



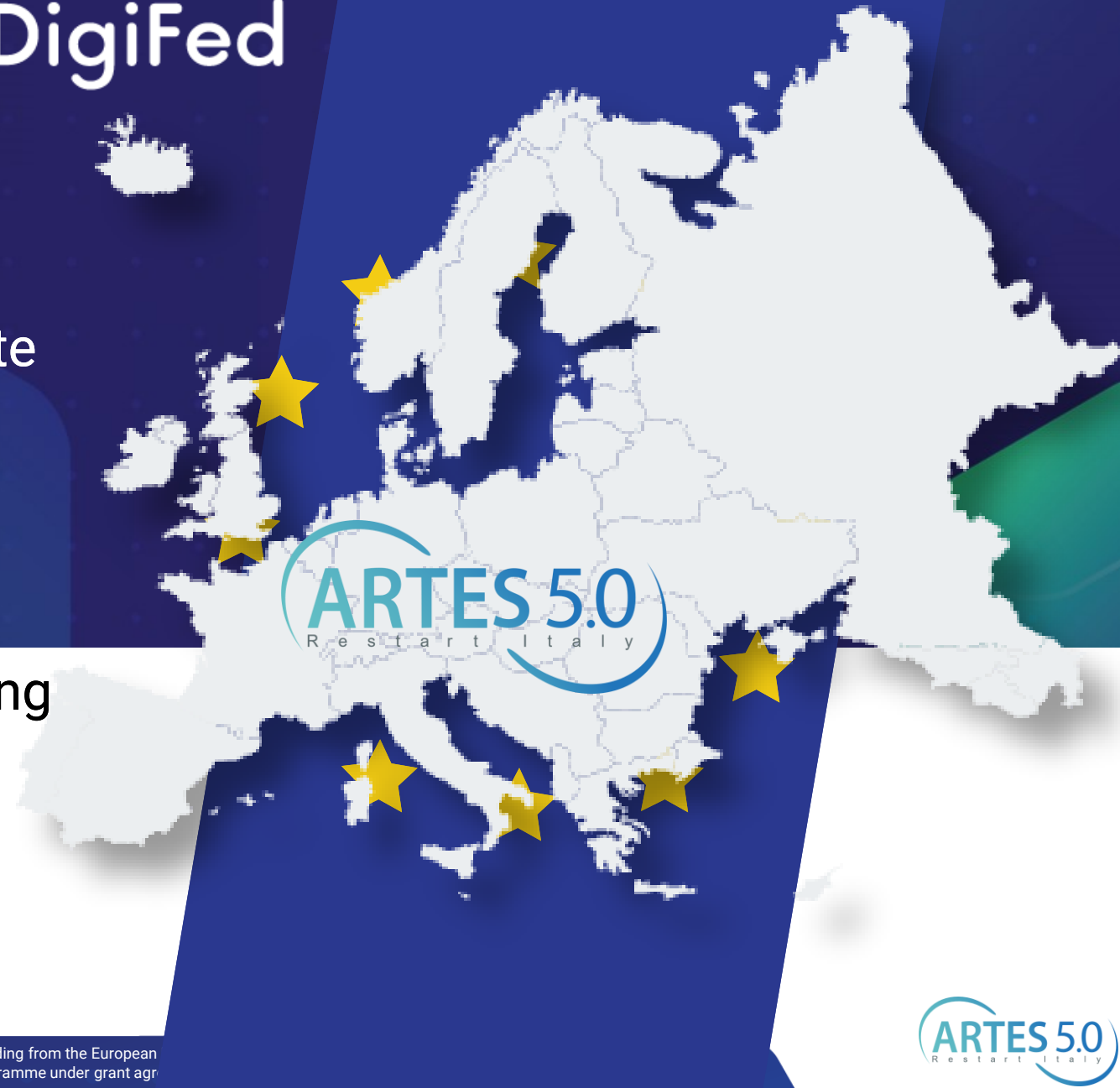
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 864266.

# What is ARTES 5.0?



*ARTES 5.0 Restart Italy* is part of the *Network of European Digital Innovation Hubs (EDIH)* co-funded by the *Digital Europe Programme* for offering to private and public organisations access to technology testing and support in their digital transformation.

*ARTES 5.0 Restart Italy* aims at promoting the widespread adoption of digital technologies, with a **focus on Artificial Intelligence and Robotics**, to nurture sustainable, human-centric and resilient value chains.



# Technology Focus Topic <sup>1/2</sup>



## Scope

ARTES 5.0 – Restart Italy aims at a widespread nationwide adoption of digital technologies, with focus on **Artificial Intelligence and Robotics**, to nurture sustainable, human-centric and resilient value chains in line with the Digital Europe Programme.

ARTES 5.0 operate as a **network of hub and spokes** of highly qualified aggregations of competences and stakeholders, designed to transfer skills to Micro, Small and Medium Enterprises and to Public Administration.

ARTES 5.0 will offer innovation services purposely designed to accelerate digital and ecological transition in different economic sectors such as **health** and **quality of life**, **sustainable manufacturing**, **regeneration economy**, **creative and cultural industry**.

Special attention will be devoted to the crucial energy sector.

ARTES 5.0 exploit technology to **reduce the number and severity of accidents at work**.

ARTES 5.0 will be an access point for companies and PA to an interconnected innovation ecosystem of knowledge, skills, and infrastructures of excellence, distributed throughout the Italian territory and connected to several European EDIHs.

# Technology Focus Topic <sup>2/2</sup>



## Scope

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ARTES 5.0 will offer users training, access to investments for innovation and advanced technical facilities for test-before-invest available in **three Competence Centers (ARTES 4.0, MediTech and START 4.0)** promoted and co-funded by the Italian government, to be further expanded within Digital Europe.

ARTES 5.0 initiatives will be spread to users through a charter of services, designed to make the effects of innovation tangible in real business scenarios, overcoming cultural and geographical barriers.

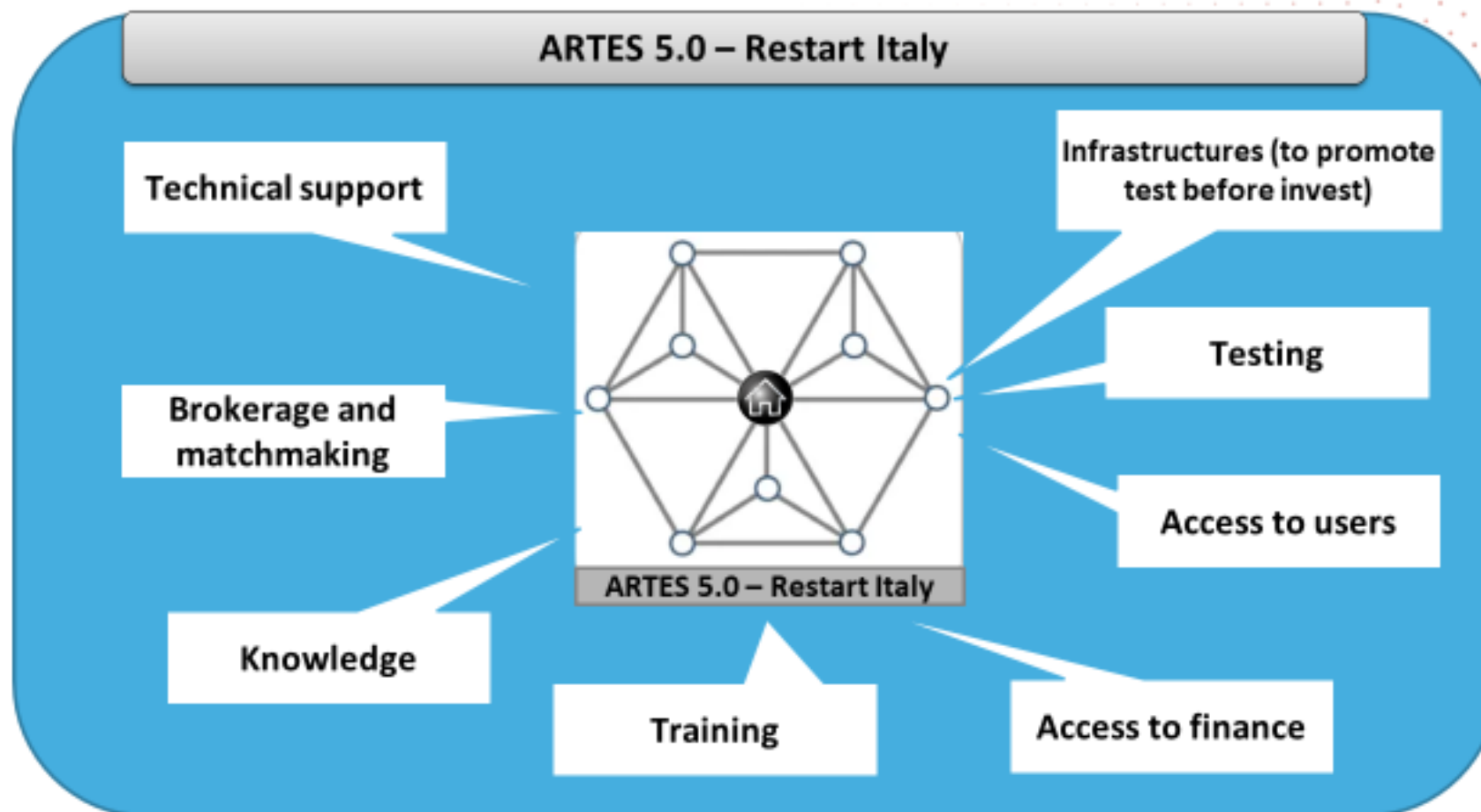
The Governance of ARTES 5.0 has been designed to achieve efficiency and effectiveness, while ensuring transparency and participation.

ARTES 5.0 has signed MoUs and Lols with several EDIH proposals, sharing vision, strategy, and models, to strengthen initiatives, promote synergies with the aim to increase its impact from a local and national level to a broader European level

# Technology Focus Topic <sup>3/5</sup>



## ARTES 5.0 – Ingredients





# The Vision and the Mission of ARTES 5.0



ARTES 5.0 vision is to help “restart” the business system by tackling the challenge of *sustainability* aiming for the *fifth industrial revolution* beyond the *Do No Significant Harm principle* and in coordination with the *National Recovery and Resilience Plan*

*Regeneration economy* and *AI systems* applied to digital technologies and *intelligent machines* are key elements for the digital transformation in line with the objectives of the *Innovate EU Strategy*, the *Green Deal* and the *Next Generation EU Plan*

ARTES 5.0 will *orient Companies and Public Sector Organisations (PSOs) to new directions*, fully using innovative technologies, massively introducing intelligent machines for sustainability, and further *projecting them beyond 4.0 towards the Fifth Industrial Revolution* and *Regeneration Economy*

ARTES 5.0 *specific focus is on Artificial Intelligence (AI) and Robotics*, to nurture *sustainable, human-centric* and *resilient value chains* by means of *science-based technological and cultural discontinuities*, in line with the present challenges faced by the European Union and with the Digital Europe Programme objectives.



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# ARTES 5.0 Restart Italy Consortium

ARTES 5.0 is arranged as a *hub & spokes* model that brings together *17 partners* and *3 associated partners* with *complementary competences*, representing *different stakeholders* and covering the *digital transformation needs* of SMEs, small mid-caps and PSO's *on the whole Italian territory*, down to the local level.



The Institute for Robotics and Intelligent Machines, aims to favor the development and practice of Robotics and Intelligent Machines technologies to improve citizens quality of life and well-being and enhance society conditions.



Competence Center on Advanced Robotics. 127 Members: 13 Universities and Research Institutions, 95 Companies (including 17 large enterprises) 17 foundations and non-profit organizations, 1 regional DIH, 1 National Institute (INAIL).



Digital Innovation Hub accredited by the Ministry of Economic Development. Through its Scientific Committee composed of 20 members from 14 universities and research institutions, technology services and digital training programmes.



Consultancy firm (former PwC Public Sector) of over 700 professionals providing organisational consulting and professional services to Italian and European institutions, administrations and businesses.



Sant'Anna School of Advanced Studies is a public university institute - with special autonomy - working in the field of applied sciences.



INAIL is an Italian non-economic body that manages compulsory insurance against accidents at work and professional diseases.



Confartigianato is the most representative Italian organization of crafts and micro and small enterprises.



Intesa Sanpaolo is the leading banking group in Italy, with over 3,700 branches and 13.5 million customers.



Competence Center on Security and Optimization of Strategic Infrastructures. Led by the Italian National Research Council (CNR), 38 Members (5 public and 33 industries) with a common agenda: fostering enabling technologies application to boost efficiency, protection and safety of processes and physical & IT/OT critical infrastructures and assets.



Public research body enjoying technical-scientific and regulatory independence, performing activities for environmental protection and sustainability. Receives general guidance from the Minister of the Ecological Transition.



Symbola Foundation analyzes and aggregates Italian Quality. Green economy, culture and social cohesion are our main drivers for a new quality-oriented economy model development.



CNA is a Trade Union operating in all the Italian provinces, with 19 Regional seats and 95 Territorial seats, hiring about 7,500 employees directly or in its group companies. CNA represents micro, small and medium-sized enterprises, with particular reference to the craft sector, and has over 622,000 members who employ over 1.2 million people.



Non-profit company. It carries out engagement and digital diagnosis of SMEs/PAs in Lazio, using an in-depth analysis methodology of digital maturity and guiding them towards the best digitalization path.



The CINI (National Interuniversity Consortium for Information Technology) is today the main point of reference for national academic research in the fields of Information Technology and Information Technology.



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Promoted by Confindustria Umbria, the Digital Innovation Hub is an organization aiming to promote, inform and support local companies in their path towards the digital transformation.



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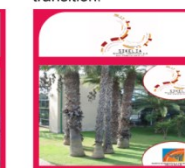
A board of entrepreneurs, a team of professionals and a structure with a network of ten contact points that in its 5 years of operation has developed a strong experience in supporting business in digitization process. DIH Toscana is part of Confindustria's DIH Catalogues as a fully operational DIH, and is directly linked to the Enterprise Network and other EU initiatives, such as PhotonHub Europe.



EDI is the digital innovation hub of Confindustria Imprese per l'Italia, a non-profit organization founded in 1945 which is the largest national trade association with more than 750,000 enterprises.



Dintec - Consortium for technological innovation, 35 partners: 33 Chambers of Commerce and Regional Unions; Italiancamere, ENEA - Italian National Agency for New Technologies. We offer services and tools to accompany SME in digital and ecological transition.



SIKELIA is a registered network led by PSI that brings together the main innovation ecosystem players in Sicily region. Sikelia bring together about 60 public and private entities as Competence Centers, aggregators, business associations with a specific focus on digital area, technology districts, public authorities, regional bodies, research organizations, SMEs, large enterprise and universities.



Competence Center which targets the use of Enabling Technologies of the 4.0 industry towards the diffusion of innovation practices for SME/PA. 138 members: 8 universities, 22 ordinary consortium members and 108 affiliated companies.



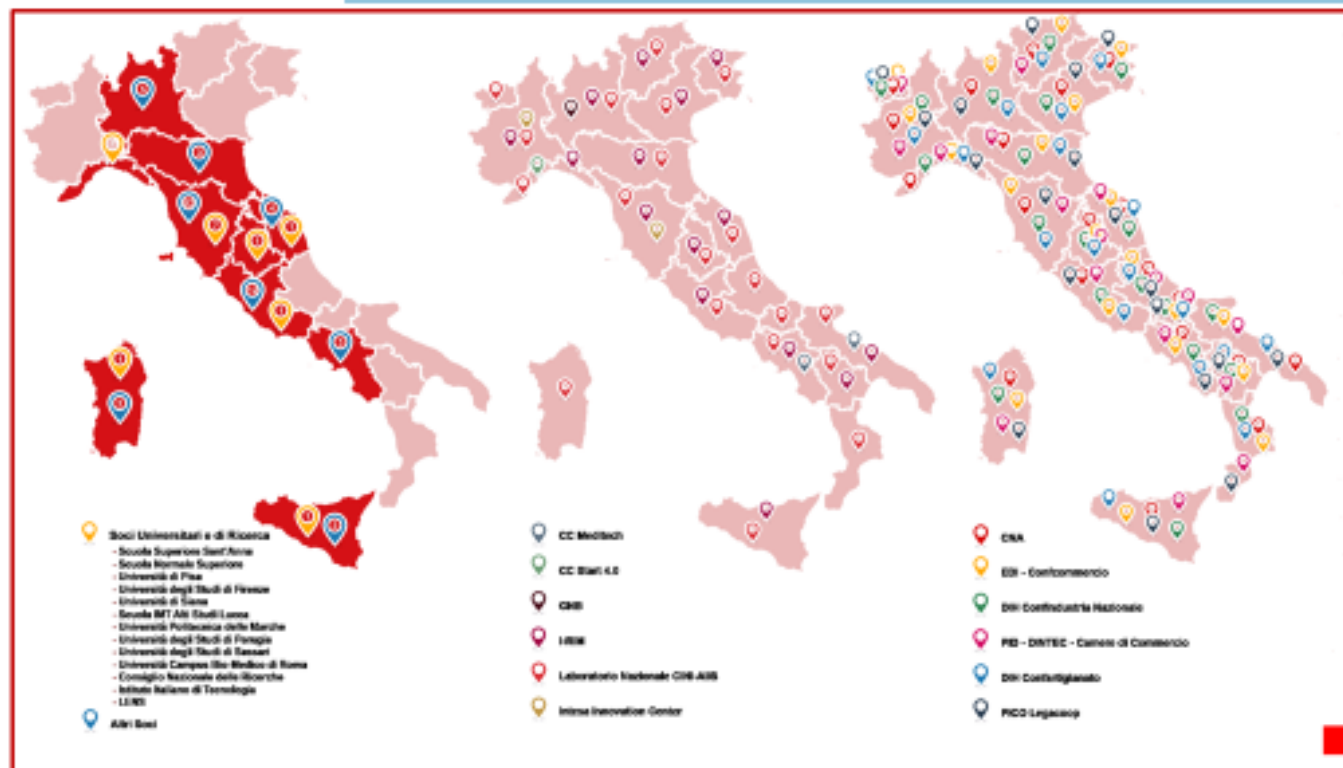
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# Geographical Region and Industrial Sectors



## CONSORTIUM



**Consortium  
ARTES 5.0 – Restart Italy**

<b>ARTES 4.0</b> Capofila e soggetto gestore del Polo ARTES 5.0.
<b>Cicero DIH</b> DIH di Confindustria per Regione Lazio.
<b>CINI</b> Consorzio Interuniversitario Nazionale per l'informatica.
<b>CNA</b> Confederazione Nazionale dell'Artigianato e della Piccola e Media Impresa
<b>CONFARTIGIANATO</b>
<b>Dintec</b> Consorzio di Unioncamere, Camere di commercio ed Enea; coordina la rete degli 88 Punti Impresa Digitale delle CCIAA.
<b>EDI.it</b> DIH di Confindustria Imprese per l'Italia
<b>Fondazione PICO</b> DIH di Legacoop al servizio delle cooperative italiane.
<b>Intesa Sanpaolo</b>
<b>I-RIM</b> Istituto di Robotica e Macchine Intelligenti
<b>Meditech</b> Il Centro di Competenza delle Regioni Campania e Puglia.
<b>PwC Public Sector</b> PRICEWATERHOUSECOOPERS PUBLIC SECTOR S.r.l
<b>START 4.0</b> Il Centro di Competenza della Regione Liguria
<b>Umbria DIH</b> DIH di Confindustria per Regione Umbria

<b>SIKELIA</b>
<b>EDIH Sicilia</b>
<b>Symbola</b> Fondazione per la promozione delle Qualità Italiane, Green economy, cultura e coesione sociale.
<b>Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA)</b> Protezione ambientale, marina, delle emergenze ambientali e di ricerca.



The ARTES 5.0 EDIH is coordinated by *ARTES 4.0 Advanced Robotics and enabling digital TEchnologies & Systems 4.0*.



*ARTES 4.0 partnership includes 127 members:*

- 13 Universities and Research Organisations
- 95 Companies (17 large enterprises)
- 17 Foundations and Non-profit Organisations
- 1 regional Digital Innovation Hub
- The Italian Workers' Compensation Authority

ARTES 4.0 is one of the **Industry 4.0 Competence Centres** co-funded by the Italian Ministry of Economic Development in the framework of the Italy's plan *Impresa 4.0*.

ARTES 4.0 supports companies with awareness, training and demonstration activities and in research and innovation projects (TRL 5-8) for spreading Industry 4.0 technologies.

ARTES 4.0 is structured as a **highly specialised network distributed throughout Italy** whose members provide **cutting-edge research and high-quality innovation**



# Participation of ARTES 4.0 as a partner in 6 EDIH regional proposals



	TECHNOLOGICAL FOCUS
EDIH Toscana	Focused on the 3 technologies of the Digital Europe Programme 2021-27: <b>Cybersecurity; High Performance Computing (HPC) and Artificial Intelligence</b> . The hub will have as its users' basin the Region of Tuscany and focus on the Digital Transformation of enterprises and public administrations and three macro-sectors (Manufacturing, Health care and Wellness).
EDIH Marche	The hub's technological focus is mainly on two thematic areas, <b>Artificial Intelligence (AI) and CyberSecurity</b> (CS with an almost total and multi-sectoral business target).
EDIH Umbria	The hub is characterised by a multi-sectoral technology focus and addresses a regional catchment area (NUTS 2 - Umbria Region). It focuses on the three advanced technologies, <b>AI, HPC and Cybersecurity</b> .
EDIH Puglia	Puglia Innovation Centre for Safety and Security (PICS2) aims to support companies and public bodies operating in Industrial Development Areas (ASI) and Special Economic Zones (ZES). It focuses on two advanced technologies <b>Artificial Intelligence and Cyber Security</b> .
EDIH Sardegna	SHARD-HUB is a one-stop-shop providing access to services and equipment in all the <b>technology areas indicated in the call (HPC, CS AI)</b> , with an integrated service offer (from partners dedicated to research and technology transfer).



# Application Domains and Key Enabling Technologies

ARTES 5.0 will offer *innovation services* purposely designed to accelerate digital and ecological transition in different economic sectors such as *health and quality of life, sustainable manufacturing, regeneration economy, creative and cultural industry*.

Special attention will be devoted to *exploit technology to reduce the number and severity of accidents at work, and to improve occupational safety and health*.





# Innovation Services for Businesses and Public Administrations

## SERVICES

### Test Before Invest On AI & Robotics

### Training and Skills Development

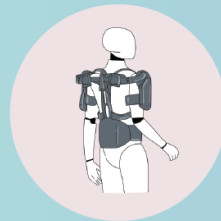
### Support to Find Investments

### Innovation Ecosystem And Networking



#### TEST BEFORE INVEST ON AI & ROBOTICS

- Digital maturity guided assessment on AI and Robotics;
- Knowledge and technology transfer;
- Strategic and specific R&D, Contract research and technical support on PoC development and scale up;
- Testing and validation of PoC/prototypes/pilots and products;
- Access to infrastructures and technological platforms (Collaborative robotic platforms, Sensor-based intelligent systems, IoT & smart systems, VR/AR technologies, AI-based analysis and forecasting systems);
- Ethical AI validation.



#### TRAINING AND SKILLS DEVELOPMENT

- Awareness-raising and orientation activities for digital and green transition;
- Vertical and custom training courses on specific technologies;
- Advanced courses and internships, industrial doctoral programs.



#### SUPPORT TO FIND INVESTMENTS

- Assessment of financial needs and business planning based on business & tech assessment, patent analysis and financial advisory services;
- Access to public financing, private financing and capital market (helpdesk on financial instruments, scouting and matching of opportunities for companies; reporting and planning of programmes for PSOs);
- Industrial, financial and IP Protection consultancy for project development.



#### INNOVATION ECOSYSTEM AND NETWORKING

- Scouting and mapping of ecosystems;
- Ecosystems building and awareness;
- Brokering services and strategy development;
- Networking services.



# ARTES 5.0 Cross-border Collaborations

ARTES 5.0 is initiating long-term *partnerships with other EDIHs in Italy and neighbouring regions abroad*, sharing the technological focus on Artificial Intelligence and Robotics.

Furthermore, *a wide and solid network of active collaborations developed over the years by the ARTES 5.0 consortium* members already exists at both national and European levels.

