CONFERENCE MINUTES

D.C4.3 Mid-Term Evaluation Conference in Lombardia

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Minutes of the conference

09.45 – 10.00 Welcome and introduction - Andrea Frollà, moderator

AFIL -Associazione Fabbrica Intelligente Lombardia, Consorzio Intellimech and Politecnico di Milano organised this conference in the framework of CEUP2030 and S3HUB projects in order to discuss AI technologies state of the art as well as the related technological and market trend and provide an overview of European context.

The conference targeted companies, in particular SMEs, with the aim to raise awareness on AI technologies and present the expected evolution of these technologies as well as the European and regional landscape where companies can find support in facing this transition.

Other stakeholders (*i.e. research centers, universities, intermediaries and policy makers*) were also invited to offer them key learnings form the industrial experiences. Due to the restrictions caused by the pandemic, the event was held in hybrid form with participants connected through ZOOM Platform and speakers invited to join the physical stage located at the Conference Hall in Kilometro Rosso – Bergamo.

The event was mainly held in Italian, to favour the participation of local companies, but the English translation was available for foreign attendees.

10.00 – 10.20 European Commission support to AI development in manufacturing

Anne-Marie SASSEN form European Commission – DG CNECT, Digital Transformation of Industrial Ecosystems unit was invited to open the Conference sharing an overview on the actions designed by the European Commission to support the adoption of AI technologies in manufacturing sector.

Key messages transferred through the presentation are:

- Europe will invest heavily in digitalisation of businesses
- European Digital Innovation Hubs will be reaching out to traditional companies and support their digital transformation, including take up of Artificial Intelligence

Considering the topic of Artificial Intelligence, four are the policy objectives set in Europe that will be targeted by the investments in Horizon Europe, Digital Europe and Resilience Facility programmes:

- Set enabling conditions for ai development and uptake in the EU
- Make the EU the right place; excellence from lab to the market
- Ensure AI technologies work for people
- Build strategic leadership in the sectors

10.20 – 10.50 Artificial Intelligence: Technological and market trends

Following the EC speech, Mark Casidsid was invited on the stage to present an overview of the World Manufacturing Foundation Report on Artificial Intelligence, with the aim to set a common understanding of the topic and define the framework of AI in manufacturing sector.

Artificial Intelligence is not just a technology but is increasingly being part of our daily lives. Since manufacturing is an important driver for societal well-being it is strategic to understand how AI can enhance that role and its potential as well as its implications to organisations and its applications.

Going through the 2020 World Manufacturing Report entitled Manufacturing in the Age of Artificial Intelligence, it has been showed in detail the trends in AI adoption, various applications of AI in the manufacturing value chain, how AI is transforming the workforce, and the key relevant ethical and policy themes related to AI in manufacturing

- AI in manufacturing is increasing in relevance with a projected spending in 2021 equal to 9.5$ billion
- Companies are increasingly adopting AI to drive competitive advantage, specifically in smart production and product and service fields.
- Some barriers remain and are holding back companies from adopting AI, such as: *lack of data resources, uncertainty about how to implement AI solutions, Lack of skilled workforce, Lack of interoperability*

The speech closed with a set of key recommendations by the WMF:

- Foster Public Conversations to Increase Understanding and Build Trust in AI Systems
- Manage manufacturers' expectations of AI capabilities
- Implement Ethical Considerations Throughout the AI Life Cycle
- Ensure data quality, privacy, and availability
- Put humans at the center of AI work environments
- Ensure AI strategic alignment across the entire organisation
- Support manufacturing SMEs in their journey towards AI
- Promote AI to support Resilient Supply Networks
- Educate and Train the current and future workforce to be prepared to work with AI
- Implement standards, policies, and regulations to guide a sustainable AI adoption

Following this presentation, Nicola Gatti from Osservatorio AI Politecnico di Milano showed the italian and lombardy perspective through the results of a survey for which more than 350 companies were interviewed. In 2020 the AI Italian market registered an increase of 15%. The manufacturing sector is covering the 13% of the revenues.

From the survey it emerged that 53% of the companies interviewed started an AI project. This percentage increased up to 61% considering big companies. Budget restrictions affected the implementation of AI projects, but companies did not stop their AI adoption programs, even if the budget was reduced and the effects due to the pandemics were important. Among the critical issues for the development of AI projects they highlighted:

- Data integration, preparation and labelling (65%)
- Business case development (59%)
- Security & Privacy (56%)

10.50 – 12.00 Lombardy Manufacturing sector toward AI: Peculiarities, priorities, and barriers

Starting from an analysis of Lombardy manufacturing ecosystem peculiarities, the event offered the opportunity to discuss the main priorities and the barriers which have been identified by local stakeholders who have invested or are willing to invest in AI applications. To do so, representatives from diverse stakeholders of the region were invited to the debate, namely: **Giacomo COPANI – Cluster Manager | AFIL , Viviana D'Alto - Artificial Intelligence Software & Tools Research Platform Director | STMicroelectronics, Diego Andreis – Managing Director | Fluid-o-Tech, Giorgio Ascanelli – Chief Technical Officer | Brembo, Gianluigi Viscardi – President | Consorzio Intellimech**

The main takeaways from their round table were:

- AI applications are enabled by **data which must be certain, unique and guaranteed**
- The development of s**ensors and intelligent components able to collect and elaborate is becoming more and more strategic** since they are enabling advanced services which delivers value added for both the producer and the end user
- The simultaneous consultation of a **large amount of data, synchronous throughout the entire vaule chain** is needed to have a realist prediction
- Ensuring the alignment along the value chain can be done only **establishing strategic collaboration in the ecosystem,** where companies, universities and research centres implement an "holistic" approach for data review.
- **Knowledge management and formalisation of the know-how available in the company** is essential to fully exploit the potential of AI

12.00 – 12.20 Good practices from innovation ecosystem

The event closed with the presentation of two good practices from the Lombardy innovation ecosystem, which stressed the importance of leveraging on open innovation and being involved in virtuous cooperation networks to ensure company competitiveness in such dynamic contexts.

The first case was brought by Fabio Previdi, professor of Università degli Studi di Bergamo and technical coordinator of the regional project WATCHMAN which has the aim to develop the Lombardy hub for AI applied to machine vision

Then Sergio Gusmeroli, from Politecnico di Milano, introduced the EU project AIREGIO – Regions and Digital Innovation Hubs alliance for AI-driven digital transformation of European Manufacturing SMEs in which the cluster AFIL was able to involve some of ist associates establishing interregional connections with the main EU partner regions.