Deep tech ecosystem for Manufacturing and the role of TLFs

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This presentation explores the deep tech ecosystem in manufacturing, emphasizing the importance of collaboration, innovation, and education in driving growth within the sector. It begins with an overview of deep tech and its components, discussing the key players in the ecosystem, such as industries, educational and research institutions, governments, and investors. The significance of innovation within the triple-helix model is examined, as well as collaboration between Regional Innovation System (RIS) countries and more developed European Union countries, informed by the EU innovation scorecard.

The presentation then delves into specific projects aimed at fostering innovation and competence development in manufacturing, with a focus on South-East Europe. The EIT Manufacturing HUB Croatia and its flagship project, the Manufacturing Innovation Challenge, are discussed as examples of initiatives aimed at boosting innovation in the region. The hybrid training course "CompetenSEE" and the project "Connect SEE" are highlighted as examples of initiatives that create state-of-the-art teaching and learning materials for the manufacturing sector and establish a network of Teaching and Learning Factories across South-East Europe. Furthermore, the lecture examines two projects demonstrating the triple-helix model's effectiveness in fostering innovation and collaboration. The development of a modular expert system for managing discrete production processes based on the application of Smart Factory principles and the creation of a high-efficiency solid fuel heating system from renewable energy sources using innovative technological processes are explored as examples of successful collaboration between industry, academia, and government, with the Faculty of Mechanical Engineering and Naval Architecture as a project partner.

Miro Hegedić received his Master and PhD in Industrial Engineering and Management at the University of Zagreb, Faculty of Mechanical Engineering and Naval Architecture (FMENA). He is currently working as assistant professor at the Department of Industrial Engineering at FMENA. His main research interests are production and project management, process optimization and innovation and entrepreneurship. He has been active member of several EU funded projects working on developing new innovative products. Currently he is leading several EU funded projects and is coordinator of the EIT Manufacturing HUB Croatia. He is the author or co-author of 34 publications in refereed journals and conference proceedings.