

Towards an integrated EU approach for interconnected innovation ecosystems and industrial value chains

The case for an ambitious and assertive EU industrial policy is stronger than ever. The urgency to achieve the twin transition can be found as cause of this need, alongside the weaknesses and dependencies of the EU competitive position that were shed light on by the Covid 19 crisis and the war in Ukraine.

Building on the updated EU industrial strategy from May 2021, the European Commission has proposed a set of new initiatives giving concrete expression to its revamped approach of industrial policy, e.g. Industrial Alliances, IPCEIs, the Chips Act, the Carbon Border Adjustment Mechanism, the regulation on Foreign subsidies, the HERA,... The European Council leaders recently pointed out the need to pursue bold action to address EU key strategic dependencies, acknowledging the need to act both at EU level through enhanced industrial cooperation, interconnection of ecosystems and strengthened R&I capabilities and at the global level. The need to foster investment and mobilise public and private funding towards entrepreneurship, innovation and twin transition challenges was also underlined.

Since its establishment, the Vanguard Initiative has called for the adoption of an ambitious EU industrial Strategy. We have been piloting new approaches and Vanguard Initiative's model of interregional collaboration along industrial value chains, based on smart specialisation principles, has been largely recognised by a wide range of partners and institutions. This Vanguard Initiative model has, even more, been up scaled as a model for EU policies, notably through the Thematic Smart Specialisation Platforms and the new Instrument 'Interregional Innovation Investments' (I3). Vanguard member regions are committed to play an active role in the renaissance of European industry and to contribute further to EU policy developments.

We strongly support new impetus given to the EU industrial policy, and we propose to seize this opportunity to develop a joint EU framework that addresses a number of issues and key industrial challenges. The upcoming communication on Innovation policy offers the occasion to develop such framework. We therefore we would like to raise attention to the following points:

- **A more structural approach should be developed to address industrial competitiveness challenges, through a toolkit applicable to any value chain or ecosystem.** The challenges that the EU is facing in specific sectors like chips/semi-conductors at this very moment could certainly arise in other domains. The types of market failures and EU weaknesses identified for the semi-conductor industry were also identified by us based on our experience in other industrial fields : costs for

developing R&I capabilities and infrastructures, fragmentation of funding which implies lack of private and industrial engagement and do not enable cross-regional collaboration, valley of death between research and production, lack of capabilities in SMEs to adopt new technologies (skills, access to expertise and state-of the art innovation infrastructure and pilot lines, IP management).

The need to reduce costs, lower technology uncertainty and to speed up market uptake of new technologies for more advanced industrial production systems and for the establishment of new value chains is relevant in many areas, and notably those linked to the twin transition. This is highlighted in the recently published 'ERA Industrial technology roadmap for low-carbon technologies in energy-intensive industries'¹.

- We therefore continue to call for the further development of **new funding mixes and financial tools that allow joint investments in open innovation based projects across borders, with a facilitated access to expertise and services for European SMEs**. The Chips Act proposals open the way for choosing new approaches. These proposals should be the basis for a wider EU policy framework for supporting collaborative action in developing networks of innovation and technology infrastructures, open to SMEs and facilitating demonstration activities, market uptake of technologies. Such framework should be replicable for different topics and settings, without entailing heavy procedures.

The Vanguard initiative network has developed experience in piloting such collaboration, but market failures remain to be solved to fund such approaches and de-risk investment. The new Interregional Innovation Investments instrument (I3) can be part of the solution by facilitating collaboration, but it does not address the investment gap for creating, linking, upgrading and operating such networks of facilities.

- Regulatory aspects, need for experimentation, sandboxes, test beds, living labs, IP management,... are part of services and framework landscape that SMEs need to accelerate their innovations. Especially start-ups run into difficulties if regulations do not match the new technology needs and innovations are on hold, leading to the loss of those start-ups to regions outside of the EU. The Vanguard Initiative fully supports further development of EU initiative in those fields.

¹ https://ec.europa.eu/info/publications/era-industrial-technology-roadmap-low-carbon-technologies-energy-intensive-industries_fr

- Priority should be given to the fostering of **innovation ecosystem collaboration** at all levels and identification of areas with potential for enhanced collaboration between relevant actors. This calls for an enhanced multi-level governance framework, allowing stronger synergies between policies at EU, national and regional levels, but also increased synergies between different EU instruments. Synergies between EU tools should be ‘by design’ and not developed ex post. We face a very complex EU landscape and the way the different tools interact is not explicit e.g. articulation between HE Partnerships, Industrial Alliances, Innovation ecosystems, I3, S3 platforms, Euroclusters, IPCEI.... We see margins for efficiency improvement in this landscape, also from the end-user – e.g. SMEs perspective.

The Vanguard Initiative has also gained experience in collaborating between Horizon Europe partnerships and reaching out to regional ecosystems. Such collaboration could pave the way for more structural synergies between more top-down and bottom-up initiatives².

The approach of **smart specialisation strategies and an EU framework for developing collaboration between initiatives at regional level, linked to EU priorities** could be instrumental in developing complementarities and harnessing the regional innovation potentials. To this regard, the Partnerships for Regional Innovation (PRI) proposed by the JRC and the Committee of the Regions as a concept to enhance the coordination of regional, national and EU Research and Innovation policies to implement the twin transitions seems a step in the right direction.

The case for more connections between regions and ecosystems doesn’t lie only in bridging the innovation divide. There is a strong case for more interconnections in developing critical masses and complementarities for solving ever more complex problems, in harnessing regional potential for deployment of innovation and innovative solutions, in supporting more complementarities in investments (and enhanced efficiency) and developing EU value chains.

- **State aid issues** should be addressed at different levels : taking into consideration state-of the art innovation policies – open innovation, user-driven policies, networking, ... and the need to support further uptake of innovation to bring solutions for twin transition to the market and their uptake, notably by SMEs, the need to develop EU networks of pilot and demonstration infrastructures and collaborative approaches,....State aid rules are momentarily designed for a national

² See for example : <https://www.s3vanguardinitiative.eu/news/official-signature-cooperation-agreement-between-vanguard-initiative-and-effra>

perspective only. They hinder the development of EU collaboration as no specific rules are designed to facilitate interregional collaboration for innovation. The IPCEI framework is highly complex and not adapted to promote much more collaboration aimed at supporting innovation in SMEs (e.g. through interregional vouchers schemes). As Vanguard Initiative, we see that regions are more flexible and closer to SME and start-ups, who are often quicker and more risk taking than bigger companies in bringing innovation to the market. Regions should thus get more options to be involved in setting up new value chains in Europe based on breakthrough technologies needed to answer our challenges in regard to climate, sustainability, digitalisation and resilience. An improved IPCEI framework fitted to support inter-regional collaborations for developing new value chains could be a successful way of bringing needed innovations faster into markets.

There is also a case for supporting more effectively open innovation infrastructures and state aid rules can be a bottleneck. Here again, the Chips Act proposal acknowledges the need to revamp the EU approach, and we see a case for an improved EU framework to facilitate collaboration for innovation and market uptake of innovation.

- **Talents and skills issues** is a burning issue for industry and for SMEs and the Vanguard Initiative fully support the need to develop effective action on this topic in the framework of the innovation policy.

The Vanguard Initiative remains committed to contribute to this complex discussion, to share experience and to pilot innovative solutions and policy experiments.