

# Press Release

October 2024

## Human-Centered Industrial Innovation Wins GIECS Best Paper Award

Recognition awarded to the research team from the Polytechnic University of Milan for their work in addressing interoperability and efficiency challenges in human-centric manufacturing.

The [INCODE](#) consortium is proud to announce that the Polytechnic University of Milan (*Politecnico di Milano*), a partner in the project consortium, received the Best Paper Award at the [Global IoT&Edge Computing Summit \(GIECS\)](#) in Brussels (24 September 2024), co-located with the [AIOTI Days 2024](#) (24-25 September 2024). The paper, titled "**Approaching Interoperability and Data-related Processing Issues in a Human-centric Industrial Scenario**," was presented by its author [Walter Quadrini](#), earning recognition from the conference's scientific committee for its contributions to the field.

### Manufacturing Technology for Europe's *Industry 4.0*

The award-winning paper addresses critical challenges in the manufacturing industry, particularly focusing on the use of 5G private networks and Edge-to-Cloud infrastructures to overcome latency and computational efficiency hurdles. These technologies are essential for creating a human-centric production environment, where **seamless interoperability and rapid data processing** are vital. Quadrini's presentation outlined how these advanced network capabilities can support manufacturing's shift towards a more **worker-centered approach**, allowing for greater efficiency and resilience in industrial operations.

Experiments were held at the [MADE Competence Center for Industry 4.0](#) in Milan where INCODE deploys its application area on [smart worker assistance](#). The research activities were led by Danish Abbas Syed, with significant contributions from co-authors Nima Rahmani Choubeh, Marta Pinzone, and Sergio Gusmeroli. The paper's success at GIECS 2024 not only reflects the outstanding achievements of the research team but also highlights the broader impacts of Horizon Europe projects like INCODE and [aerOS](#), which provided essential software and networking resources for this research.

Human-centric manufacturing for Industry 4.0 emphasizes the role of technology in enhancing workers' well-being, safety, and productivity by integrating advanced digital tools that adapt to human needs. This approach not only improves operational efficiency but also supports **sustainable and flexible manufacturing systems** that can better respond to changing market demands and societal expectations. This approach not only aligns with the EU's commitment to social responsibility and inclusivity but also enhances competitiveness by fostering adaptable, innovative, and resilient industries.

## Engaging the IoT and Edge Computing Community

Sergio Gusmeroli further explored these ideas during an AIOTI workshop session titled, “*Cloud-Edge-IoT (CEI) Technologies at the Service of European Sustainable Manufacturing Industries.*” This session delved into the transformative role of CEI technologies in fostering sustainable advancements in European manufacturing, underscoring the value of INCODE’s research initiatives.

Following the conference, Quadrini also engaged with members of the AIOTI community to discuss how the INCODE project’s solutions can facilitate the integration of wearable devices within complex information systems. This collaboration could enable more robust and effective **human-machine interactions within smart manufacturing environments**, showcasing the INCODE solution’s potential impact on the future of Industry 4.0.

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### More information

Make sure to follow INCODE channels to stay updated on the **publication announcement** of *Approaching Interoperability and Data-related Processing Issues in a Human-centric Industrial Scenario* by Walter Quadrini, Syed Danish Abbas, Rahmani Choubeh, Marta Pinzone, and Sergio Gusmeroli.

For more information on the **INCODE Worker Assistance Application Area**, visit the dedicated [webpage](#) on the project website.

For more information on the **Industry4.0lab** at the Polytechnic University of Milan, visit the [website](#) of the research group.

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