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# Newsletter 5

## National Round Table in Celje Showcases Digital and Green Innovations in Manufacturing

The National Round Table brought together more than 100 participants from industry, academic, vocational training during the *Welding Technology Day* held at the Kongresbi Centre Celje in Slovenia. The event took place on 9 April 2025 and was co-organised by Welding Society Krško, the University of Maribor, the University of Ljubljana, the Faculty of Industrial Engineering Novo mesto, and Celjski sejem.

Discussions focused on how digitalisation and sustainability are transforming manufacturing, reflecting ANGIE's commitment to greener and more efficient industrial processes. Presentations covered topics such as automation, robotic welding, process control, safety, and sustainability in joining technologies.

Participants also took part in hands-on sessions featuring collaborative robots, scanning systems, and ultrasonic inspection tools, gaining practical insight into how digital solutions can enhance quality, safety, and environmental performance.





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## Deliberative Pedagogy for Environmental Education

On 16 October 2025, Babeş-Bolyai University (UBB) in Cluj-Napoca hosted a National Seminar titled *Deliberative Pedagogy in Teaching about the Environment* under the ANGIE Project, co-funded by the Erasmus+ Programme of the European Union.

The event brought together university fourteen faculty members interested in innovative and participatory teaching methods that foster student engagement in environmental issues. Discussions focused on how deliberative pedagogy can enhance critical thinking, dialogue, and civic responsibility in sustainability education. Participants learned how deliberative pedagogy encourages collaborative problem-solving and ethical reasoning, skills essential for addressing complex environmental challenges. By engaging students in dialogue and reflection, it helps translate abstract sustainability goals into informed, collective action.

Participants exchanged best practices and explored ways to integrate experiential and discussion-based approaches into university curricula.





## Producing Sustainability Through Education: Manufacturing and Environment

How can education help us live and work more sustainably? That question guided the first ANGIE Webinar in the series *Producing Sustainability through Education: Manufacturing and Environment*, held on 22 October 2025. More than 50 participants from universities, research institutions, and industry, including individuals from the WATERIC sectors, joined the session to explore how education can drive green transition.

Prof. Ionel-Dănuț Savu from the University of Craiova opened the session with presentation on the ANGIE Graduate Study Programme on the Transition to Green for a Sustainable Society, followed by Prof. Giuseppe Casalino from the Polytechnic University of Bari, who introduced participants to the fascinating world of human–robot collaboration in 3D printing. Prof. Inês da Fonseca Ascenso from the University of Lisbon, discussed the challenges and promise of plastic circularity, while Prof. Damjan Klobčar from the University of Ljubljana shared insights into sustainable joining processes.

The two-hour webinar session exemplified how the ANGIE Project creates spaces for knowledge exchange between academia and professionals, helping to make sustainability an everyday practice in both work and daily life.

The image consists of three vertically stacked screenshots of a video conference interface, likely Microsoft Teams, showing different presentations during the webinar:

- Top Screenshot:** A presentation titled "ANGIE's Webinar Series: Producing Sustainability through education". It features the ANGIE logo, the European Union flag, and the text "Webinar #1: Manufacturing and Environment". The presentation number is E-2023-1-RO01-KA220-HED-00916831 and the website is www.angie-project.eu. The background shows a green landscape with a sun icon.
- Middle Screenshot:** A presentation titled "Cobots in Industry". It includes a diagram of "Industrial human-robot interactions (HRI) in manufacturing" showing a human and a robot working together. The text explains that a cobot (collaborative robot) in 3D printing refers to a robotic system designed to work safely alongside humans to automate or assist parts of the 3D printing workflow. These cobots can enhance productivity, precision, and flexibility in additive manufacturing processes.
- Bottom Screenshot:** A presentation titled "Plastic Waste: Environmental Consequences". It features a slide with the text "Decomposition can take centuries." and "Plastic decomposition and incineration promote greenhouse gas emissions." There is also a photograph of a person's hand reaching towards a pile of plastic waste.

Each screenshot shows a participant list on the right side, indicating the presence of multiple speakers and attendees.