

## **Project idea: Innovative approach to the Clusters in Smart Industry (4.0)**

**Policy objective:** Smarter Europe

**Specific objective:** Research and Innovation capacities, uptake of advanced technologies/ Sustainable growth and competitiveness of SMEs, and job creation in SMEs, including by productive investments/Skills for smart specialisation, industrial transition & entrepreneurship.

### **Issue addressed in the project:**

The COVID-19 crisis, war in Ukraine, geopolitical, economic, and environmental tensions has strongly affected the EU economy but maybe the first and the strongest was the COVID-19 crisis, exposed the interdependence of global value chains and demonstrated the critical role of a globally integrated and well-functioning Single Market and led to shortages of certain critical products in Europe. Statistical data shows that COVID-19 caused 6,3% decline of EU economy, 60% of SMEs reported a fall in turnover in 2020, 24% fall in intra-EU trade in Q2 and Q3 2020, there was around 1,7% SME employment decrease in 2020 which is around 1,4 million jobs and 45% of firms expected reduce investment in 2021. The key issues highlighted by the crisis were:

- Borders restricting free movement of people, goods and services;
- Interrupted global supply chains affecting availability of essential products;
- Disruption of demand.

European Commission laid the foundations for an industrial strategy that would support the twin transition to a green and digital economy, make EU industry more competitive globally, and enhance Europe's open strategic autonomy. European Industrial Strategy is proposing new measures to take into account the lessons learned from the crisis and sustain investment and one of these measures is Accelerating twin transitions. European Industrial Strategy is accelerating the digital and green transition, co-creation of transition pathways for 14 European industrial ecosystems. Transformative innovation processes at territorial level need to be aligned with transitions planned at systems level in Europe. Connecting well territories and their transition strategies to the EU system-level transition pathways is crucial for a coordinated approach in transforming EU's industrial ecosystems towards sustainability. Additionally, territories can integrate the place-based perspective in the transition of European industrial ecosystems and help involve a diversity of players across Europe in the transition of EU systems. This way, territories can be a bridge between European value chains and networking of local decision-makers in their territory. Clusters can be a good bridge and tools for such connections. Clusters have been increasingly acknowledged as pivotal for the recovery because they are a tool to support industrial innovation, internationalisation, and supply chain resilience. As highlighted in the Commission Communication an "SME Strategy for sustainable and digital Europe", strategic dependencies can have a particular impact on SMEs, and clusters can offer their members a way to address disruptions and by connecting them to other local and cross-border partners. Indeed, there is evidence of considerable value in clusters: in Europe there are currently 2950 clusters, accounting for 61.8 million jobs. Moreover, the productivity of companies that are part of clusters is 25% higher than average

productivity regarding the European Cluster Panorama report). At the same time, a large majority of these clusters are small and under-resourced which, in turn, limits their impact.

**Project's overall objective:** By boosting the innovative approach to the clusters in the Smart industry (4.0) project will contribute to the transition pathway of the DIGITAL industrial ecosystems which connects academia/research, civil society and policymakers to design, implement, assess and share knowledge, and ultimately scale up the on-field experiments.

**Innovative approach to clusters in SMART INDUSTRY (4.0) will be achieved through:**

- improving the policy framework of clusters in SMART INDUSTRY (4.0) as a tool for the transition pathways on a national/regional/local level;
- facilitating the 'entrepreneurial discovery process' that the smart specialisation framework envisages, in order that SMART INDUSTRY (4.0) can explore, experiment with and discover new opportunities, and that the region overall can subsequently become a 'fast follower' of the market signals generated by this process, thus accelerating the industrial transformation;
- development of competitive advantage in clusters by improving links between research, academia and business (triple helix model);
- promoting innovation, knowledge sharing, and cooperation among businesses in the sector, with the ultimate goal of driving economic growth and competitiveness, as well as strengthening the position of industrial clusters internationally and including them in global value chains.

**Project approach:**

Challenges in a terms of clusters business models "which floated to the surface" by the COVID-19 pandemic are:

- 1.) Recovery, resilience and growth;
- 2.) Cluster-internal development;
- 3.) Financing and resources;
- 4.) Sustainability, green and circular economy;
- 5.) Digitalisation;
- 6.) (Cluster) Policy;
- 7.) Cooperation and internationalisation;

**Main needs of the clusters to reach the twin transition in industrial ecosystems:**

- 1.) Improving the business models;
- 2.) Developing new services;
- 3.) Managing stakeholders and ecosystems;
- 4.) Internationalization of the cluster;
- 5.) Learning about successful collaboration;

- 6.) Understanding clusters as tools of change;
- 7.) Improving the internal management;
- 8.) Branding and management.

**To enable clusters to play a role in fostering the twin transitions through following key areas:**

- **Financial sustainability:** improving their short- and long-term funding structure to enable them to focus on their mission;
- **Resources and services:** supporting clusters in tailoring and aligning their services to the overall regional, national and European objectives / needs in view of the twin transitions;
- **Skills:** training cluster managers to improve their managerial / entrepreneurial skills to deliver a transition management approach;
- **Inter-cluster linkages and investment:** supporting cluster to link their vision to the wider regional value chains, within and across geographies.
- **Mission orientation of clusters:** developing a good understanding of the value added of cluster organizations as place-based vehicles of systemic change toward the twin transitions;
- **Evaluation:** demonstrating the impact that clusters have on systemic transitions over time, and how this benefits members.

**METHODOLOGICAL APPROACH will include:**

- Cluster mapping of SMART INDUSTRY (4.0) - by mapping the SMART INDUSTRY (4.0) and the clusters in SMART INDUSTRY we will get information about the regional context of competitiveness landscape of a region and the presence of related clusters and related industries;
- Stakeholders' involvement in the project;
- Interregional event (Peer Review Event);
- Interregional workshops and study visits.

**Semester 1**

**1.) Exchange of the experience:**

**Set the work structure of the project**

- Cluster Mapping: main challenges, research, analysis and policy context of the SMART INDUSTRY (4.) to provide a state of the state of art of the situation in region
- Analysing the existing Smart industry clusters in partnership countries/Europe and their focus areas, activities, membership, skills and main challenges;
- Development of a set of criteria for evaluating the effectiveness of Smart industry clusters in partnership countries/Europe (just an idea - not sure if it is relevant);
- Formalising the stakeholder groups on a local/regional level
- 1<sup>st</sup> regional stakeholder groups meeting

- Project kick-off meeting in Lithuania

## **2.) Communication and dissemination:**

### **Activities:**

Region of Thessaly (Greece) will be in charge for communication:

- Development of Communication plan
- Development and communication of branding guidelines
- Logo/acronym of the project
- Updated website
- A3 project poster
- Press release number 1
- Newsletter number 1
- Video 1 will be developed

## **3.) Management:**

- Ongoing management activities to ensure smooth implementation and reporting the project

## **4.) Pilot action:**

Proposal for pilot action from Hungarian partner: A joint pilot action could be a development of an application supporting the digital transformation of the SME's and clusters, that could later be financed from the corresponding OP's in order to strengthen the local economies, the digital transformation and the development of the regions. (we need to discuss it on the meeting).

## **Semester 2**

### **1.) Exchange of the experience:**

**Topic of the semester 2: Analyse of short and long-term funding structures of cluster in SMART INDUSTRY (4.0.) tailoring and aligning their services to regional, national and European objectives to enable the twin transition**

### **Activities:**

- 1<sup>st</sup> interregional event (Peer Review Event) and study visit hosted by Business Development agency of Region of Murcia – Spain, **Thematic focus on the 1<sup>st</sup> event: Funding and cost structure of a clusters and value proposition of a cluster in regional/global value chains regarding the results from the mapping in 1<sup>st</sup> semester**
- 1<sup>st</sup> interregional workshop and study visit hosted by Regional management NordHessen GmbH-Germany, **Thematic focus on 1<sup>st</sup> interregional workshop: Clusters in Smart industry (4.0) as a tool for Open Discovery process and co-creation of Smart specialisation strategies;**
- 2<sup>nd</sup> regional stakeholder groups meeting;
- A report on good practices/development developed by each event;
- Organization of 1<sup>st</sup> Steering committee.

## **2.) Communication and dissemination:**

### **Activities:**

- Region of Thessaly (Greece) will support with the report the 1<sup>st</sup> interregional event and peer review and visualise their relation to the topic context
- Support the partners with the visualisation of the 1<sup>st</sup> interregional workshop
- Press release no.1
- Newsletter no. 2
- Website updating
- Social media content creation and dissemination
- VIDEO no1 will be published

### **3.) Management:**

- Ongoing management activities to ensure smooth implementation and reporting the project

### **4.) Pilot action:** we need to discuss it

## **Semester 3**

### **Exchange of the experience:**

#### **1.) Topic of the semester 3: Smart skills for SMART INDUSTRY (4.0) in clusters in framework of transition pathway**

- 2<sup>st</sup> interregional event (Peer Review Event) and study visit hosted by the WSX-Ireland, **Thematic focus on the 2<sup>st</sup> event: Tailor responses to skills shortages and skills mismatches in SMART INDUSTRY (4.0) clusters** – (Industrial clusters are an ideal focus for the collaborative dynamics essential to address regional skills shortages and mismatches. As key activity-specific intermediaries within their regional industrial ecosystems, cluster organisations can help to match the supply and demand of cluster specific skills, a role that is particularly important in times of heightened uncertainty. Most critically, they can link solutions to skills imbalances with other key and related dimensions around which they are working collaboratively with cluster members, such as knowledge exchange, technology development, the transition of industrial processes and new business models. By bringing together the triple helix of firms, education/research and government in an activity-specific and place-specific context, they can provide critical mass and brokerage to effectively address regional skills imbalances).
- 2<sup>st</sup> interregional workshop and study visit hosted by Region of Thessaly, **Thematic focus on 2<sup>st</sup> interregional workshop: Policy measures to better leverage the roles that industrial clusters and their organisations can play in addressing regional skills imbalances.**
- 3<sup>nd</sup> regional stakeholder groups meeting;

- A report on good practices/development developed by each event;
- Organization of 2<sup>st</sup> Steering committee.

## **2.) Communication and dissemination:**

- Region of Thessaly (Greece) will support with the report the 2<sup>st</sup> interregional event and peer review and visualise their relation to the topic context
- Support the partners with the visualisation of the 2<sup>st</sup> interregional workshop
- Press release no.3
- Newsletter no. 3
- Website updating
- Social media content creation and dissemination

## **3.) Management:**

- Ongoing management activities to ensure smooth implementation and reporting the project

## **4.) Pilot action:** we need to discuss it

## **Semester 4:**

### **1.) Exchange of the experience:**

**Topic of the semester 4: Cluster linkages between industrial ecosystems/value chains and developing a good understanding of the value added of cluster organisations as place based vehicles of systemic change toward the twin transitions**

- 3<sup>rd</sup> interregional event (Peer Review Event) and study trip hosted by the PORA Regional development agency of Koprivnica Križevci County, **Thematic focus on the 3<sup>rd</sup> event: Mobilising clusters as a focal point for bringing together firms to strengthen regional and inter-regional value chains and initiating cross-sectoral, interdisciplinary and transnational cluster collaboration.**
- 3<sup>rd</sup> interregional workshop and study trip hosted by Pannon EGTC, Hungary - **Thematic focus on 3<sup>rd</sup> international workshop: Identifying the value added (mission) of clusters in SMART INDUSTRY (4.0) and link it to challenges face by DIGITAL ecosystem.**

### **2.) Communication and dissemination:**

- Region of Thessaly (Greece) will support with the report the 3<sup>rd</sup> interregional event and peer review and visualise their relation to the topic context
- Support the partners with the visualisation of the 3<sup>rd</sup> interregional workshop
- Press release no.4
- Newsletter no. 4
- Website updating
- Social media content creation and dissemination

### **3.) Management:**

- Ongoing management activities to ensure smooth implementation and reporting the project

**4.) Pilot action:** we need to discuss it

### **Semester 5:**

#### **1.) Exchange of the experience:**

TOPIC: CARRY OUT THE LESSONS LEARNT FROM THE PREVIOUS SEMESTERS

- 5<sup>th</sup> stakeholder meeting
- Organization of capacity building webinar on topic of the internationalisation and value-chain linkages of by\_\_\_\_\_clusters in SMART INDUSTRY 4.0 (it will be included project partners, policy makers and stakeholders)
- Organization a 1<sup>st</sup> interregional online B2B matchmaking event in the area of SMART INDUSTRY (4.0) clusters
- Organization of 4<sup>th</sup> Steering comitee

#### **2.) Communication and dissemination:**

- Development of VIDEO nr.2
- Press release 5
- Newsletter nr.5
- Website updating
- Social media

### **3.) Management:**

- Ongoing management activities to ensure smooth implementation and reporting the project

**4.) Pilot action:** we need to discuss it

### **Semestar 6:**

#### **1.) Exchange of experience:**

- 6<sup>th</sup> stakeholder meeting
- Organization of capacity building webinar on the topic of Cluster programmes which supports the Clusters In SMART INDUSTRY (4.0) and their sustainability by\_\_\_\_\_
- Organization a 2<sup>st</sup> interregional online B2B matchmaking event in the area of SMART INDUSTRY (4.0) clusters
- Organization of 5<sup>th</sup> Steering comitee

#### **2.) Communcation and dissemination:**

- Development of VIDEO nr.2
- Press release 5

- Newsletter nr.5
- Website updating
- Social media

### **3.) Management:**

- Ongoing management activities to ensure smooth implementation and reporting the project

### **4.) Pilot action:**

- we need to discuss it

## **Semester 7:**

### **1.) Exchange of the experience:**

- Monitoring of the territorial impact of policy improvements and Action Plans;
- 7<sup>th</sup> regional stakeholders meeting
- 6<sup>th</sup> Steering committee;

### **2.) Communication and dissemination:**

- press release
- Social media

### **3.) Management:**

- Ongoing management activities to ensure smooth implementation and reporting the project

### **4.) Pilot action:**

- we need to discuss it

## **Semester 8:**

### **1.) Exchange of the experience:**

- Evaluation and monitoring results of the project
- Final conference and dissemination event
- 8<sup>th</sup> stakeholders meeting
- 7<sup>th</sup> Steering comitee

### **2.) Communication and dissemination:**

- Final press release
- Social media
- Published VIDEO nr. 2



- Summary of project highlights

### **3.) Management:**

- Ongoing management activities to ensure smooth implementation and reporting the project

### **4.) Pilot action:**

- we need to discuss it