paper ESFRI-final.pdf](#). "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

programmes in networks and infrastructures that are embedded in local ecosystems with different application focus. The present constitution of a network of European Digital Innovation Hubs with complementary specialisations is a typical challenge for the new ERA. The ERA can be a joint framework of Commission DG's for setting-up a real European digital platform for innovation services (pooling efforts at EU level with a division of labour as advocated by ESFRI).

4. The forthcoming National Recovery Plans would benefit from the integration of regional smart specialisation strategies (that identify the localised investment opportunities) and the ERA governance of European infrastructures for developing, testing, demonstrating and upscaling of innovative Green Deal projects.

9.2 ERA Hubs and smart specialisation

During the Research & Innovation Days (October 2020), Commissioner Gabriel announced the launch of 'ERA Hubs', as 'regional organisations similar to the EU's Digital Innovation Hubs'.

Based on a mapping of existing entities, and the analysis of potential gaps, an ERA Hubs 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.⁷⁷

FoSS welcomes the notion of ERA Hubs as an important next step in joining up research and innovation stakeholders within the region in multi-level governance for joint European objectives such as the Green Deal, because the ERA is the only institutional reference for research and innovation policy in the EU Treaty.⁷⁸ This opens up an important pathway for linking the ERA Hub to smart specialisation strategies which can support the coordination of regional research and innovation priorities and support interregional collaboration.

Therefore, a structured process for experimentalist governance⁷⁹ has to be prepared. This should avoid the pitfalls of duplication of the already in place national and regional arrangements for coordination, and also the replication of European policy fragmentation at the regional level, with multiplication of 'hubs' (Digital Innovation Hubs, EIT Hubs, ...) and regional outreach from different European policy sectors, which are not well synchronised. At the start of this institution building process, the role of smart specialisation in DG RTD policy has to be re-assessed as the lever for needed co-investments. The alignment of diverse European transformative strategies in real places is only possible with intermediation of smart specialisation, mainstreamed through all the policy domains.

The new ERA Communication is a great opportunity for research and innovation policies to play a leading role in the transformations needed for the recovery and the twin transition. The full implementation of the smart specialisation approach for efficient and effective coordination of investments – as it was designed for in the ERA originally - will provide the new ERA multi-level governance with the unique combination of a top-down European directionality with a bottom-up discovery process seeking new opportunities for all countries and regions.⁸⁰

10. Towards a new innovation policy framework for Europe

Turning promises into practice

Our papers in 2020 have all pointed to the high potential of smart specialisation for European transformative policies. But will it gain this recognition? 2020 will possibly be seen as a pivotal year for policy makers for two

⁷⁷ EC Communication of 30 September 2020 on 'A new ERA for Research and Innovation'

⁷⁸ In 2009, the Lisbon Treaty formally introduced the ERA (Article 179 TFEU) making the free movement of researchers, scientific knowledge and technology across Europe a formal objective of the EU. The Lisbon Treaty also opened the way for the EU to adopt legislation to enforce the implementation of the ERA (Article 182(5) TFEU).

⁷⁹ See Charles F. Sabel and Jonathan Zeitlin (ed), *Experimentalist Governance in the European Union: Towards a New Architecture* (2010)

⁸⁰ "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

reasons. First of all, climate change has become centre stage in transformative policy making with the European Union engaging for a climate neutral Europe by 2050.⁸¹ The need to counter climate change is driving the Green Deal which is Europe's overarching smart specialisation in geo-political terms. It identifies priority areas and embraces a transformational approach in building an economy that will contribute to the climate goals and one that will also adapt to a moving global context.

Secondly, urgent action is needed in Europe and globally to counteract the negative impacts of the COVID-19 pandemic. While there is a need for short term economic stimulus packages, the recovery plans earmarking increased investment in the green and digital transition are reinforcing the switch to the new European growth model and geo-political strategic autonomy. The COVID-19 crisis is perhaps a 'tipping point' but the financial crash of 2008 was already a warning sign of the instability of the current economic and financial system. A new post-crisis vision for economic development is needed with a governance built on democratic values and social and economic solidarity. The undeniably crucial role of citizens in this crisis unveils the power of civil society to build resilience, and because the regional and local levels are closest to citizens, this is a call for governance and leadership that involve all societal and economic stakeholders, and regions⁸² and cities in particular.

A call to innovation policy makers

FoSS call upon EU, national and regional policy makers to embrace regional smart specialisation strategies as drivers for transformation at European scale. These transformative strategies will need to focus on new perspectives on globalisation such as the rethinking of supply chains and the shift towards both sustainable and resilient economies. This will require action at three levels.

Firstly, **to upgrade the status of smart specialisation from a merely regional development strategy to a European regional alignment policy.** The added value of such European regional policy is to promote interregional collaboration and co-investment by stronger European transnational cooperation programmes which are linked to the European strategic partnerships, missions, and industrial policy. This means more international networking at the European level as illustrated by the smart specialisation thematic platforms⁸³ and the new I3 instrument and regional networks such as the Vanguard.⁸⁴ The new ERA Hubs should have a mission to coordinate European initiatives connecting smart specialisation strategies as 'smart complementarities'.

Secondly, **to arm the S3 with the necessary arsenal of efficient innovation policy instruments** to support the structural transformation of the economy at the regional and/or national level and on building learning capacity. Two measures that are intricately linked with place-based innovation deserve more attention: firstly, moving research and innovation activities to the market more rapidly through improved upscaling involving co-investment in joint demonstration activities, etc., and secondly, paying more attention to embedding skills strategies within smart specialisation strategies. Furthermore, regions must also develop a 'learning capacity' in order to take an experimentalist learning approach to important investment decisions. This allows regions to continually monitor policies and outputs and adjust their smart specialisation strategies.⁸⁵

Thirdly, **to make the identification and implementation of smart specialisation priorities for targeting innovation investment a continuous and more inclusive process.** It is now important to build on a new sense of social solidarity and engage a wide range of stakeholders (quadruple helix) in an Entrepreneurial Discovery Process towards a shared commitment for the region's industrial transition in order to position the region in current and future European value networks. Political leadership in pioneering cities and regions⁸⁶ shows in bold investments

⁸¹ [2030 Climate Target Plan | Climate Action \(europa.eu\)](#)

⁸² Regions and sub-national entities

⁸³ See <https://s3platform.jrc.ec.europa.eu/en/thematic-platforms>

⁸⁴ <https://s3vanguardinitiative.eu/>

⁸⁵ See <https://ec.europa.eu/growth/tools-databases/regional-innovation-monitor/report/annual/rim-plus-2013-2014-final-report-european-regions-support-industrial-renaissance>

⁸⁶ See Committee of the Regions (2016) 'Regional Innovation Ecosystems'

at the local level as well as in necessary alliances for European solutions. This provides a stronger impulse for effective multi-level governance which can help identify and combine funding sources from a range of public and private sources and seek synergies between (if not competing but often uncoordinated) funding streams.

Mobilising the potential of smart specialisation

In the coming period smart specialisation strategies will be stepping-stones for the national recovery plans and drivers of interregional cooperation in the strategic industrial ecosystems of the new industrial strategy. To make this happen European smart specialisation policy should be consolidated in governance, in the ERA Hubs and the European Semester. This policy approach can federate regions and cities with a European ambition. The implementation of the Green Deal and the Industrial Strategy requires political leadership in regions and cities to mobilise all resources, in particular, the most important: the hearts and minds of citizens.

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12. Bibliography for 2019 and 2020

- Mainstreaming Smart Specialisation in the EU R&I Framework Programme: challenges and opportunities. A view from a policy maker's perspective (Dimitri Corpakis) February 2019
https://www.academia.edu/40821869/Mainstreaming_Smart_Specialisation_in_the_EU_R_and_I_Framework_Programme_challenges_and_opportunities_A_view_from_a_policy_makers_perspective?email_work_card=view-paper
- The Green Deal and Smart Specialisation. February 2020
- A New Industrial Strategy for Europe: what role for Smart Specialisation? March 2020
- Boosting the European Green Deal through Smart Specialisation (Dimitri Corpakis). May 2020 [LARS-newsletter-5-May-2020.pdf \(lars-project.eu\)](#)
- Revised CoR Opinion on a New Industrial Strategy for Europe: input from Friends of Smart Specialisation. May 2020
- Smart specialisation in the European Semester: towards multi-level governance for co-investments in green and digital transitions. July 2020
- The ERA and Smart Specialisation. August 2020
- Response to the public consultation on the Interregional Innovation Investment (I3) supported by the ERDF. September 2020
- Background note to the request of the German Presidency to the Committee of the Regions 'The role of the EU's cohesion policy with respect to intelligent and innovative economic change in the regions against the backdrop of the coronavirus crisis', September 2020
- Thought Leadership Seminar DIH Net: '*Specialization and collaboration in the European Network of DIHs: Leading the way to a European Innovation Ecosystem and Infrastructure*', December 2020.
- Post-Covid-19 Recovery Policies: a call for aligned, place-based, and sustainable strategies. December 2020 (published in <http://symphonia.unicusano.it/>)

All the papers and articles referred to above can be found on the Friends of Smart Specialisation website <http://friendsofsmartspecialisation.eu/>