ARTES 4.0 – Advanced Robotics and enabling digital Technologies & Systems 4.0¹

ARTES is a multi-technological Hub that develops innovative Industry 4.0 projects in support of SMEs and microentrepreneurs so to enable their success in the digitalisation path.

ARTES 4.0 is one of the 8 Competence Centers selected by the Ministry of Economic Development within the Industry 4.0 National Plan in Italy.

Through ARTES 4.0 and its facilities, companies and private firms are able to access to multiple funding opportunities up to \in 200,000 directly from MiSE.

ARTES 4.0 communicates its initiatives and programs to SMEs, private and public foundations, Associations and government agencies.

ARTES' activities cover the following thematic areas:

- Robotic. AI and "collaborative machines"
- Model-based control systems for multivariable analysis
- Technologies for real-time process optimization
- Applications and technologies for data storage and processing
- Basic software infrastructure
- Cyber-security technologies
- Augmented and virtual reality and multisensory telepresence systems
- Robotic and augmented reality technologies and sensor systems for predictive maintenance and training
- Technologies 4.0 to improve workers' health and safety at work
- Development and characterization of advanced materials
- Digitization and robotization of processes
- Technologies, networks, systems and communication, both wireless and wired.

ARTES 4.0 services fall under the following categories:

• ORIENTATION:

In a collaboration with national and international DIHs, ARTES 4.0 assesses the level of digital and technological maturity of its clients in order to proactively support them throughout the digitalisation of their processes and assets.

• EDUCATION and TRAINING:

ARTES 4.0 develops classrooms and training projects greatly focused on ICT and "intelligent robotics" in order to foster, promote and spread Industry 4.0' skills and digital education among current and future generations of entrepreneurs

• INNOVATION PROJECTS:

ARTES 4.0 guarantees the access to MiSE assets in order to facilitate innovation development, industrial research and experimental IT projects. These initiatives are aimed to remarkable

¹ https://artes4.it/





products, processes or services' improvement through the adoption of advanced technologies in the 4.0 research fields.

- BUSINESS MANAGEMENT CONSULTANCY
- -business model innovation services
- -technology scouting
- -innovation management
- -marketing
- -desk analysis of macroeconomic and social dynamics related to Industry 4.0.

Strengths and lessons learnt

MiUR and MISE's reinforcement assures great reliability upon each activity conducted and promoted with the organisation; ARTES 4.0 "catches", understand and satisfy the innovation needs expressed by companies, in particular SMEs, helping them to identify their innovation and competitive paths.

ARTES 4.0 is also an innovation accelerator that greatly boosts industrial applications, product engineering and design, job qualification and employability opportunities for all.

Successful digitalisation strategies require as mandatory condition the proliferation from the bottom of the socio-economic system of a supportive cross-sectorial ecosystem that enables and triggers great knowledge transfer.

Such bottom-up approach is much more efficient and effective than a sterile top-down financial commitment that is not framed into any concrete long-term strategy.

