DERHE Project Newsletter

UNIVERSITY OF SARAJEVO

UNSA special edition
October 2026



From capacity building to practical results

Through DERHE, the University of Sarajevo (UNSA) is bringing together digital infrastructure, professional development, and hands-on learning to create a stronger, more joyful teaching/learning environment. In this issue, we spotlight the project's key achievements: building the digital foundation of the Learning Center by drawing on existing resources such as Digi.Edu and work developed through other projects; strengthening connections among the university, industry, and society through practical training for companies and student-led solutions to real-world challenges; and advancing UNSA's approach to sharing project outcomes and ensuring long-term sustainability.

RESULTS AT A GLANCE

100 days, 6 IT companies and 4 agrifood companies

1 international student hackathon – UNSA and UT

3 scientific papers – prepared by **students**

3 new courses on database + 3 updated courses

1 master's thesis with **an international mentor** (SLO + BA) + 6 thesis + 4 student projects

11 academic staff retrained

Learning center build on digi.ba

Results reported in October 2026

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or EACEA. Neither the European Union nor the granting authority can be held responsible for them.

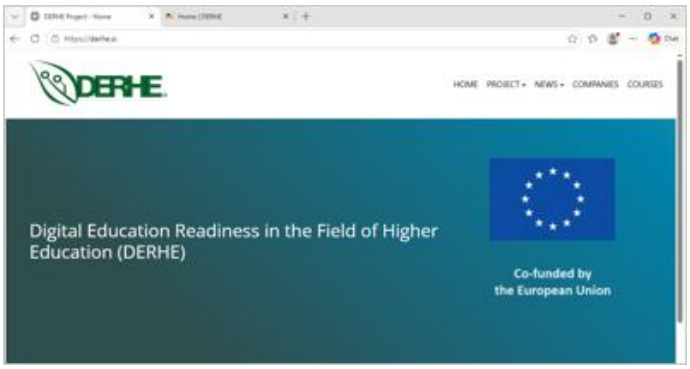
DIGITAL INFRASTRUCTURE

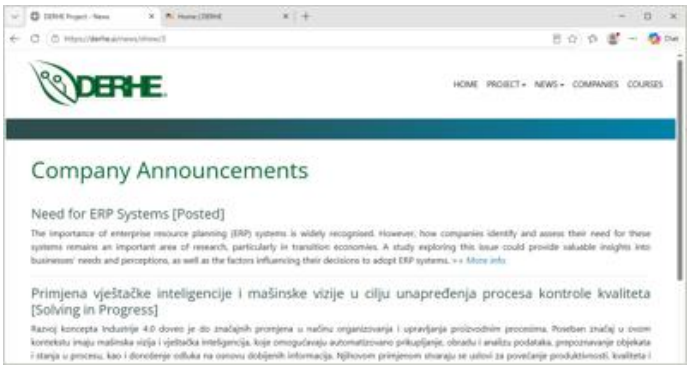
Connecting information, learning and industry

The DERHE portal, developed by UES, has strengthened UNSA's existing digital infrastructure, especially the Digi.Edu repository and the Learning Center at ETF. This approach supports the project's sustainability and strengthens the established project consortium, while enabling the development of a strong academy-industry-NGO network not only at the country level but also within the WB region and across the EU. It supports communication, learning, and collaboration beyond the project partnership by providing flexible, easy-to-use channels to share information and best practices.

INFORMATION PORTAL | derhe.si

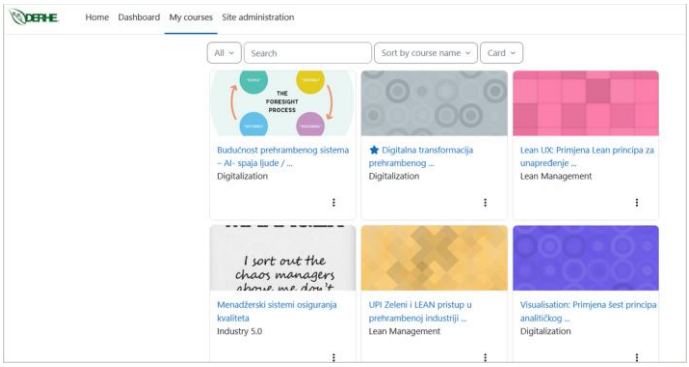
Project news, results, and a university-business module where companies can propose real challenges for students to address with academic mentoring.

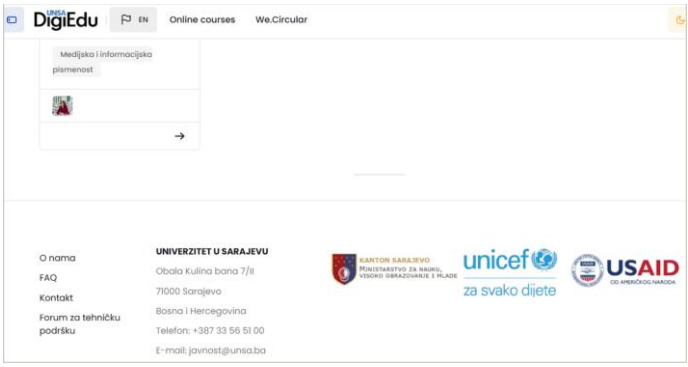




LEARNING PLATFORM | moodle.derhe.si

Moodle hosts materials for 12 specialised project courses and supports blended learning for students, staff and industry. Continued availability is planned beyond the project.





ACADEMIC STAFF DEVELOPMENT

Learning new approaches. Bringing them into teaching.



DERHE staff training at KU Leuven, Ghent | June 2024

Ghent and Ljubljana: digital education and project management

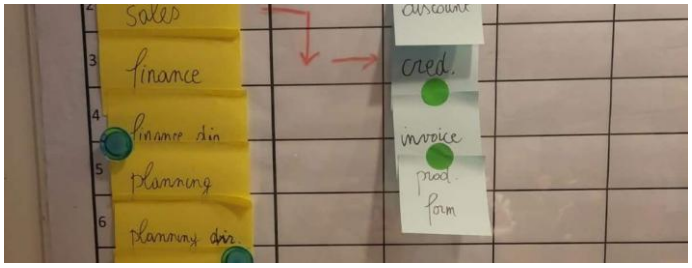
Training combined AR/VR demonstrations, artificial intelligence, project management and a LEAN Office workshop. Laboratory visits introduced participants to practical teaching and research environments.





Practical workshops at the University of Ljubljana | October 2024

The Ljubljana program covered simulation, 5S, ERP, robotics, energy efficiency and production improvement. Online training complemented the visits, helping staff prepare new learning materials and courses for students and industry.





LEARNING INFRASTRUCTURE

A center built for hands-on learning



The equipped Multifunctional Learning Center at the Faculty of Electrical Engineering

68.738 BAM Total equipment investment





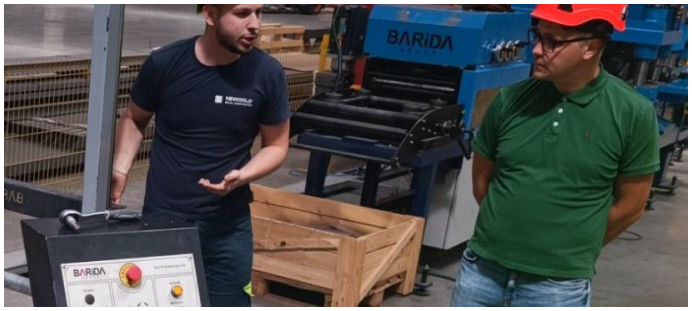


The center brings together computers, an interactive smart board, videoconferencing equipment, VR headsets, AR glasses, a 3D printer, and multimedia tools. This versatile technology supports student exercises, industry training, and laboratory work, and is used regularly in teaching and research.

Laboratory exercises cover Cognitive Robotics, Real-Time Systems Practicum, System-on-a-Chip Design, Biomedical Signals and Systems, and statistical methods in biomedicine, alongside industry courses.

COURSES AND COMMUNITY

Practical skills for students and the workplace



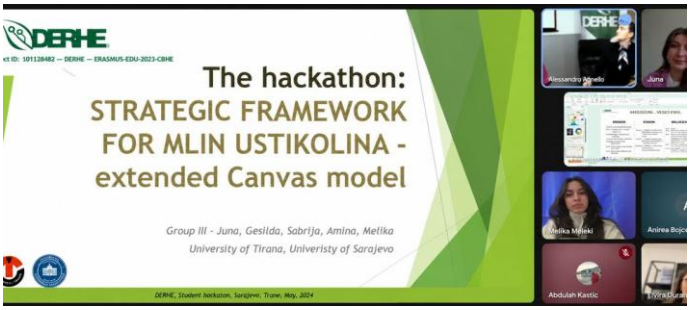


Ten companies: six IT and four agribusiness companies

UNSA developed six industry training courses. Only three of them attracted companies. Those courses are: Foresight: future of food system: AI connects people; Digital transformation; Green and Lean approach in food industry.

Over 100 days, ten blended trainings: Microwee Sarajevo – embedded systems; Global d.o.o. Sarajevo - industrial automation; PROSAFETY d.o.o. Sarajevo - embedded software and hardware systems; Navitas Engineering & Automation d.o.o. Sarajevo - the design, automation, protection, and control of electrical power systems; SYSTECH d.o.o. Sarajevo - custom hardware and software systems & electronic device design; NCMC d.o.o. Usora (NewCold Metal Construction) - design, manufacturing, and installation of steel structures; Association of Agriculture and Food Industry of Tuzla Canton – bringing together farmers & farmers' associations; Beekeepers association Nektar, Tuzla; Mlin Ustikolina Goražde; Farma Spreča, Kalesija – farm and biogas production.





Four enriched courses for students

Dedicated courses supported practical digital skills beyond the regular curriculum, combining online resources with hands-on activities. We organized a hackathon: three groups worked on a real industry problem. UNSA and TU students worked together to develop a Canvas business model for Mlin Ustikolina, an agribusiness company. The director of Mlin Ustikolina and Greens doo were impressed by the students' ideas and solutions.

STUDENT ACHIEVEMENTS

Turning knowledge into working solutions

> *When I think of our DERHE project, I think first of my colleagues and the productive, creative collaboration that enriched both our professional and personal lives. The project truly became a catalyst for change, driving the digital transformation of work and life in exactly the way we had hoped. Its results demonstrate how transdisciplinary and international collaboration can strengthen quality and harmonization across the global higher education landscape—a sector undergoing profound transformation.*

4 STUDENT PROJECTS

Vildan Kučević: Evaluation of sheep wool fertilizer as a sustainable source of nutrients for the production of red lettuce.

Said Karić: Integration of ESG principles in the business practice of Farma Spreča d.o.o. through analysis of the current situation and determination of guidelines for the future.

Elma Adibegović: Management of the elevator system using a programmable logic controller

Tajra Glamoč: Control of the synchronous motor through a programmable logic controller and CAN network

7 GRADUATION / MASTER'S THESES

International mentor (doc. dr Ilona Rac, University of Ljubljana) – Nejra Eljšan: comparative analysis of motives and practices of urban agriculture in the conditions of crisis and modern sustainable development – master's thesis

Minela Sultanović: Using FPGA and open source for characterizing and automating the acquisition of parameters of electronic components, through the example of a quartz oscillator – master's thesis.

Aldin Brdar: Simulation of SOC with PCIE peripherals and experimental validation of FPGA system – master's thesis.

Tarik Buljubašić: Automatic regulation of gas chlorine in the drainage system – master's thesis.

Burhan Ljubović: IEC 61850 communication standard with reference to cyber security in substation automation

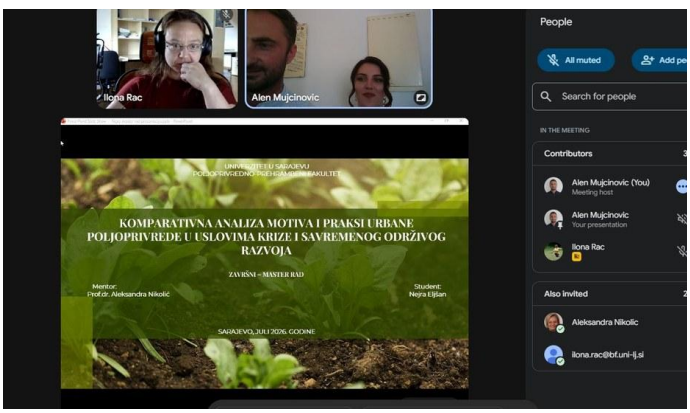
Nermina Hasičevic: Influence of different types of pelletized organic and NPK fertilizers on yield and quality of cabbage Brassico olerocea vor. Capitata – master's thesis.

Halima Kubat: Consumer attitudes towards food industry by-products (upcycled) – master's thesis

Staaba wool fertilizer – real problem



International mentoring doc. dr Ilona Rac, University Ljubljana



CURRICULUM AND SUSTAINABILITY

Making the results part visible for the community

Beyond the project: bringing disciplines, people, and ideas together. The UNSA team embraces a transdisciplinary approach, creating playful, hands-on learning experiences that inspire students, nurture positive emotional environments, and foster meaningful, lasting learning. Food offers a natural meeting point for disciplines—and a powerful way to improve quality of life. We aim to show that every consumer can make a difference: through mindful choices, commitment, and care, people can preserve heritage and lay the foundations for a brighter future. That's why UNSA's dissemination strategy puts students at the heart of practical research, building a vibrant network of engaged partners.

The strong network with other Erasmus projects

First Multi-payer event organized by UNSA – this was an opportunity to introduce DERHE together with Erasmus + projects MAGNET, HomoDigitalis, and projects focused on the professional development of staff, students, and community: Digi.Edu and TRAIN projects (https://www.unsa.ba/novosti/predstavljanje-erasmus-projekata-za-profesionalni-razvoj-akademskog-osoblja-na-univerzitetu); 20.09.2024

Second Multi-payer event organized by UNSA – this was an opportunity to introduce DERHE together with Erasmus + projects MAGNET, HomoDigitalis, and projects focused on the professional development of staff, students, and community: Digi.Edu and TRAIN projects (https://www.unsa.ba/novosti/na-univerzitetu-u-sarajevu-odrzan-drugi-multiplier-event-erasmus-projekta-homo-digitalis); 18.06.2025

Third Multiplayer Event – **DERHE Info Day: "Vision of the future: sustainability and resilience in focus";** 2.2.2026, Chamber of Commerce, FBiH (https://www.unsa.ba/en/novosti/derhe-info-day-vision-future-sustainability-and-resilience-focus)

Working with secondary school teachers and pupils

9. naučno-stručna konferencija INN&TECH and 4. Innovation Fair for secondary schools (21.01.2026) and Introductory Note in the INN&TECH Journal (https://inn-tech.ba/wp-content/uploads/2026/04/FINALNI-BROJ-INN-TECH-BROJ-6.pdf)

Working with technology parks – INTERA, Mostar

Conference - Digitization of the green economy: Aleksandra Nikolić, Alen Mujčinović, Dušanka Bošković: Technologically "enhanced" food value chain new and emerging solutions for current problems within the chain; 21.5.2025 (https://intera.ba/zavrsena-znanstveno-strucna-konferencija-digitalizacija-u-zelenoj-ekonomiji/)

HORIZON 2020: BauhoeseBites Project – presentation of students' research achievements

Eljšan, Nejra, Nikolić, Aleksandra, Mučinović, A.: Comparative analysis of motives and practices of urban agriculture in the conditions of crisis and modern sustainable development, Sarajevo Learning Lessons, 6.10.2026

Agriconference2026 – presentation of students' research achievements

Dajana Cvjetković, Aleksandra Nikolić, Alen Mujčinović: Beyond Knowledge: Food Literacy and Policy Priorities in Bosnia and Herzegovina; Aleksandra Nikoli, Said Karic, Alen Mujčinović, Azra Križevac: Turning routine compliance into value: a quality 5.0 maturity framework for food system transformation

Crossing the disciplines

Dissemination workshop „Sustainable heritage – sharing good practices"; Digital Technologies for Cultural Landscape, EU project Culture and Creativity for the Western Balkans; 12-13.10.2026 (DIGITAL TECHNOLOGIES FOR CULTURAL LANDSCAPES - DIGI.BA)







DERHE PARTNERSHIP

A shared commitment to digital education

CREATING PLAYFUL, HANDS-ON LEARNING EXPERIENCES THAT INSPIRE STUDENTS, NURTURE POSITIVE EMOTIONAL ENVIRONMENTS, AND FOSTER MEANINGFUL, LASTING LEARNING

Digital Education Readiness in the Field of Higher Education

Co-funded by the European Union

Stay connected

Project portal: derhe.si
Learning platform: moodle.derhe.si
Email: info@derhe.si | LinkedIn: DERHE

Project ID: 101128628 - DERHE - ERASMUS-EDU-2023-CBHE