



Boosting the European integration process in a time of crisis through the Triple Helix: strengthening the delivery of EU policies for growth and jobs

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# HLX4EU: Final Report

## Preamble:

This is the final report of the HLX4EU ERASMUS+ Project, undertaken by the Triple Helix Association. The report aggregates the three areas which have been the focus of the project according to its initial design. For each policy area the report incorporates a relevant Policy Briefing that captures the particular setting and trends that predominate in the European Union policy context and sets out the possible benefits of incorporating ideas, beliefs and practices coming out of the Triple Helix lens (cooperation between University, Industry and Government) for improving policy design and delivery on the ground in the European Union. Relevant workshops and webinar reports held in the context of the project are also reported.

## Context and key aspects:

At the moment the project proposal was submitted to the Commission Call for consideration, the European Union was at a turning point. Having sustained well the 2008 global financial crisis (albeit with a rather high social cost especially in terms of youth unemployment that continues to be unacceptably high in some countries) the EU faced challenges affecting directly its integration process that have not been resolved yet. The first challenge consisted of the risks that surrounded the then fragile Economic and Monetary Union (EMU) that put the young common currency at risk (the Euro crisis). While finally the Euro resisted well, due to sustained measures by the Euro countries and the European Central Bank, the resulting socio-economic cost was high. Several countries, in particular those presenting a high public debt ratio, had to apply severe measures of fiscal consolidation and questionable austerity policies, that took a toll on the economy and society, hitting particularly younger people. These developments have taken place in a context of (and were also seen as a consequence of) rampant globalization, resulting in reduced employment opportunities, increased international competition (seen also as an unfair one by many analysts) and a lack of confidence to the (ever developing) European project. In addition, the unprecedented decision of the people of the United Kingdom to leave the European Union (Brexit) had cast doubt on the future of the European integration process. These trends had also fed populist views to the point of threatening the very fundamental ideas on which the EU was built.

The mobilization of reason and the willingness to protect the European achievements, helped to redress vigorously the socio-political threats hanging over the European process. In addition, major achievements of the European economy, helped redress trends regarding unemployment and painted a brighter picture of the EU. However decision-makers are well aware of the fact that this may be a temporary victory, as the real debate about the architecture of the EU is only about to start, now (September 2020) delayed seriously by the global coronavirus pandemic. This will be accompanied by the very important discussions on the next Multi-annual financial framework (MFF).

In this context, the Triple Helix Association (THA) felt that boosting the dialogue among the key players of the societal progress process (universities, businesses and government together with the broader civil society) could identify better problems, engage a frank and creative mutual learning process and inspire solutions. This type of dialogue can identify new ways for boosting key European Union policies with a heavy socio-economic focus and impact for the continent and the European integration process.

## **Background and Rationale:**

The Triple Helix Associations basic premise is that social progress stems from close cooperation and initiatives between universities, business and government in close association with civil society. This type of cooperation has become by now the norm in every major programme in research, education or social innovation. As such it is applied tacitly by most innovative and front-running institutions and businesses that see in its model the optimization of efforts that need to be invested as well as the advantage of synergies and complementarities induced by this systemic approach. The Triple Helix model has thus become a powerful intervention instrument in the hands of the policy makers. And as such, several European Union policies benefit already from its merits (e.g. the EU Research and Innovation Framework Programme (Horizon 2020 as well as all its predecessors); programmes on innovation and entrepreneurship (COSME) etc.).

It was therefore clear that there was a major opportunity to support better the most important EU policies through a specific Jean-Monet project that would be initiated by the Triple Helix Association as an Innovation project, through:

(1) The design and delivery of a literature review that would identify the best ways of using the philosophy and key components of the Triple Helix approach and dynamics, for supporting key European policies, focusing in particular on the most influential and performing players of European societies (universities, businesses, governments – in particular local and regional governments – and the civil society);

(2) The organisation and delivery of specific workshops in key European locations. These workshops would be in line with the aforementioned literature review and provide an immediate practical, hands-on implementation. They would focus on:

- (a) Reforming the higher education institutions in the EU, that could be well playing the role of efficient innovators and multipliers of the key concepts that build together the European ideal;
- (b) Boosting innovation and entrepreneurship, supporting the business growth strategies of the European Commission (in particular young innovative SMEs);
- (c) Supporting the European Commission strategies on smart specialisation for a place-based innovative regional development, boosting growth and jobs.

# Executive Summary and Synthesis of Findings

## Objectives:

The project (HLX4EU) had a clearly identified objective: to showcase how to improve the efficiency of the delivery of key European policies on the ground, by harnessing the power of the Triple Helix. Furthermore by conducting a literature review that lasted throughout the execution of the project (integrating also appropriate feedback from the workshops conducted, where relevant) provided new insights to our knowledge base and identified key ideas that have to be at the centre of attention of European policy makers when designing and delivering policies and strategies at European, national, regional or local level.

HLX4EU focused on a particularly thorny issue of European policies, namely appropriate delivery on the ground. While the successive introduction of several new Treaties have expanded and redefined the competence of the European Union in many areas, many citizens still fail to identify the link between policy design and policy delivery in their everyday lives. The democratic process through which policy is designed, tested, decided and delivered is at best, not well understood, at worst, not fully applied or effectively implemented in ways that are not always optimal. Institutional processes that involve the services of the European Commission, the Committees of the Council of Ministers, the European Parliament and Consultative bodies like the European Committee of the Regions or the European Economic and Social Committee (including at various consultation levels, expert groups or individual experts) are complex and less understandable by the public. While the process is fully predictable and clear to institutional players, it may appear obscure and less credible at times towards the civil society that ends – up becoming suspicious about its outcomes. The result is a growing distance of citizens from the European integration process.

HLX4EU tried to put the power of the Triple Helix approach (cooperation between universities, businesses and government) at the service of the European policy delivery. It sought to position better and highlight the analytical and synthetic capabilities of academic institutions in particular policy areas that require a particular approach while also involving the full potential of the business community. The multiple ways in which Triple Helix partnerships are able to facilitate and enrich European policy delivery in association with Civil Society (Quadruple Helix) can make a real difference for the citizen, especially in areas like Higher-Education reform and development, business innovation and entrepreneurship and smart regional policy (place-based growth strategies in the knowledge economy through smart specialisation).

## What the project achieved:

The project focused on three (3) specific areas that illustrate well the problematique of EU policy delivery on the ground, namely (a) higher education reform in a context of continuous European integration (b) business innovation with particular focus on start-ups (c) place-based policies for smart regional development. In all three areas, novel approaches were analysed,

discussed and tested, based on the particular models that derive from a Triple / Quadruple Helix approach (cooperation between university, industry and government). This led respectively a higher focus on the concept of the Socially Responsible Entrepreneurial University, on the concept of Responsible Research and Innovation as a driving and integrative force behind innovative start-ups and finally on the structural role that the Triple/Quadruple Helix could play on a more successful implementation of the Entrepreneurial Discovery Process (EDP) which is the cornerstone of Smart Specialisation Strategies (S3, RIS3).

In all three areas, a Policy Briefing accompanied a Literature review. The Policy Briefing gave a concise picture of the policy area in a EU context, providing the big picture on the institutional background, basic historical landmarks in combination where relevant with key academic references and reports. The literature reviews identified the main trends in academic research pointing out the potential roles of the actors of the Triple Helix in shaping up and delivering policy in the respective areas.

In each policy area a conference was organised involving leading academics, members of the business community and policy makers. The conferences were completed with related webinars organised by the Triple Helix Association, that highlighted particular topics linked with the respective 3 areas and reached a wider audience. The webinars are all archived on the Triple Helix Association website (<https://triplehelixassociation.org> ).

Conclusions and policy recommendations are identified in detail in the relevant parts of this report. Here we will attempt a summary that without being exhaustive will highlight some key recommendations through which we believe EU policy planning and delivery could significantly improve through a co-creation and co-delivery process involving the key parts of the Triple Helix model.

### *Higher Education Systems*

The first component of the project focused on structural transformations taking part inside higher education systems and in particular on the evolving role of the concept of entrepreneurial university as a constituent part of the Triple Helix and its societal impacts. A special consideration was given to the role universities are called upon to play in the context of evolving innovation ecosystems. Ongoing and emerging societal changes demand broad roles from universities and these have an impact on the internal fabric of the university. Transformations in both society and universities call for a renewed understanding of the nature of university as well as its roles in society.

This part of the project focused extensively on the continuing transition from the model of entrepreneurial university to that of a sustainable entrepreneurial university (SEU). A particular issue that was identified was the one of the possible evolution of the model (which currently focuses extensively on the economic impacts of an entrepreneurial university) towards another that focuses on sustainability, while maintaining its economic interactions. A possible path is the conceptual framework of responsible research and innovation that puts an emphasis on the notion of 'societal responsibility' and in doing so addresses the particular characteristics of a Sustainable Entrepreneurial University and the breadth of its societal

engagement. This was done mainly in a European context, looking also on the related implications for the innovation ecosystem in which universities are an integral part.

Some particular dimensions were identified, for example: the university tends to be more engaged with society; the capitalisation of knowledge is in the centre of university's societal engagement; while university is more interacting with the government and industry, it may become more independent in decision-making; by taking cross-border actions, universities are involved in an environment of multiple logics, which provide the sources and dynamics for innovation; while being an entrepreneurial university, it has to take risks for innovation and being different; an entrepreneurial university requires the involvement of all members of the university and support of entrepreneurial culture. Such dimensions stress the important differences between the so-called 'Ivory tower' university, 'entrepreneurial' university and the 'innovative entrepreneurial' university types, that all three are present in the European HE system. This calls for a consideration of the major emerging roles of the Sustainable Entrepreneurial University inside the European Innovation Ecosystems.

The first emerging role of SEU is reflected in the change that university is becoming an anchor organization or transformative space for knowledge exchange rather than one for technology transfer. The major difference between technology transfer, as a key role of entrepreneurial university in regional innovation, and knowledge exchange, which is fundamental to value co-creation that characterise the innovation ecosystem, is that the former is a one-way knowledge flow while the latter is bi-directional. The second emerging role of SEU is for trust-building between actors in innovation ecosystems, which is fundamental for co-innovation networks in an innovation ecosystem. Due to its trustworthy status in the society, university not only builds connections between actors across sectors via alumni and research partnership mainly reflected in the model of entrepreneurial university, but it can also build trust among them for developing co-innovation networks. The third emerging role of SEU is the expansion of entrepreneurial university's societal engagement for institutional change. Compared to the role of entrepreneurial university for improving regional competitiveness and attractiveness, the SEU becomes a key agent in changing /optimising the institutional environment of the region.

HLX4EU has thus contributed to further understanding the transformation of universities in innovation ecosystems, highlighting an ongoing integration of broader social responsibilities and sustainable development goals into the three institutionalised missions of the university, namely on teaching, research and innovation. The new features of SEU are concerned with the changes in its operating environment and its roles in societal engagement. For instance, universities not merely engage with industry and government but citizens are now becoming an increasingly important stakeholder. The operation scale of universities has also expanded from the local and national to global. The three emerging roles of SEU in innovation systems can be summarised as follows: 1) SEU as a transformative space for knowledge exchange, 2) SEU as a trust builder, and 3) SEU as an institutional entrepreneur. A first recommendation could thus be to further cultivate and strengthen these roles in the context of the European Innovation Ecosystem.

A second recommendation concerns the strengthening of the university's global cooperation role in the context of EU's policies. While universities in innovation systems often have a local

focus, their engagement in innovation ecosystems comes across geographical locations. When the EU's innovation strategy calls for effective ways of integrating research, innovation and application, it also stresses the importance of international cooperation on innovation. However, in current higher education policies and practices, international research cooperation is primarily for research excellence within academia, lacking interactions with other activities in global innovation networks with more emphasis on place-based policies.

A third recommendation concerns the 'policy mix': as universities are in a transformative space engaging with multiple stakeholders, higher education policies should also be a kind of 'policy mix'. The concept of 'policy mix' has been used by scholars to investigate the formation and implementation of innovation policies in a multi-level, multi-actor context. Currently, higher education policies are mainly developed almost exclusively in a higher education context. However, seen from a different perspective, stakeholders from different sectors should be further involved in higher education policymaking. National and regional policies in higher education should then become more integrative, and effectively address the changing roles of universities in innovation ecosystems, e.g. for co-creating and advancing on sustainable development goals.

### *Innovation and Entrepreneurship*

The innovation process has taken a completely new turn at the last part of the XX century, marked by profound acceleration and novelty, affecting all facets of the economy and society. Technological disruption went hand in hand with economic and social transformations that have a profound and lasting effect on societies of the XXIst century and whose nature is largely unpredictable. In addition, new forms of social interventions have been identified as social innovation practices and have contributed to a new approach in dealing with social and economic problems.

Entrepreneurship and innovation are thus identified as major drivers for economic and social progress in this beginning of the 21st century, and as such they have been at the focus of European Union policies, a long time ago. The Triple Helix can amplify their impact in substantial terms, by organising better their emergence and practice and by stimulating performance. The key players in national and regional innovation eco-systems are the constituent parts of the Triple Helix. Governments, firms and knowledge institutions (including all forms of higher education, public and private research centres and vocational training organisations) are all parts of complex systemic interactions that determine the level of technological advance and awareness of countries and regions.

The project reviewed the major theories around technological and innovation diffusion (*Ecological Modernization Theory, Diffusion of Innovation Theory, Complex and Adaptive Systems Theory, Institutional and Stakeholder Theories*). While there is wide diversity in the theoretical frameworks introduced, the core constituents to a large degree remain the actors of the Triple / Quadruple / Quintuple Helix (government, academia, industry plus the civil society in an environmental socio-ecological context).

The Triple Helix mechanisms facilitate a genuine Open Innovation process to flourish. Mobilising cooperation between knowledge institutions, the business community and

governments, makes it easier for creating the appropriate frameworks for igniting and reinforcing innovation.

A Triple Helix approach ensures that government has active communication channels with the business community (which effectively drives innovation), ensuring a trustful environment. In this endeavour it is supported by the knowledge institutions who, in their turn provide expertise and may also undertake specific initiatives to accompany or initiate innovation. They can also, *'take the role of the other'* and become entrepreneurial, in which case they can advance initiatives, setting up spinoffs and startups in cooperation with businesses, supported by appropriate framework conditions, set by government.

Focusing on a synthesis of an appropriate TH approach on the ground, a new model for entrepreneurial discovery and implementation practice (EDIP) is of particular interest: EDIP identifies four strategic responses to the challenges outlined above. This model depicts four distinctive implementation steps to support interregional collaboration strategies and the successful mobilization of interregional cooperation networks. The model refers to a new type of public authority intervention based on effective triple helix interactions between government, industry, and university. Triple helix governance involves a multistakeholder platform for strategic engagement, which goes beyond what some authors call 'entrepreneurial government', carrying the risk of developmental policies and investment decisions. Triple helix governance mobilizes decision-making capacity across the public and the private sector, and puts the university and the education sector as a whole, at the heart of growth strategies – both as providers of skills and innovation outputs.

Particularly relevant for the EU regional policy innovation landscape, this new model for Triple helix governance rests upon pro-active governments, collaborative business and entrepreneurial universities that are capable collectively to translate policy objectives into investment strategies and to mobilize the knowledge providers for strategically co-aligned development projects.

Furthermore, the new industrial revolution may bring new benefits to laggard or less performing regions, on condition that a structured adaptation process is pursued, focusing on building comparative advantage, upgrading skills, and identifying the steps that could lead to a new profile, integrating new technological capabilities and resulting in a new positioning in the global marketplace. Countries and regions that are able to integrate the new platforms and position themselves accordingly, may compete in the global economy. Those that have difficulties doing so, will see themselves marked by a dangerous marginalisation process that may be difficult to reverse. Thus the accelerated innovation process has winners and losers. This process may create more inequalities than thought before as it has been recently shown in the current public debate about the 'geography of discontent'. 'Left behind places' may also have unpredictable social and political behaviour and reinforce populist movements.

All things considered, Europe has so-far failed to exploit fully its potential for innovation-based growth, despite numerous long-term innovation-oriented structural policies (including the efforts of the European Structural and Investment Funds). Leading problem areas include: (a) A host of Structural deficiencies block the EU innovation system (b) The Union seems to lack the ability to transform knowledge into world-leading commercial products and services

(market-creating innovation) (c)Europe has great difficulties addressing transformative innovation; in particular achieving higher degrees of specialisation in new innovation based growth sectors and firms (d)Many commentators argue about the fragmentation of EU's science, technology and innovation system: we are indeed missing "European Innovation Value Chains" (e)Countries and regions still unable to form a better integrated European Innovation System.

The fragmentation of the European Innovation System is hardly surprising, given the fact that the Union is made up of 27 Member States. However, the current state of play is unsatisfactory compared with the massive deployment of efforts at European, national and regional level. The quest for better coordination proves inefficient, since it stumbles upon a host of socio-economic, political and cultural differences. So instead of coordination, it would be probably better to pursue a policy that has stronger shared values and could probably lead to improved shared understanding of priority areas for co-investment, using all available instruments, policies and programmes (towards a new European Research Area).

Bottom-up approaches and initiatives could be inspired by the spirit and the methodologies of Smart Specialisation, where the Entrepreneurial Discovery Process (combining genuine bottom-up entrepreneurial drive with top-down federative action for optimised delivery) provides a genuine method for shared priorities and shared co-investment. This approach can be enhanced by the values of Responsible Research and Innovation (RRI) that ensures a permanent dialogue with society and provides moral safeguards about the direction of investment. RRI provides also a solid conceptual framework for better governance of the European Innovation eco-System, ensuring a multilevel approach that guarantees diversity as well as respect for all layers of society.

### *Smart Specialisation Strategies*

The project took a special focus on the concept of Smart Specialisation, its capacity to drive forward regional innovation ecosystems and the ways it can be boosted through the power of the Triple Helix, namely the intensive and multi-faceted cooperation between universities, industry (including the wider business community) and government (regional, national and European levels).

Over the last ten years the concept of Smart Specialisation has gained in importance. Introduced as an academic idea by a group of economists in 2009, working on the question of the impact of knowledge creation on economic growth, it was soon catapulted as a necessary condition (ex-ante conditionality) for accessing Structural Funds support for research and innovation projects within the European Structural and Investment Funds Operational Programmes of the EU Member States (2014-20) exercise. Today (September 2020) more than 120 Smart Specialisation Strategy schemes are in place in the Member States, pushing seemingly innovation forward. However the efficiency of these schemes is still widely questioned as they have been put in place rather in a haste, applying a concept which still lacks clarity in its theoretical as well as in its operational principles.

The EU came to adopt and apply the concept of Smart Specialisation (S3, for Smart Specialisation Strategies) after a long evolution over the basic ideas found in the Treaties that culminated after several substantial reforms, accompanied and supported by a continuous evaluation and monitoring process. Starting from the basic premise that Cohesion policy was a much needed counter-measure to the establishment of the Single Market, several progressive transformations in the rules of engagement of the Structural Funds led to the concept of Territorial Cohesion introduced in the latest Treaty (the Lisbon Treaty, 2008). This gave significant emphasis on place-based policies, interregional cooperation, territorial connectivity and exchanges as well as a better management of resources.

The debate that led to S3 was heavily influenced by contrasting economic theories over growth and in particular how specific territories grow. That debate intensified over the 90's and took a different perspective with the advent of the Internet and the proliferation of new information and communication technologies that led to rampant globalisation and huge structural transformations in many industrialised countries. Global value chains (GVC) have restructured production around the globe and led to many new winners and losers in territorial terms, since a new rationality modified the spatial weight of places in economic terms. With few innovation hotspots in Europe and lots of declining industrial regions, economists have looked into remedies and essentially were divided between two camps: people-based and place-based policies.

People-based policies put an emphasis on the importance of developing human capital irrespective of places; this led to the so-called location-blind policies, focusing on people's actions and expecting many spill-over effects in a maximum of places. A different view however slowly overcame the thinking of economic geographers and regional policy makers, focused on the predominant characteristics of places that should be fully taken into account when thinking of economic growth policies. In this context the Barca report (2009) reinforced the move towards place-based policy thinking and opened the way for the adoption of a new concept that would completely change the way regional policy is designed and delivered in the EU, namely Smart Specialisation. However this debate was heavily influenced by the one on what could be understood as 'industrial policy', an overall controversial concept.

The discussion of different models of industrial policy has identified seven distinctive approaches for identifying priorities and policy aims –all of which are with already known deficiencies: old vertical industrial policy (import substitution, foreign direct investment (FDI) and private sector R&D); new horizontal industrial innovation policy (providing a regulatory framework for innovation-driven industry transformation), open laissez-faire model for incentivising industrial change; binding constraints to growth (no actors or agencies have a panoramic view of the economy, constraints for growth are not known and hence -picking winners as 'stars'); product space method (blurred domestic and foreign markets—hence, dealing with relatedness of activities and sophistication of products); new structural economics (relying on economic structure and structural change as drivers of technology upgrading and developing specific policy instruments enhancing comparative advantage for outward FDI and trade); Schumpeterian approach (stimulating innovation-led growth and fast turnover of firms by smart and strategic governments, combining technology with institutional variables and driven by the country's position vis-a-vis technological frontiers); neo-Schumpeterian approach (Learning through policy experimentation and experimental

governance, or searching for alternative paths to catch-up with forerunners); process (evolutionary) view of industrial policy(not focusing on the policy outcomes, such as Specialisations or diversifications as these are inherently unknowable ex-ante, but on the design of the “discovery processes” and developing institutional setting that balances autonomy and embeddedness, the emergence of policy as a process based on a “recursive learning mechanism and dynamic accountability through peer review”); and EU smart specialisation policy (mobilising knowledge for growth, aiming to reconcile two logics: vertical prioritisation with dynamism, entry, competition, and entrepreneurship).

Smart Specialisation policy introduced a structured intervention by public agents (that in principle are in the process of planning public investments for economic development) that has the key feature that is not organised in a top down fashion but stimulates participation of all players of society, engaged in different forms in the economic process. This is very close to a Quadruple Helix operation, where knowledge institutions, businesses, but also chambers of commerce, business associations and the civil society are invited to participate in a groundbreaking mechanism that is the Entrepreneurial Discovery Process (EDP). Through the EDP (which is a key learning process), local communities are able to identify the drivers of future growth, taking into account aspects of the present (current capabilities, specialisation sectors, promising openings, modernisation and competitiveness issues, issues of related variety in current clusters and connectivity with European and global value chains). The result however is not neutral, since it involves some heavy and critical choices over a number of priorities (winners and losers). Foray stresses that there is indeed a ‘principle of prioritisation in a non-neutral manner (to favour certain technologies, fields, populations of firms)’ and identifies a methodology to achieve this.

The EDP is a complex exercise in identifying, evaluating, valuing and operationalising the assets of a region that can be put forward, through a local consensus, as the important growth drivers of tomorrow. As the relative European Commission guidance suggests, this may be straightforward in some high-growth, high-powered places, but it is a rather difficult and risky exercise in problematic regions that are usually deprived of clear development perspectives. This creates a particularly thorny problem about the fate and the credibility of EU policies, since a potential failure in the design and delivery process of Smart Specialisation would almost automatically be reflected in the credibility of EU policies. Cohesion policy in particular has been for a long time the easy target for critics of EU policies, being repeatedly accused of wasting resources and inefficiencies. It is thus precisely at the design and implementation phases of Smart Specialisation that the Triple/ Quadruple Helix can come to the rescue.

By its very nature the Triple Helix approach, building on close cooperation between University, Industry and Government, can reinforce the concept of the ‘learning region’ which in turn can advance the quality and the efficiency of the relevant innovation ecosystems. The resulting multi-stakeholder dialogue can contribute to better mutual understanding of interests and capabilities resulting in better learning and faster achievements in innovation-led growth. The benefits of cultivating a multi-stakeholder approach through the Triple or Quadruple Helix are many: concepts like inclusiveness, transparency and accountability are boosted and thus a new quality among knowledge producers and knowledge users is built. Learning regions applying Quadruple Helix models are better placed to engage in genuine EDP processes and achieve successful Smart Specialisation Strategy effects on the ground.

The Entrepreneurial Process of Discovery can thus be strengthened by the Triple Helix Model: applying sound cooperation processes between strengthened and well informed Triple Helix partners (universities, businesses and government associating the civil society) can really boost the overall process, elevating quality of interaction and bringing all views on the table. As a cornerstone of S3, a Triple Helix powered EDP can result in a far better, more balanced and better informed strategy.

Smart Specialisation is a broader process that owes its origin in the efforts for an improved and more performing European Research and Innovation Ecosystem. As the European Union is not a single country, it brings naturally a host of diversity in the architecture and function of its R&D and Innovation systems of its constituent Member States. However, the European Research Area (ERA), a concept first introduced in the early 2000, is now firmly rooted in the Treaty of the European Union and is now experiencing a rebound, especially under the Von Der Leyen Commission. The ERA, an ‘internal market for research’ and later also for innovation, was thought to be reinforced by the widespread adoption at regional level of the concept of Smart Specialisation, a concept that was enclaved for a number of reasons only in the policy boundaries of Regional Policy. However, a wider mainstreaming of Smart Specialisation in other Union policies (like the Research and Innovation Framework Programme, Enterprise and Industry, Environment and Energy to name the most prominent among them) would be beneficial for the Union. Mainstreaming here would essentially mean a consistent process for identifying and prioritising future investments for growth and jobs, a process that would be able to combine a top-down direction (given for example by the top governing instances of the European Union like the European Council, the Council of Ministers and the European Parliament) with a bottom-up identification process by Europe’s regions running Smart Specialisation. Applying consistently Triple Helix concepts in the inner architecture of Smart Specialisation could genuinely strengthen its ability to improve the structure and performance of the European Innovation System.

Furthermore it is not considered sufficient to simply improve capacities in less developed member states in relation to research-driven growth, but rather to draw the lessons from the more-developed regions, to look beyond traditional science, technology, and innovation policies, to embrace social entrepreneurship, and to experiment with established best practices in Europe.

A stronger coordination between Smart Specialisation strategies and the European Union’s industrial and competition policies is also required as part of the vertical governance mechanism. At the national level, there is a requirement of developing a portfolio of related and complementary projects instead of a series of separate individual projects—to generate critical mass and synergy effects. Further challenge is to integrate the existing innovation infrastructure of Research Centres of Excellence, Centres for Collaborative Research, Science and Technology Parks and Incubators—in collaborative arrangements with the private sector—to strengthen the disconnected production system.

Accelerating the knowledge-based innovation and growth would require to balance supply- and demand-sides. Both types -user, market, demand (social innovation), as well as company, employee and researcher-driven innovation—have to be integrated in to an overall approach

to innovation policy, as knowledge is a far broader concept than R&D and requires efficient bridging across the Triple Helix.