

Recommendations for the update of the EU Industrial Strategy

In March 2020, the European Commission published a new strategy to support Europe's industry in the green and digital transition and increase the resilience of our European ecosystems. It aims at driving Europe's competitiveness and its strategic autonomy. The COVID-19 crisis has challenged us as a society and our industry in many ways, has disrupted our value chains, and has accelerated trends, of which many have come to stay. Therefore, the European Commission will update the Industrial Strategy with the learnings from the crisis. The following recommendations for this update contain contributions from the industrial cluster community in Europe and were submitted to the „Industrial Forum“ of the Commission, a high level expert group with representatives of Member States and stakeholders from industry organisations. The European Clusters Alliance is member of the Industrial Forum.

Lessons drawn from the COVID-19 crisis of relevance for our industrial strategy

Lesson 1: Resilience as an important property of the network

Being part of a collaborative network has proven to be a very important asset during the crisis. Companies participating in clusters at national, European, and international levels were more likely to diversify their solutions and adapt to the new realities. They were more resilient. The concept of resilience is a key determinant for our ecosystems to face unexpected challenges. During the crisis we understood that resilience is a property of the network, the European Network, and not of single entities. A network that facilitates strong and numerous connections between their members and with other networks is far more flexible and resilient than those having few of them, and of course far more than individual enterprises acting on their own. We must pay more attention to where and how our value and supply chains are organised. Companies must strengthen their network across Europe to be more resilient.

Industrial clusters are probably the most effective stakeholders to improve the resilience of our ecosystems. They are physically close and present in SMEs' daily activities. They represent all sectors of the European economy, but frequently they are not strictly sectoral, but rich in cross-sectoral members and linkages. Due to their network nature, they run many cross-sectoral projects at the same time, between multiple companies and researchers from different Member States. Clusters are probably the best tool for integrating science with economy, operating not only at the interface of these two environments, but "incorporating" these environments inside the movement. They proved their flexibility during the crisis by playing a key interface role, within regional ecosystems, and across them, mobilising the research and innovation community, developing collaboration, and finding innovative solutions for the SMEs from the bottom-up. This interregional cooperation through clusters is key to optimise limited time to solve problems, especially in times of crisis.

Now, it is time to reinforce European leadership through clusters, which connect actors and implement innovative proposals in order to facilitate the post-COVID economic recovery. Clusters should continue to be strong partners of the Commission to solve European economic challenges in a long-lasting corporation. They should be essential contributors to European alliances and missions relevant for the digital and green economy mobilising their members and engaging in sustainable development. We need to make more use of the collective intelligence of EU clusters to make value/supply chains more resilient, creating synergies and cooperation with SME and employer organisations to anticipate risks and prepare for new opportunities and challenges.



Lesson 2: Dependence on global supply chains and the importance of European SMEs

Europe's welfare and economic competitiveness go hand in hand with its ability to autonomously source and provide crucial raw materials, technologies and services that are clean, safe, and secure for people, industry, and planet. The crisis showed us that we need to relocate industry to Europe, along full value chains. We need to deepen business relations among European companies and partners and to develop an integrated ecosystem for the whole range of materials, metals, and minerals required for the industrial transition, as stated in the European Parliament resolution of 25 Nov 2020 on a New Industrial Strategy for Europe, and by Leonard et al., "The geopolitics of the European Green Deal". Especially the raw materials sector must diversify its suppliers and have a safe minimum critical mass at national or European level.

Furthermore, we should increase our efforts in strengthening the circular and cradle-to-cradle economy, for example through a joint recycling strategy at European level, pursue the reduction of climate impact based on technological proposals, and strongly commit to an accelerated and integrating process of industry 4.0 technologies.

Clusters can help SMEs in these tasks and with their specific needs to become viable and strategic partners of their customers. We should continue to work in cross-sectoral, interdisciplinary, and transnational cluster collaboration to develop new products/services which guarantee EU companies critical inputs and technology, and develop European world-class clusters connecting regional clusters, networks, and ecosystems. This is crucial, especially to prevent and work towards future biohazards scenarios.

Lesson 3: Acceleration of trends and changes in behaviour

The coronavirus crisis has accelerated many trends, especially the digital transition. Changes related to new acquired habits and consumer behaviour require flexibility and adaptability of the manufacturing system in terms of product innovation. We need to support companies in quickly upgrading their business models to following this acceleration.

Furthermore, we not only see an immediate impact on manufacturing and services, but also on the organisation of the companies themselves. It is likely that there will be reductions in business premises/office construction in the future, as remote working increases. Remote working is going to grow and needs to be carefully regulated and designed. From the industry's side, work travels are and will continue to be replaced by remote meetings. Therefore, we need not only a technical upskilling, but a "cultural upskilling", a change in the mindset of companies and skilling in the possibilities of internal organisation. Knowledge sharing needs to be increased, this is especially true and has been seen within the challenge of finding appropriate therapies.

Lesson 4: Bring investments and funds to the ground

Financing the twin transition and investing in new solutions can only be done when all relevant stakeholders are on the same page. We need the banks to be on board to make investments for SMEs possible, as during the crisis, SMEs encountered difficulties in accessing financial support and loans provided by banks. Moreover, the recovery instruments can be a good opportunity to adjust criteria in public procurement to make the financial instruments easier accessible to SMEs. Public funds are essential to support the economic growth of the companies. Possibilities are to extend cascade funding schemes through clusters to make the funds reach the SMEs, and ensure an efficient application of the EU Taxonomy for sustainable activities, adapting it to smaller entities, as suggested by the European Long-Term Investors Association. We need to provide with better and importantly consolidated support for



growing companies, e.g. post start-up stage to ensure their EU grounds. There is a need to implement mechanisms to attract private capital to support this growth of EU companies.

Clusters are in the driving seat to stimulate the interaction of public and private synergies in terms of sustainable co-investment by creating different channels to redirect capital flows towards long-term vision projects which are circular economy oriented. Clusters are committed to provide sustainable advisory services for companies, especially the smallest ones, and fostering capacity building to facilitate a sound application of the EU Taxonomy.

In short, we need to work on the return of investment. How do European companies benefit from the investments undertaken for the green and digital transition and to diversify their value chain? They need a clear vision that their investments are worthwhile and bring them competitive advantages in the future.

Lesson 5: Skills are key

The topic of re- and upskilling has continuously been treated by clusters during the crisis and the necessity to have qualified staff has become clearer than ever. The adaptations to the new realities and the twin transition require companies to make their personnel fit for the future. We cannot react to the changes; we must shape them. We need to commit to a broad-based and inclusive training, share knowledge throughout Europe, and optimise know-how resources. The Pact for Skills is a valuable start, and it needs to be implemented as broadly as possible. We should ensure that training stays on the agenda of the companies – for more than the next two to three years.

Lesson 6: Strengthen social aspects

Industry and society are deeply connected, which is visible especially in times of crisis. This is why our industrial policies need to take societal aspects into account – ethical production, corporate social responsibility, and shared value are not “nice to have”, but need to be further integrated into the core DNA of our industry. We should work together to deepen their implementation into the companies’ actions, and strengthen social economy enterprises and initiatives to play a bigger role in Europe’s economy. There is a need to establish clear guidelines or a framework including dimensions such as inclusion, equality, mental health and wellbeing.

With respect to the green and digital transition, clusters can support the implementation of territorial Just Transition Plans, and can identify and implement shared value initiatives to address societal challenges at the community level.

The COVID-19 crisis has shown that workers across Europe employed in precarious contracts or in non-resilient industrial sectors are at risk of poverty once an economic crisis happens. Additional specific actions must be offered to SMEs and larger enterprises targeting at creating and securing jobs in territorial areas where the economic crisis due to the COVID-19 pandemic had a significant social impact. Revitalising regions through the enhancement of accessible, well paid and secured employments will be a key point for social and industrial prosperity in Europe. Clusters, alongside their networks, will be key stakeholders in supporting the implementation of such industrial policies for the creation of safe employments.

Lesson 7: Functioning public bodies and framework

The European Clusters Alliance supports the statement in the European Parliament resolution of 25 Nov 2020 on a New Industrial Strategy for Europe saying that „public administration should play a key role in ensuring a business-friendly economic environment and reducing the administrative burden on



enterprises while ensuring full application of the Union’s ethical, social, environmental and transparency standards and rules on workers’ safety.” Reducing the bureaucracy for SMEs and making public administrations more digital helps in improving the collaboration in the industrial ecosystems, to which the public bodies belong.

The crisis has shown how important it is to have regional, national, and European policies aligned to be able to react to the challenges and build strategic capacities for the future. We need fair rules on all levels to uphold the global playing field.

The role of public buyers is also important to further develop. In the healthcare sector in particular, Public Procurement of Innovation as well as Pre-Commercial Public Procurement can represent a good way to positively impact both on the public sector (more dynamic, updated and efficient healthcare systems thanks to innovations) and the private side (supporting development and upscaling of new products and acceleration of the go to market process). This needs to be of course regulated but also promoted at EU level.

Similarly, there is the need to reinforce public-private collaborations: we have seen during the pandemic that once the needs of the public sector are clearly expressed and defined, then the industry is able to mobilise resources and respond to the needs. What if this process could be made “institutional” (mainly leveraging the role of clusters) and not exceptional?

The ecosystem and partnership approach to address some of our challenges and build linkages with recovery investments

Increase our cooperation and synergies in Europe

Transforming of our economy into a sustainable and net-zero emissions one means intensifying our cooperation between European partners. All public, private actors and citizens need to act together or in a coordinated manner to share and streamline creativity, knowledge, resources, and agendas. Bringing all relevant players together to map Europe’s strengths and gaps related to strategic values chains of the industrial ecosystems, will allow to identify joint priorities for production investment, mobilise concerned players with appropriate expertise for a sound implementation, accelerate processes and amplify solutions. The inclusion of the research landscape, public bodies, intermediaries, and training providers in this exercise is extremely valuable. Moreover, competing commitments for industry for the transition should be balanced.

Clusters can act as brokers, drivers of change, accelerators, and enablers of the twin transition through mobilising and facilitating cooperation among stakeholders in industrial ecosystems. Through the national associations of clusters, their pan-European networks, and the European Clusters Alliance, they can build a network of networks and facilitate the connections between them. Future Euro-clusters can consolidate this approach and synergies across the ecosystem, as the concept of ecosystems allows to take a deep look at interdependencies and complementarities.

Linking policy levels

The coordination between local, regional, national authorities is essential for a successful implementation of the industrial strategies. The regions are the place where the innovation emerges. Regional actors are connected across the Member States themselves and across Europe. They will be the driver of new

European strategic value chains. Therefore, it is critical to enrich national and European visions with developments at territorial level.

The networking between clusters, clusters networks and other entities as EURADA, the European Association of Development Agencies, or the Council of European BioRegions (CEBR) have proven to be useful in sharing signals from the grounds (European Clusters Alliance as part of the EU Rapid Alert Function), needs, and good practices.

The national network and the European network of clusters are means to diffuse information from regional level to European and vice versa.

Organise this cooperation

We think that the ecosystem approach is strongest when the ecosystems include all actors of the value chain and network and are not dominated by a short number of big companies or entities. Actions and support measures must differentiate between specific needs for different actors and put a strong focus on smaller actors. We proposed a shared leadership to build connections, manage the relations, and cultivate resilience. All related strategies and action plans should be implemented in Multi-Level Governance (MLG), clustering related actors from the different EU industrial ecosystems (see European Parliament resolution of 25 Nov 2020 on a New Industrial Strategy for Europe). To cite EESC's Opinion on EU Industrial Strategy: "Intermediate structures such as SME networks, regional development agencies and clusters must support and reinforce strategic value chains and bring together all dynamic forces to strengthen economic ecosystems."

As stated above, clusters can link between the ecosystem and support the networking among their actors. They can structure the collaboration, as collaboration needs to be organised. The ecosystem approach allows for a flat and flexible hierarchy, but it needs to be managed. Clusters can link vertically and horizontally, build bridges between policy makers and companies, and spread information to help all actors to move in the same direction.

Knowledge transfer and feedback cycle

The ecosystem approach allows to increase the knowledge transfer between the actors that face similar challenges, within the same sector or cross-sectorial. As we can analyse how a disruption in a part of the value chain affects other parts, we should enter a continuous dialogue on sharing experiences, gathering signals from the group, and establish a circle of feedback, reaction, and action – a circle of continuous improvement.

The activities of the European Clusters Alliance as part of the EU Rapid Alert Function give an example of this circle. ECA directly reported disruptions signaled by SMEs in a structured form to DG GROW, European Commission, from May – August 2020. At the same time, policy officers from the European Commission addressed clusters and SMEs directly through the channels of the European Clusters Alliance. ECA is a bi-directional node of communication between industries and policymakers.

To consolidate the feedback cycle and make it credible in the long term, it is also necessary from the policymakers to communicate how the signals from the ground are managed and used to shape our industrial policies, e.g. in terms of regularion, coordination activities, or funding opportunities. This ensures transparency and improves the collaboration if all sides are aware of how the shared knowledge is making an impact.



Match funding with the right players

Viewing public entities as part of the industrial ecosystems allows to improve funding schemes and to make sure that the financial support opportunities reach the right players. Financial support should be available to all actors in the ecosystem – on local, regional, national, and European level. Combining EU, national and regional funds can support the emergence of collaborative projects. Synergies between the various instruments should be reinforced, notably regarding the regional dimension. As mentioned earlier, the public procurement of innovation can also be a key tool to ensure linkage between public buyers, and dynamic SMEs.

Clusters are at the heart of ecosystems and are important organisations providing information about funding opportunities. Awareness about European opportunities is not enough to ensure links with recovery investments, clusters can also support SMEs in project development and then project management.

At the same time, we should work towards lowering bureaucratic obstacles to make financial support more accessible.

Obstacles for building up strategic capacities to successfully master the green and digital transition

Obstacle 1: Financial and human resources of SMEs

The implementation of new green and digital solutions requires high investments from SMEs, both in terms of human and in financial resources. SMEs may lack the manpower and have difficulties in coping with the workload that come with the transition. Hiring dedicated personnell for the digitisation of the company and production/services is a desire, but not easy to implement. The cost is considered to be high, and gaps in salaries for the different fields of work can generate problems for companies. Cost reduction for digitisation is one of the major challenges for many SMEs.

Furthermore, the risk management for the adoption of new solutions can pose a problem for SMEs. With high investments at stake, they need to be sure of the benefits that they gain. In collaboration between a non-digital and a digital solutions provider company, the benefits should be on both sides.

Obstacle 2: Mindset of companies to follow new business opportunities

Following the green and digital transition needs a progressive mindset and full commitment from the companies. Many stakeholders are still very dependent on polluting processes and products and long value chains. Finding local and green alternatives, and opening up traditional business approaches is necessary for this transition – through networking and the help of clusters.

Economic incentives can push new business opportunities. We need to make the business case and justify the investment in green and digital solutions so that all parties benefit from the transition. We can make use of clusters as intermediaries to support the green transition and channel expertise and financing to SMEs for becoming more resource-efficient and carbon neutral.

Additionally, we can work towards increasing the cluster capacity to provide advanced business services shifting from knowledge-based intelligent manufacturing to data-driven/knowledge-enabled smart manufacturing. The critical role of advanced manufacturing technologies should be fully reflected, as rightly observed by ORGALIME.

Obstacle 3: Bringing the right players together

What are the best solutions for the green and digital transition? And to be more resilient? The answer to these questions varies from company to company. Each SME has its own specific needs. Bringing the technology providers and the adopters together is a difficult but important task. There are already a lot of available solutions on the market, but SMEs without a deep technical understanding find it hard to choose. On the other hand, (digital and green) providers should study the concrete needs of the adopters. Clusters can support both sides in understanding each other's needs and offers. Also, they can help them in finding the appropriate vocabulary to improve their communication and speak the same language.

Furthermore, we propose to interact more actively with the SMEs to help them align their value propositions (innovation) with the provisions of the green deal and the recovery plan (green & digital solutions). Clusters can support companies in bridging in making the step from innovation to market deployment.

Obstacle 4: Communication

A broad adoption of green and digital solutions in Europe require a strong communication campaign. Lack of information and awareness is an obstacle that can be easily overcome by strengthening communication activities that focus on the chances and benefits of the green and digital transition, and are transmitted in the language of the SMEs.

One message in particular needs to be stated more clearly: Digitisation can be a tool for the green transition. Making the links between the transitions and not seeing them as separate pillars is crucial to help companies understand their opportunities.

Obstacle 5: Regulation, infrastructure and technology access

There is still a digital divide in Europe between the industrial centres and the periphery. Public investments in infrastructures are necessary to offer equal possibilities to SMEs for the digital transition. Furthermore, a lack of transfer infrastructure can slow down the adoption of new technologies. State-of-the-art pilot infrastructures, demonstrators, and shared facilities with open access to SMEs on European territory can help to accelerate the twin transition and would give SMEs with limited resources the possibility to test solutions and find the best implementation. A mapping of existing facilities is useful, the further expansion, is highly recommended. There is still a high dependence on non-EU technologies.

At the same time, we should set the right regulatory framework for the transition. Further regulations need to be done at European and national levels regarding remote work in order to standardise rules according to companies and workers' needs. Furthermore, the digital transition must respect environmental standards.

Data sharing and transfer is another asset that can be further exploited. As stated by EARTO, the European Association of Research and Technology Organisations, "the EU should favour a bottom-up approach for the establishment of the European Open Science Cloud (EOSC), encouraging the establishment of a technical interface to enable interoperability and data exchange between the existing RD&I data repositories, platforms and storages that are already in use, including national ones." This would allow for more data sovereignty in Europe and support the collaboration among European entities. To continue develop open technology standard, flexibilise licensing and allow the EU industry to develop key technologies, we need a comprehensive intellectual property regime (see European Parliament resolution of 25 Nov 2020 on a New Industrial Strategy for Europe).

Clusters can support boosting digital and advanced technologies value chains and technological platforms through new and reinforced existing Public-Private Partnerships (PPPs).

Obstacle 6: Re- and upskilling

The twin transition requires increasing competences and knowledge – both on the provider’s and on the adopter’s side. We need to train digital companies to speak with the rest of the ecosystems and find the same language, and to skill employers and employees in the digitisation of the processes, products and services. Training centres, universities, and clusters can offer tailor-made trainings for companies to tackle this barrier. We suggest to develop capacity-building programmes to help clusters provide advanced training and sustainable advisory services and convince business about the importance of the green transition, and to strengthen an active role of clusters in local labour markets through building their capacities for reskilling and upskilling and participating in the implementation of the Pact for Skills.

Throughout the Multiannual Financial Framework (2021-2027)
and Next Generation EU (2021-2023),
clusters are a strategic strength and asset for the European institutions
to provide decisive innovative solutions to the societal challenges we face:

changing economies

changing climate

changing attitudes

For a green, digital, and resilient Europe



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