Uz navedene, prof. emer. Mencer obavljala je brojne druge dužnosti na razini Fakulteta, Sveučilišta, Hrvatske ali i na međunarodnoj razini, od kojih vrijedi izdvojiti: prodekanica FKIT-a za nastavu i znanstveni rad (1992. - 1994.), predsjednica Matičnog povjerenstva za kemijsko inženjerstvo, rudarstvo, metalurgiju, tekstilno inženjerstvo (1993. - 1997.), koordinatorica matičnih povjerenstava (1995. – 1996.), predsjednica Hrvatskog rektorskog zbora (2002. – 2003.), predsjednica Nacionalnog vijeća za visoko obrazovanje (2002. – 2006.), potpredsjednica (2004. i 2006.), odnosno predsjednica (2005.) Podunavske rektorske konferencije (Danube Rectors' Conference), članica Upravljačkog odbora Udruženja sveučilišta glavnih europskih gradova (UNICA, 2005. – 2009.), evaluatorica sveučilišta u programu Institutional Evaluation Programme Europskoga sveučilišnog udruženja (EUA) i članica grupe za evaluaciju statuta EUA (2005. - 2008.). Za cjelovitu informaciju čitatelja se upućuje na knjižicu "Helena Jasna Mencer" iz edicije Istaknuti profesori u nakladi FKIT-a (Zagreb, 2017.).

Za svoj rad prof. emer. Mencer odlikovana je Redom Danice Hrvatske s likom Ruđera Boškovića (1996.). Dobitnica je Nagrade Fran Bošnjaković Senata Sveučilišta u Zagrebu, za promicanje i razvitak tehničkih znanosti, posebice kemijskog inženjerstva te prijenos znanja i odgoj mladih stručnjaka na Sveučilištu u Zagrebu (1995.), Nagrade Franjo Hanaman FKIT-a Sveučilišta u Zagrebu, za promicanje imena Fakulteta (2013.) te Državne nagrade za znanost za životno djelo u području tehničkih znanosti za 2017.

Rad i postignuća prof. emer. Helene Jasne Mencer ostavila su trajan trag na njezinom Zavodu, Fakultetu i Sveučilištu. Ovaj tekst najmanje je što smo joj kao zahvalni nasljednici mogli dati.

Priredila J. Macan uz veliku pomoć M. Ivanković i M. Rogošića

## A. Šalić<sup>a\*</sup> i B. Zelić<sup>a,b</sup>

<sup>a</sup> University of Zagreb, Faculty of Chemical Engineering and Technology, Trg Marka Marulića 19, HR-10 000 Zagreb, Croatia <sup>b</sup> Department of Packaging, Recycling and Environmental Protection, University North, Trg dr. Žarka Dolinara 1, HR-48 000 Koprivnica, Croatia Bridging the Gap Between Biotechnology and Industry: Integrating Design Thinking and Flipped Learning (BIOTE(A)CH)



Project number: 2022-1-TR01-KA220-HED-000085597 Founding sources: European Union Programme: Erasmus+ Action Type:

KA220-HED – Cooperation partnerships in higher education **Project lump sum:** 250,000.00 €

The project entitled "Bridging the Gap Between Biotechnology and Industry: Integrating Design Thinking and Flipped Learning" (BIOTE(A)CH) is co-funded by the European Union under the Erasmus+ Action Type programme: KA220-HED-Collaborative Partnership in Higher Education. The project started on December 30, 2022 and will continue until December 29, 2024 (Fig. 1).

The project group consists of researchers from 5 countries and 7 institutions:

Applicant organisation

- Çanakkale Onsekiz Mart University, Turkey

Partner organisations

- University of Maribor, Slovenia
- Tuscia University, Italy

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- University of Zagreb, Croatia
- Mellis Education Technology, Turkey
- Democritus University of Thrace, Greece
- Glycogest, Turkey

The project aims to create a curriculum that will help students transfer easier from higher education to the labour market oriented towards agricultural biotechnology. By combining "design thinking" and "flipped learning" principles, students will be able to learn about the latest technological approaches in an active process. The main idea behind the project is to train students and equip them with sufficient knowledge and tools to face the gaps in the current market focused on agricultural biotechnology and environmental sustainability. During the learning process, the main focus will be on solving new challenges in the industry and overcoming the limitations of traditional approaches so that students have practical skills upon graduation.



Fig. 1 - Project (left) and project partners (right) logos

- helping students to explicitly link data and information to the knowledge areas, skills, and approaches needed for professional work
- equipping students to work in a world where technological innovation is the norm
- fostering students' self-awareness to improve their cross-cutting skills (self-directed learning, communication, teamwork, etc.)
- creating momentum and synergy between the university and industry representatives to invest in innovation and innovation thinking

The expected project results can be divided into four major groups. The main outcome of the project will be adequately equipped graduates to meet the needs of the industry. The second outcome includes the developed curriculum (Knowledge to Practise through Design Thinking), a lecturer's guide, success stories booklet, video tutorials. The third outcome is the stronger network that will be built at the national and international levels. This is one of the most effective ways to promote the exchange of ideas to maintain long-term relationships and mutual trust. Finally, the project will be a scientifically sound example of integrating "design thinking" and "flipped learning" into the teaching process, and academics (especially from the field of education) will be able to incorporate this project practise into their further research activities.

The project kick-off meeting was held at Çanakkale Onsekiz Mart University, Faculty of Education, Çanakkale, Turkey (Fig. 2). It was a busy, productive, and enjoyable two days during which numerous ideas were exchanged on how to successfully achieve the project goals ahead. Each project team introduced the institution/university they are from and what they are doing in their research, which will certainly hold promise for future collaborations. In addition to the business part, team members got to know each other better through a series of social meetings, visits to COMU University, the Troy Museum, and Uluova Farm.

As a project starting point, a creation and implementation of a survey was chosen. The survey was created and information was collected from more than 100 participants from industry and academia from five countries, providing information on challenges and gaps in food, environmental and agricultural biotechnology. The majority of participants emphasised that there is a gap in the transition between academia and industry and that the following issues should be addressed:



Fig. 2 - Project team members

- improving skills such as communication, teamwork, analytical skills, responsibility, innovativeness, positivism, independence, and resourcefulness;
- more field work and more collaboration with industry to address current problems and barriers;
- application of the principles of "Good Laboratory Practise" (GLP) and "Good Manufacturing Practise" (GMP);
- more examples in the learning process that relate to current practise and provide an overview of what can be expected in the future;
- more internships for students and more assignments in the form of projects.

All of the above provides a tailwind to the implementation of the project, so we hope to make a positive step towards bridging the existing gaps by the end of the two-year period.

For more information about the project visit project website https://www.bioteacheu.com and social media pages:

