



DIGITAL INNOVATION HUB

UNIVERSITY OF MARIBOR



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@ UNIVERSITY OF MARIBOR

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Digital Innovation Hub facilitating the supporting environment for HPC services

Maruška Čuš, DIH UM

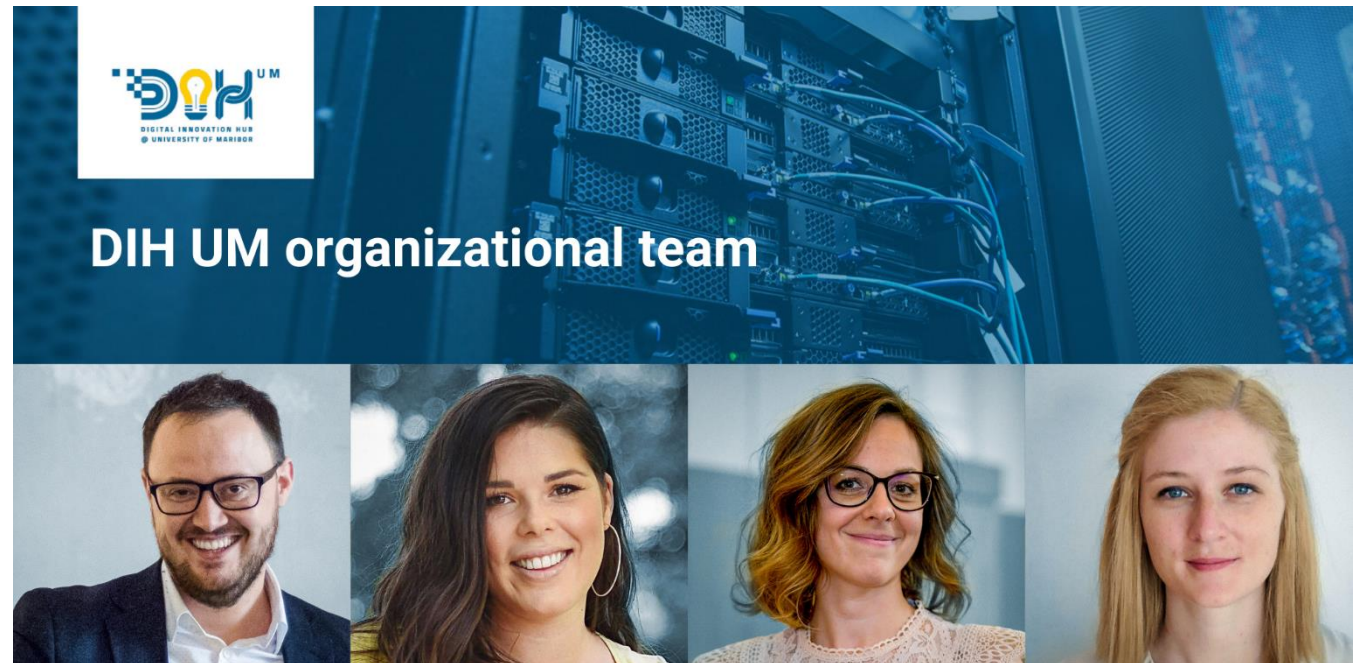


The University of Maribor is the largest research organization in the Cohesion Region of Eastern Slovenia

DIGITAL INNOVATION HUB UNIVERSITY OF MARIBOR



- Regional network of research, industrial and support institutions.
- DIH UM acts as a single-entry point for the Slovene Eastern Cohesion Region and helps the economy identify suitable partners who can help them in the digital transformation process.
- DIH UM is involved in important networks at the EU level - Enterprise Europe Network (EEN), Danube Transfer Center, DEMOLA, Vanguard Initiative, ADMA, AIOTI and TETRAMAX.



DIH-WORLD

WIDENING DIGITAL INNOVATION HUBS

— Open Call —

The DIH-World project consortium is launching its first open call to select and support up to 35 SME-driven experiments.

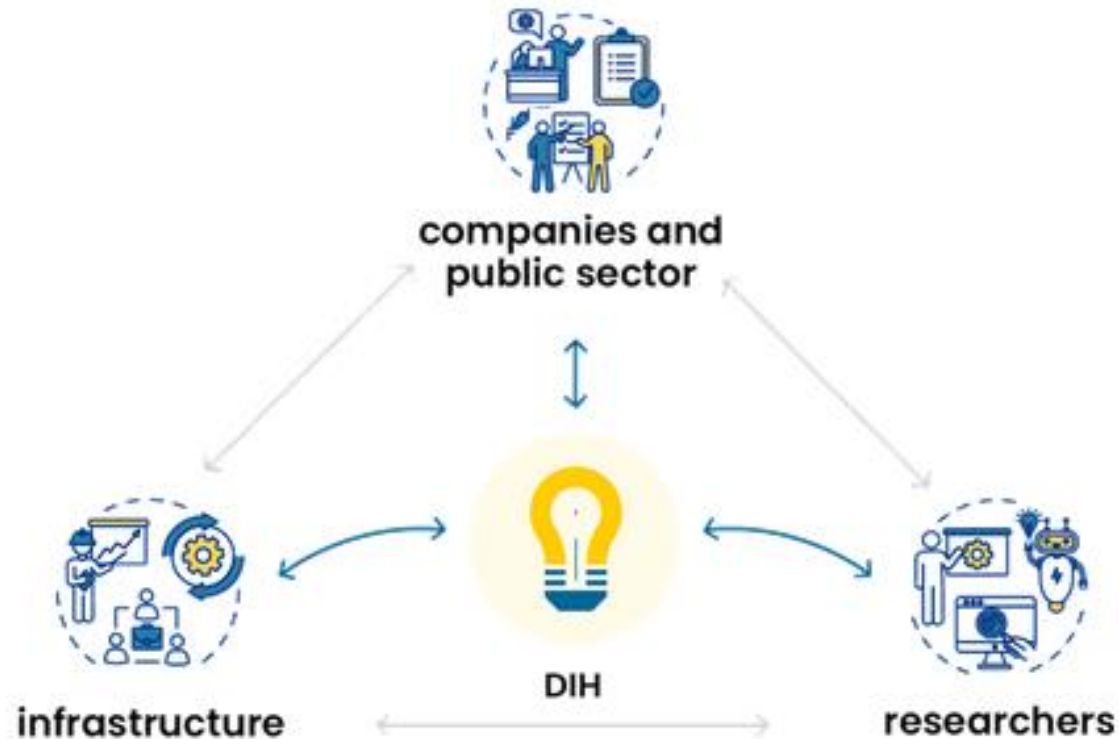


AI REGIO

AI REGIO

The AI REGIO “Regions and Digital Innovation Hubs alliance for AI-driven digital transformation of European Manufacturing SMEs”, will build a one-stop-shop platform that enables access to resources for AI-based solutions in efficient and sustainable manufacturing, with particular emphasis on resources that can lower the AI adoption barriers for SMEs.

WE CONNECT AND FACILITATE COMMON PROGRESS



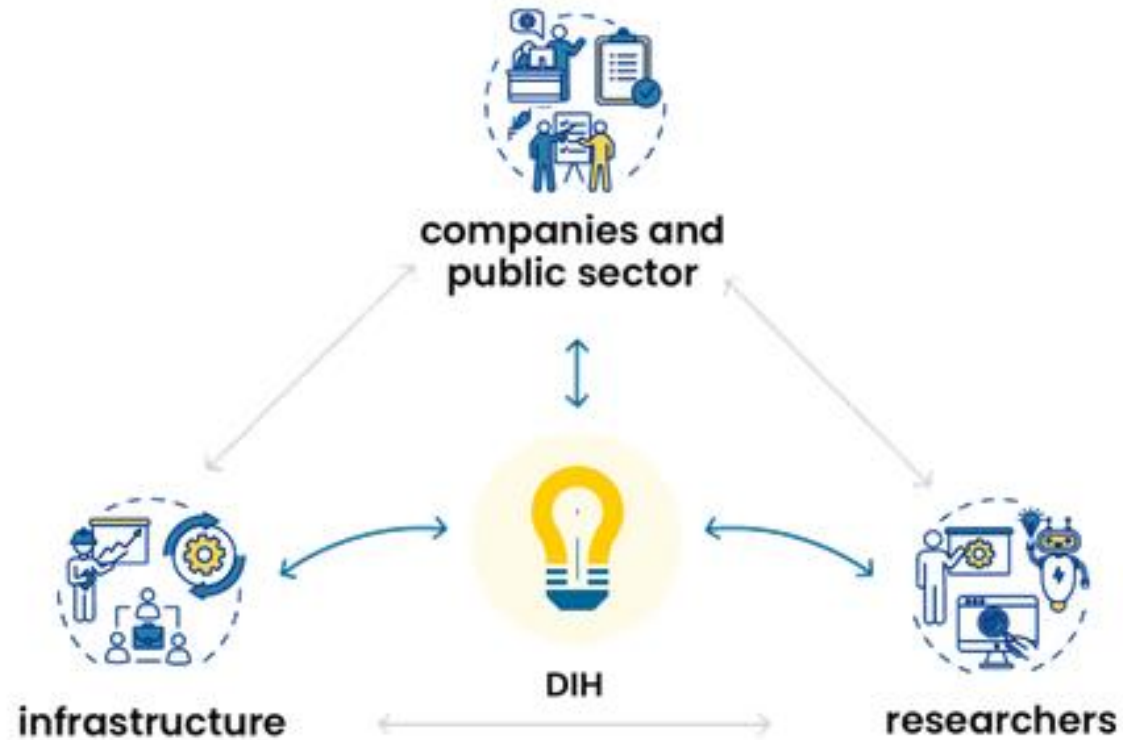
Companies and public sector

- We can help you find calls for cooperation opportunities;
- Connections with our expert network;
- Access to specialized research equipment;
- Support the implementation of digital innovations;
- Help identify the right solutions;
- Our experts can guide you in the creation of a digital strategy for your organization.

Researchers

- We can help you find new project partnerships within different industries;
- Identify the right funding opportunities;
- Establish cooperations in R&D projects;
- Promote your technological innovations and;
- Advise you on intellectual property legislation.

WE CONNECT AND FACILITATE COMMON PROGRESS



Infrastructure

- Modern and powerful research infrastructure (RI) is essential for the implementation of the basic scientific research activity
- UM coordinates two major infrastructural projects;
 - [HPC RIVR](#), which aims to establish a national supercomputing centre,
 - [RIUM](#), which aims to acquire and integrate state-of-the-art scientific research equipment in prioritized research fields
- **692** pieces of research equipment with value over EUR 5,000.00



HPC RIVR

Is not only the most powerful public supercomputer in Slovenia but one of the most powerful supercomputers in the wider cross-border region. It operates with the aim of opening up new research and development fields in segments that help to shape global trends. The computing capacities are available according to the open research infrastructure principle.

OUR SERVICES



**Skills and
educationn**



**Financing
innovation**



**Business support
and consultancy**



**Finding
international
partners**



**Community
building**



**Strategy
development**



**Community
networking events**



Promotion

OUR SERVICES:

CO-DEVELOP, TEST, AND LAUNCH NEW PRODUCTS AND SERVICES



Strategic research and development projects and contract research

We foster the establishment of successful partnerships for the joint implementation of R&D projects.



Experimentation / Prototyping

Providing technical support on company's scale-up and also provides instant access to its available and extensive R&D infrastructure.



Testing phase

Providing product demonstration for companies.

DIGI-SI CONSORTIUM

- Coordinated by DIH UM
- Six partners from across the country, boosting its competences and enriching its activities, while also enabling an even development of the digital transformation of the entire Slovene region.
- An European DIH candidate.
- Towards the DIGI-SI consortium thus providing the wider region with a HPC specialized EDIH.





WE WORK IN VARIOUS TECHNOLOGICAL AREAS OF DIGITALIZATION

Photonics, Electrical and Optical Functional Materials

Gamification

Intelligent Business and Logistic Models

Internet of Things

Interaction Technology

Web Services

Cybersecurity

Cyber Physical System

Communication Networks

Laser Technology

Location-based Technologies

Mass data, data mining

Micro and nano technology

New Media Technologies

Organic and Large Area Electronics

Cloud Computing

Software Development

Robotics and Autonomous Systems

Simulation and Modeling

Super-computer RIVR

Artificial Intelligence

Virtual Reality Monitor Technologies

Blockchain

MAHEPA

Highly efficient, low-emission, serial hybrid-electric powertrains enable the development of technologies for megawatt hybrid hydrocarbon and hydrogen propulsion systems with zero emissions.



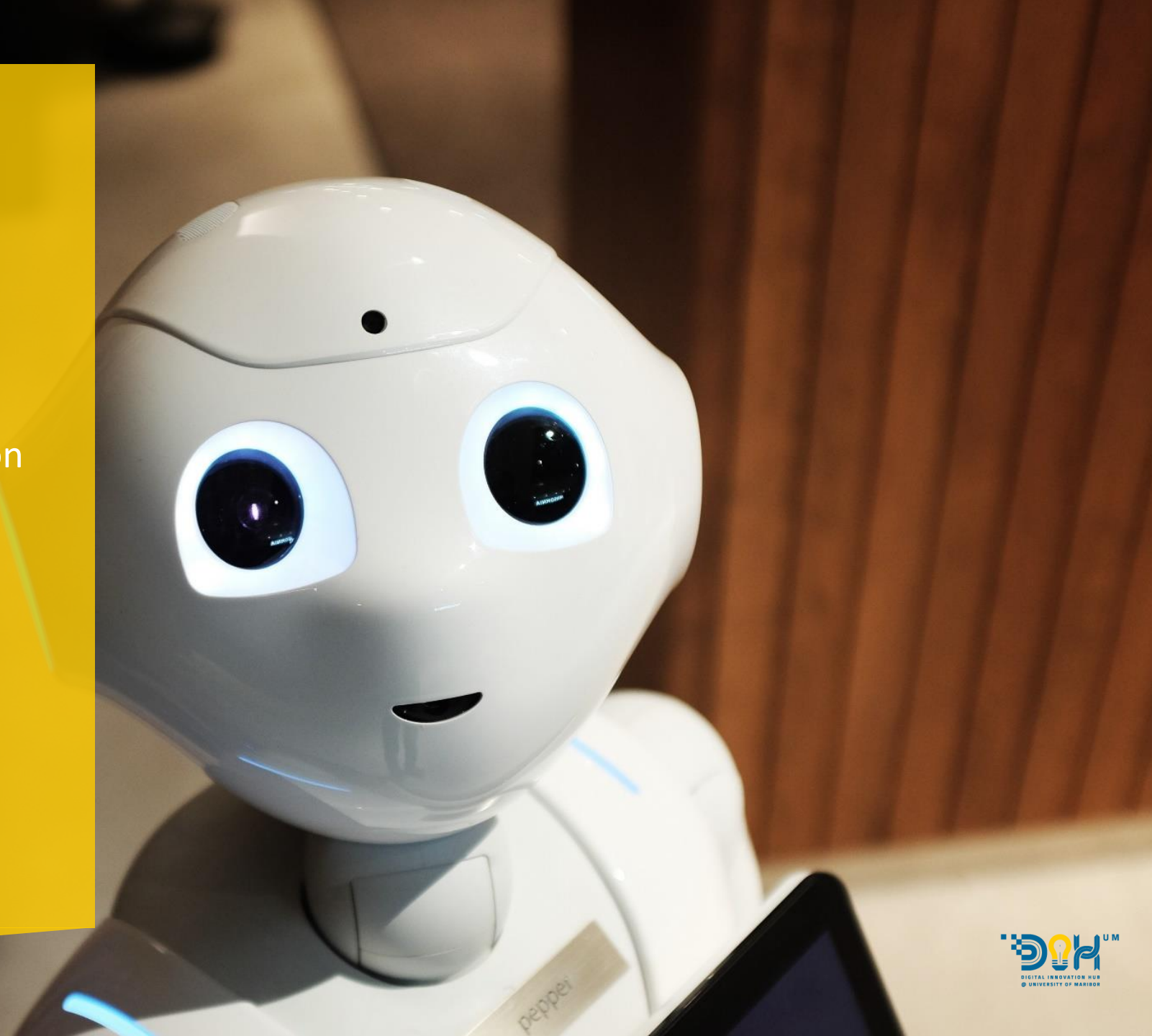
FARMBEAST

Autonomous agricultural robot, with a system for selective weeding which is capable of performing a smart application of PPP.



HUMANOID ROBOT

- I. The robot will be involved in the development of an innovative ecosystem based on artificial intelligence technologies and big data to support physician decision-making.
- II. The robot provides basic and in-depth programming, control, basics of machine vision for object recognition.



ROBOTIC HAND

Development of robotic production systems with the help of ordinary and collaborative industrial robots.



EduCX

EduCTX is a digital platform for assigning, managing, storing, sharing and displaying digital micro-certificates. It is based on blockchain technology, smart contracts and decentralized applications, or on a decentralized and distributed environment.

An overhead, top-down view of a group of people sitting around a large wooden table in a meeting. Several laptops and tablets are open on the table, and people are interacting with them. The scene is dimly lit and has a blue color cast. The text 'Become a part of the digital revolution' is overlaid in the center in a bold, white, sans-serif font.

**Become a part of the digital
revolution**

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