

# Smart Specialisation Platform for Industrial Modernisation

## Thematic S3 Partnership

### ARTIFICIAL INTELLIGENCE & HUMAN-MACHINE INTERFACE

Start Date (June 2018)

## MONITORING PROGRESS REPORT

***Reporting Period: from January 2019 to June 2019***

This Report is presented to the relevant Working/Steering Committee.  
It contains three parts:

- I. Management Report prepared by the Lead Region(s)***
- II. Progress Report prepared by the Lead Region(s)***

The report is updated every six months.

Confidentiality: this document (part I) will be made available to the public via your Partnership's web page except for chapter *II.E. Self evaluation*.

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

**Executive summary (max. 250 words):**

*In December 2019 the Steering Table of the Partnership was appointed, and an Action Plan for the Partnership was approved.*

*During the first semester of 2019 the following actions were carried out:*

- Regional working groups meetings in all the partner Regions in February*
- Continuous collection of Discussion Topics coming from the regional working groups, with a special interest for Discussion Topics coming from companies and SMEs*
- Second Steering Table meeting in Stuttgart, February 27th*
- Definition and approval by the Steering Table of a detailed action plan timing and roles for regional working groups, Steering Table, Technical and Scientific Committee*
- Collection of two technical and scientific experts per Region to be appointed for the Technical and Scientific Committee*
- Appointment of the Technical and Scientific Committee of the Partnership, and first call-conference in May, the 8th: approval of the strategy and workflow of the Technical and Scientific Committee*
- Creation of Sub-groups in the Technical and Scientific Committee to work on 4 main focus areas: User experience data analytics, HMI evolution, AI-enhanced Cyber Physical Automation, User-centered Design*
- Definition of the most relevant aspects to be included in the mapping exercise to be performed by ReConfirm: ReConfirm participated to the second Steering Table meeting, collecting requests and needs from the Table; next, some conf-calls were performed between the lead Region and ReConfirm, in order to define the operative process to realize the mapping*
- Submission of an INNOSUP project proposal participated by all the partner Regions and led by AIN, Industrial Association of Navarra, representative of the Navarra Region for AI&HMI partnership.*

**I. Management Report prepared by the Thematic Platform/Lead Region(s)**

**I.A. Partnership Action Fact Sheet**

- **Partnership:** *Artificial Intelligence & Human-Machine Interface*
- **Partnership's web-page:** *http://s3platform.jrc.ec.europa.eu/artificial-intelligence*
- **S3 Thematic Platform:** *Industrial Modernisation*
- **Objectives:** *The partnership supports the adoption of Artificial Intelligence enhanced cyber-physical system, and more specifically AI driven HMI, exploiting the knowledge, competencies and capacities of the stakeholders of participating regions so to accelerate the innovation processes of companies, including SMEs. More precisely, interregional collaboration among regional stakeholders will be addressed to:*
  - **1. ENHANCE AND ACCELERATE THE LEVEL OF AUTOMATION SYSTEMS PRODUCTION AND USE**
    - *- defending today's competitive advantage within automation and robotics Value Chains;*
    - *- making the European value chains robust and integrated as an evolution of today's supply chain;*
    - *- fostering new joint projects pipelines in several deployment areas l.*
  - **2. INTRODUCE THE AI CONCEPT, DESIGN AND INDUSTRIALIZATION METHODOLOGIES**
    - *- promoting cross fertilization with other sectors with similarity in terms of I4.0 KETs;*
    - *- creating enlarged and multicultural design teams (technical and human-centric disciplines);*
    - *- creating new companies or new networks of companies, mainly SMEs organized into open design communities.*
  - **3. INCREASE THE LEVEL OF EDUCATIONAL SYSTEMS OF BOTH PRODUCERS AND USERS**
    - *- working on education districts and industrial district integration;*
    - *- involvement education and industry foundations/organisations.*
- **Lead Region(s):** *list of regions/countries leading this partnership*

<i>Emilia-Romagna (IT)</i>
<i>Slovenija (SI) (from May 21<sup>st</sup>)</i>

- **Official partner regions:** *list of regions/countries that have officially committed to follow this partnership and have been active in the last six months.*

<i>Emilia-Romagna (IT)</i>	<i>Salzburg (AT)</i>	
<i>Slovenija (SI)</i>	<i>Hungary (HU)</i>	
<i>Autonomous Province of Trento (IT)</i>	<i>Provence-Alpes-Cote d'Azur (FR)</i>	
<i>Baden-Württemberg (DE)</i>	<i>Örebro län (SE)</i>	
<i>Navarra (ES)</i>		
<i>Nord Brabant (NL)</i>		

- **Other regions:** *list of regions/countries that have expressed their interest in this partnership but have not signed a commitment letter).*

<i>Please enter here...</i>	<i>Please enter here...</i>	<i>Please enter here...</i>
<i>Please enter here...</i>	<i>Please enter here...</i>	<i>Please enter here...</i>

Please enter here...	Please enter here...	Please enter here...
Please enter here...	Please enter here...	Please enter here...
Please enter here...	Please enter here...	Please enter here...
Please enter here...	Please enter here...	Please enter here...
Any other comments		

- **Intentions to join:** list any regional/national authorities  
(Please list here all other regions that have expressed their interest to join the partnership)

- **Other participants (other than national/regional authorities):**  
(Please list here all other (non-region) participants (clusters, institutes, RTOs, etc.))

Please enter here...	Please enter here...	Please enter here...
Please enter here...	Please enter here...	Please enter here...
Please enter here...	Please enter here...	Please enter here...
Please enter here...	Please enter here...	Please enter here...
Any other comments		

<p><b>Representative of Lead Region 1:</b> (name, institution, address, phone, e-mail) ART-ER S. Cons. p. A. Francesco Paolo Ausiello via Gobetti 101, 40129 Bologna, Italy +39 051 6398099 francescopaolo.ausiello@art-er.it</p>	<p><b>Representative of Lead Region 2</b> (if applicable): (name, institution, address, phone, e-mail) SRIP Factories of the Future - Jožef Stefan Institute Rudi Panjtar Teslova ulica 30, SI-1000 Ljubljana, Slovenija +386 (0)1 477 31 98 rudi.panjtar@ijs.si</p>
<p><b>European Commission Coordinator:</b> (name, e-mail) Please enter here...</p>	<p>Any other relevant information: Please enter here...</p>

**I.B. Thematic Working Areas (WA)**

- **Thematic Working Areas** (if any, please list of WAs, region(s) in charge of it, names and affiliations of involved regional/national authorities, and other actors)

Working Area	Region in Charge	Involved regions	Other actors
USER experience data analytics: physiological and biomechanical data analysis to improve the workers experience and performance	The setup of inter-regional task-groups is ongoing	Other involved regions	Other actors
USER centered Design: Machine / System user-centered design to leverage the operators' skills that includes.	The setup of inter-regional task-groups is ongoing	Other involved regions	Other actors

<i>AI enhanced Cyber-Physical Automation</i>	<i>The setup of inter-regional task-groups is ongoing</i>	<i>Other involved regions</i>	<i>Other actors</i>
<i>HMI evolution including new interface local and remote devices and technologies</i>	<i>The setup of inter-regional task-groups is ongoing</i>	<i>Other involved regions</i>	<i>Other actors</i>
<i>Any other comments</i>			

**I.C. Overview of past activities (past six months, the 1<sup>st</sup> half of 2019)**

**Past Meetings**

<i>Title</i>	<i>Date</i>	<i>Place</i>
<i>Regional local Working groups meet and work on Discussion Topics</i>	<i>January-February</i>	<i>Locally in each Region</i>
<i>First Steering Table Meeting</i>	<i>February 27th</i>	<i>Stuttgart (DE)</i>
<i>Technical and Scientific Committee first call-conference</i>	<i>May, 8th</i>	<i>Call-Conference</i>
<i>Second Steering Table Meeting, May 21<sup>st</sup>, Lubiana (SI)</i>		

**Past Workshops**

<i>Title</i>	<i>Date</i>	<i>Place</i>
<i>Please enter title here...</i>	<i>Please enter date here...</i>	<i>Please enter place here...</i>
<i>Please enter title here...</i>	<i>Please enter date here...</i>	<i>Please enter place here...</i>
<i>Any other comments</i>		

**Past Dissemination Activities**

<i>Title</i>	<i>Date</i>	<i>Place</i>
<i>ITAL-IA - Artificial Intelligence in italy General Conference</i>	<i>March, 18-19</i>	<i>Rome</i>
<i>5<sup>th</sup> Industrial Modernisation Steering Committee</i>	<i>June 13-14</i>	<i>Warsaw</i>
<i>Any other comments</i>		

**I.C. Overview of future activities (the next 6 months – the 2<sup>nd</sup> half of 2019)****Future Meetings**

<i>Title</i>	<i>Date</i>	<i>Place</i>
<i>First F2F Technical and Scientific Committee Meeting</i>	<i>July, TBD</i>	<i>Bologna (IT)</i>
<i>Third Steering Table meeting</i>	<i>September, TBD</i>	<i>Brussels</i>
<i>Meeting of the Technical and Scientific Committee sub-groups</i>	<i>June-July</i>	<i>Call-Conference or by presence</i>
<i>Any other comments</i>		

**Future Workshops**

<i>Title</i>	<i>Date</i>	<i>Place</i>
<i>Please enter title here...</i>	<i>Please enter date here...</i>	<i>Please enter place here...</i>
<i>Please enter title here...</i>	<i>Please enter date here...</i>	<i>Please enter place here...</i>
<i>Any other comments</i>		

**Future Dissemination Activities**

<i>Title</i>	<i>Date</i>	<i>Place</i>
<i>General Assembly of the Artificial Intelligence Italia Association</i>	<i>November</i>	<i>Calabria Region, Italy</i>
<i>Please enter title here...</i>	<i>Please enter date here...</i>	<i>Please enter place here...</i>
<i>Any other comments</i>		

**II. Progress Report** prepared by the Lead Region(s) of the partnership, describing **results achieved during this period**, in no more than 3 pages (the report is “cumulative”). All items listed in Sections A, B, and C, below, must be addressed.

Additional documentation such as extended technical reports and/or proceedings of workshops may be provided separately as an annex to this report (and should be referenced in the report).

### II.A. Innovative results

- Innovative results and achievements that could be attributed to the Partnership. (Specific examples of Results vs. Objectives).

*Not applicable yet*

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

*Creation of the community of research and business actors, including companies willing to engage and collaborate for the definition of innovative projects and democases.*

*Participation of the entire partnership to the definition of a proposal for an INNOSUP1 call.*

### II.B. Inter-regional and inter-partnership collaborative results

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

*Please enter here...*

- 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)

*Two Emilia-Romagna Clust-ERs have been involved in the setting up of the regional working group: the Clust-ER MECH and Clust-ER INNOVATE. All partners Regions local working groups involve both big companies, SMEs, Clusters and and business associations int them. In the case of Slovenija, Jozef Stefan Institute is a stron R&I center, with a very extedned network of collaborations with local and internationad companies. Starting from January, ART-ER (formerly ASTER) is included in the DIH Catalogue.*

*For Navarra Region the partner is AIN, the Asociación de la Industria Navarra: an impressive work has been carried on by Navarra's representatives wut their local Companies and SME, carrying in very relevant needs, expertise and Discussion Topics.*

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

*The inter-regional cooperation is strong: to coordinate partners in merging their interests, needs, expertise and expertise is one of the main commitments of the Steering Table.*

*All the Regional representatives participated in writing down a proposal for an INNOSUP 1 call. The needs, expertise and opportunities coming from each Region merged in a final version of the proposal. Most of the entities representing Regions in the Partnership are strongly linked to the industrial network of their Region, giving the Partnership the chance to have a relevant and practical point of view on the socio-economic impacts of its actions.*

### II.C. 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.

*Slovenija is a partner Region, and has recently been appointed as co-leader Region. Last Steering Table*

meeting took place in Lubiana, where all partners had the opportunity to understand the strong involvement of Slovenija, by means of the Jozef Stefan Institute researchers and from local companies they are working with.

Hungary has recently joined the Partnership and started working next to other Regions with a strong commitment.

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

Please enter here...

- Advancement and promotion of the Partnership through publications and other communication/outreach activities. (Number of outreach activities that resulted from the Partnership. A complete list with references and web-links should be given in an annex).

All the members participated to the definition of a INNOSUP proposal in March.

- Activities and projects with partnerships working under other S3 Thematic Platforms (Agri-Food, Energy and Industrial Modernisation).