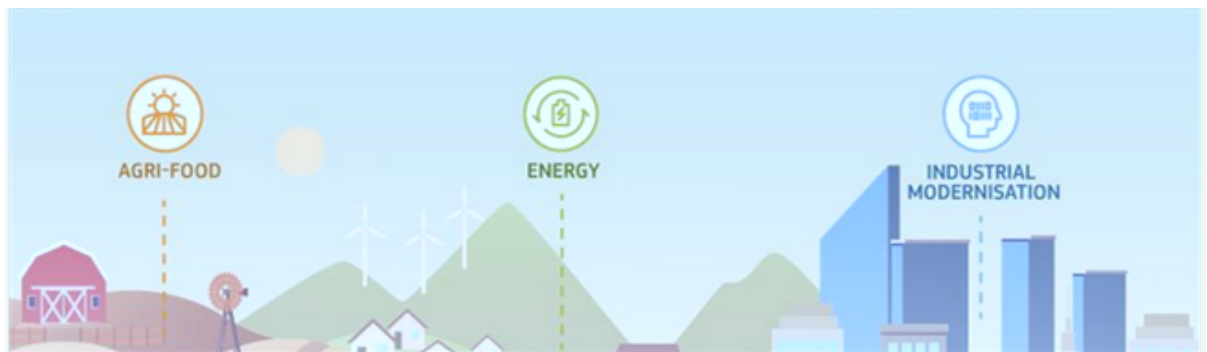


# Thematic Smart Specialisation Platforms Monitoring Progress Report

Fields marked with \* are mandatory.



## Thematic Smart Specialisation Partnership Monitoring Progress Report

This report is presented to the relevant Working/Steering Committee.

The report is updated every six months.

### Confidentiality:

The management report (section I) and progress report (section II) will be made available to the public via your Partnership's web page.

The part on self-assessment is confidential.

Based on the monitoring results, the European Commission will decide on the following term's support.

### \* Reporting period

July - December 2020

### \* Please select the name of your partnership

Efficient and Sustainable Manufacturing

**\* Start date of your partnership**

2016

**\* Partnership's webpage**<https://s3platform.jrc.ec.europa.eu/efficient-and-sustainable-manufacturing>

## I. Management report

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**\* Please provide the executive summary and the objectives of your partnership**

The partnership on Efficient and Sustainable Manufacturing was born in the framework of the Vanguard Initiative, promoted by Lombardy and Catalonia. Its focus is on technologies, methods and tools aimed at:

- Increasing throughput, quality, environmental and social sustainability of manufacturing activities while reducing costs;
- Reducing energy, emissions, resources and materials consumption,
- Increasing the inclusion of humans in the factories Vision: Manufacturing should become efficient and sustainable to enable European reindustrialization and to preserve environment and planet's resources.

Manufacturing efficiency and sustainability are two challenges to be addressed in a synergic way and systemic view.

The idea is to conceive and develop a European network of infrastructures and pilot plants in key manufacturing

areas, where companies can test innovative solutions before the industrial uptake. By exploiting and valorizing available research results, ESM European pilot plants have the potential to support companies' innovation in breakthrough technologies and applications that require manufacturing efficiency and sustainability.

This approach will increase the competitiveness and the development of European value chains, exploiting synergies and complementarities of different regional specialization.

The ESM partnership is also aimed at overcoming the barriers limiting innovation and the transfer of research results to industry in Europe, through the development of an European synergic network of pilot plants accessible to companies in a logic of Smart Specialization. Each Region will develop and operate pilot plant nodes coherent to regional industry and competences, offering to European companies a "one stop shop" for the industrial uptake of new technologies and innovative business model.

**\* Please provide the list of leading regions**

Lombardy (AFIL)  
Catalonia (EURECAT)  
Auvergne Rhone Alpes (PLASTIPOLIS)

**\* Please provide the list of participating regions.**

*If possible, please follow this format: "Name of the region in English (Country abbreviation), NUTS code".  
e.g.: Lapland (FI), FI1D7*

Lombardy - IT  
Catalonia - ES  
Auvergne Rhone Alpes - FR  
Baden Wurttemberg - DE  
Basque Country - ES  
East Netherlands - NL  
East and North Finland - FI  
Emilia Romagna - IT  
Flanders - BE  
Friuli Venezia Giulia - IT  
Lower Saxony - DE  
Navarra - ES  
Norte - ES  
Pays de la Loire - FR  
Saxony -DE  
Saxony Anhalt - DE  
Scotland - UK  
Slovenia - SI  
South Netherlands - NL  
Tampere -. FI  
Upper Austria - AT  
Wales - UK  
Wallonia - BE

**Please provide the list of interested regions or other entities** (other than national /regional authorities)

Galicia -ES  
Malopolska - PL

Please provide an overview of the **working areas** of your partnership

	Working area	Region in charge	Involved regions	Other actors
*1	De- and Remanufacturing	Lombardy	<p>Lombardy Scotland Saxony Tampere Flanders Basque Country Norte Emilia Romagna Wallonia Eastern Netherlands</p> <p>Interested Regions: Catalonia; South Netherlands; Pays de la Loire, Friuli Venezia Giulia</p>	<p>AFIL - Italy, Lombardy, Milan Politecnico di Milano - Italy, Lombardy, Milan EURECAT - Spain, Catalonia, Barcelona TUT - Finland, Tampere, Tampere INESC - Portugal, Norte, Porto PRODUTECH - Portugal, Norte, Porto Scottish Institute for Remanufacture - England, Scotland Fraunhofer IWU - Germany, Saxony, Chemnitz TECNALIA - Spain, Basque Country</p>
*2	Polymer Based Functional Products	Catalonia - Auvergne Rhone Alpes	<p>Lombardy Navarra East Netherlands In talks with other potential participants: Baden Wurttemberg Norte Pays de la Loire Slovenia</p>	<p>EURECAT - Catalonia, Spain PLASTIPOLIS-Auvergne Rhone Alpes, France- Politecnico di Milano, Lombardy, Italy AIN - Navarra, Spain</p>

*3	Digital Transformation	Lombardy - South Netherlands - Tampere	<p>Auvergne Rhone Alpes Baden-Wurttemberg Catalonia Emilia Romagna East Netherlands Friuli Venezia Giulia Norte Saxony Basque Country Flanders Slovenia</p> <p>In talks with Malopolska Galicia Upper Austria Pays de la Loire Wales East and North Finland</p>	<p>AFIL, Lombardy, Italy Politecnico di Milano, Lombardy, Italy STIIMA-CNR, Lombardy, Italy Plastipolis, Auvergne Rhone Alpes EURECAT, Catalonia, Spain Brainport Development, South Netherlands Brainport Industries, South Netherlands TUT, Tampere, Finland INESC, Norte, Portugal PRODUTECH, Norte, Portugal TECNALIA, Basque Country, Spain INESCTEC, Basque Country, Spain AIN, Navarra, Spain University of Modena and Reggio, Emilia Romagna, Italy AR-TER, Emilia Romagna, Italy COMET, Friuli Venezia Giulia, Italy University of Maribor, Slovenia</p>
*4	Energy-flexible and resourceefficient factory operation (EFREFO)	Norte	Saxony - Basque Country - Lombardy- Navarra - Baden Wurttemberg - Pays de la Loire	Saxony Energy, Saxony, Germany Fraunhofer IWU, Saxony, Germany STIIMA-CNR, Lombardy, Italy INEGI, Norte, Portugal
*5	-	-	-	-
*6	-	-	-	-
*7	-	-	-	-

*8	-	-	-	-
*9	-	-	-	-
*10	-	-	-	-

Please provide information regarding past meetings, workshops and dissemination activities (six months prior to filling out the survey)

	Event	Date	Place	Any other information
1	De-and remanufacturing meeting	24/07/2020	Virtual	Private
2	ESM Steering Committee	14/10/2020	Virtual	Private
3	De-and remanufacturing meeting	23/10/2020	Virtual	Private
4	De-and remanufacturing meeting	06/11/2020	Virtual	Private
5	ESM-SC Meeting	14/12/2020	Virtual	Private
6	ESM Plenary meeting	16/12/2020	Virtual	Public
7				
8				
9				
10				

Please provide information regarding planned future meetings, workshops and dissemination activities

	Event	Date	Place	Any other information
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				



## II. Progress report

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### Innovative results

Please describe innovative results and achievements that could be attributed to the partnership (specific examples of results vs. objectives)

The second semester of 2020 was also influenced by the COVID-19 pandemic, but similarly to the previous period, activities continued in a remote way ensuring the achievements of the objectives and targets set for the year, although some minor modifications were implemented, as shown in detail in Section C of this document.

Summarising, the ESM Pilot achievements to be reported can be outlined as follow:

1. Confirmation of pilot and demo-cases governance
2. Orchestration of the interaction among Vanguard and DGRTD to establish a collaboration with Made in Europe partnership
3. Interaction among ESM and SPIRE to establish a collaboration between Vanguard and "Process4Planet" partnership, in alignment with the approach implemented with MiE
4. Approval of AIREGIO proposal (H2020 DT-ICT-03-2020) submitted by Digital Transformation demo-case
5. Submission of two proposals under INNOSUP-01 call, one targeting the topic of circular economy and the other focussed on smart plastics
6. Finalisation of a new business plan for De-and Remanufacturing thanks to the support of DGREGIO Pilot Action and TAF Service
7. Preparation of a proposal under GREEN DEAL call (LC-GD-3-2-2020) by De-and Remanufacturing demo-case
8. Organisation of Digital Transformation workshop to boost the identification of use-cases
9. Dissemination of ESM pilot through EU Cluster Alliance initiative focused on actions to face COVID-19 emergencies thanks to the support of existing EU networks.
10. Interactions with North and East Finland and Lower Saxony interested in joining ESM Pilot
11. Establishment of a dialogue between Digital Transformation demo-case and AI&HMI partnership to rationalise the participation to S3Platform and launch a new Pilot Initiative on AI
12. Consolidation of the collaboration within "Advanced materials for batteries" partnership to build the basis for a new demo-case action in ESM Pilot
13. Preliminary interaction with "Wireless ICT" partnership launched in the framework of S3Platform. Lombardy, Catalonia and Noord Brabant are formally involved.
14. Initialisation of ESM Pilot Roadmap that will be finalised in the beginning of 2021

Tangible short- and medium-term socio-economic impacts achieved or expected (specific examples)

## Inter-regional and inter-partnership collaborative results

Additional results obtained from working with other partnerships under the thematic S3 Platforms (specific examples)

As already reported in previous periods, a fruitful and solid collaboration has been established among ESM and "Advanced material for batteries" partnerships since one of the use-cases developed within "De and Remanufacturing" demo-case is addressing the remanufacturing of E-mobility batteries for reuse. Considering the synergies between Digital Transformation demo-case and AI&HMI partnerships, some interactions are ongoing to capitalize cooperation in these frameworks.

Evaluation of the involvement of relevant business sector (clusters, SMEs, business associations, chambers of commerce, Digital Innovation Hubs (DIHs), etcetera) in the Partnership activities (specific examples)

ESM partnership has been established in 2013 based on the Vanguard Initiative methodology. Accordingly, besides the commitment and involvement of regional authorities, several business stakeholders are actively contributing to the development of demo-cases. In particular, in several regions clusters are the organisation in charge of leading the activities within ESM ensuring the involvement of a number of local business stakeholders, in particular companies. In addition also research centers, universities and business associations are playing a strategic role in the partnership development. Some connections have been established also with the regional organisations recognised as DIHs, in particular considering the demo-case "Digital Transformation". ESM partnership is monitoring the activities ongoing in the different regions in view of the upcoming EDIH call.

Evaluation of whether the level of inter-regional cooperation is sufficient to potentially provide practical and relevant socio-economic impacts (specific examples)

The ESM pilot established a cooperation among more than 20 EU Regions and it is expanding its network toward new less developed regions leveraging on synergic opportunities generated for example by INTERREG projects. Thanks to this cooperation we are establishing regional working groups focused on specific topics able to gather regional stakeholders and connect them at interregional level facilitating the creation of innovation pilot plant projects.

## New activities

Involvement of regions from EU13 Member States in the Partnership, in particular with respect to scoping, mapping and/or matchmaking. In addition, justification should be provided if no EU13 regions are involved

As mentioned above ESM partnerships, thanks to the participation in several INTERREG funded projects was able to expand its outreach toward EU13 regions (i.e. Poland, Slovenia, Hungary, Croatia). With respect to the previous report no relevant improvement were made due to the consequences of the pandemic, but new activities will be started focusing both on the topics already developed within the pilot and on new potential topics of interests for these regions (i.e. Food manufacturing, textile...)

Involvement of regions/countries from outside of EU28 Countries. (Number of participants from non-EU countries (specify their contribution))

No non-EU countries involved.

Advancement and promotion of the Partnership through publications and other communication/outreach activities (number of outreach activities that resulted from the partnership)

Similarly to what happened in the first semester of 2020, the COVID-19 pandemic has strongly affected the communication activities of the partnership which were mainly focused on the organisation of workshop and events. Nevertheless, the partnership has organised its annual event in December 2020 in virtual setting, gathering more than 60 people from 25 EU Regions.  
Besides this, ESM Partnership provided continuous update on its progresses through the Vanguard Network newsletter.

Activities and projects with partnerships working under other S3 Thematic Platforms (AgriFood, Energy and Industrial Modernisation)

Thanks to the interactions ongoing with AI & HMI partnership, we collaborated for the submission of a new Pilot under the Vanguard initiative, that will be focusing on Artificial Intelligence.  
Interactions are ongoing also with the partnership "Advanced Materials for batteries", where we are evaluating of designing a new demo-case under ESM partnership.  
Moreover, recently some of the Regions involved in ESM has expressed their interest and joined Wireless ICT partnership with the aim to monitor project ideas in the area of advanced manufacturing

## Your Partnership and the UN 2030 Sustainable Development Goals (SDGs)

The EU has a strong position when it comes to sustainable development and is also fully committed to be a frontrunner in implementing the UN's 2030 Agenda, together with its member countries and regions. Many interregional partnerships under the thematic S3 Platforms contribute strongly to the attainment of these 17 goals.

**Please indicate to which Sustainable Development Goals and to what extent your thematic Partnership contributes?**

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Not applicable
Goal 1. End poverty in all its forms everywhere	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Goal 2. End hunger, achieve food security and improved nutrition & promote sustainable agriculture	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Goal 3. Ensure healthy lives & promote well-being for all at all ages	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Goal 5. Achieve gender equality & empower all women and girls	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Goal 6. Ensure availability and sustainable management of water and sanitation for all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment & decent work for all	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialisation & foster innovation	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Goal 10. Reduce inequality within and among countries	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Goal 11. Make cities & human settlements inclusive, safe, resilient and sustainable	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Goal 12. Ensure sustainable consumption & production patterns	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Goal 13. Take urgent action to combat climate change and its impacts	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Goal 14. Conserve and sustainably use the oceans, seas & marine resources for sustainable development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Goal 15. Protect, restore and promote sustainable use of							

terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Goal 16. Promote peaceful & inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Goal 17. Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

