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Engineering Excellence for the Mobility Value Chain

The EU-funded Centres of Vocational Excellence (CoVE) project "EE4M - Engineering Excellence for the Mobility Value Chain" focuses on the growing need for education and training of engineers in the field of operations management (OM) in the value chain of the entire mobility sector - from raw materials to recycling. The project has been running for a year now and initial results from literature analyses and quantitative and qualitative empirical studies are already available. In addition, the annual project meeting took place at the end of September 2024 in Bruneck (ITA), where the researchers worked intensively on the current work packages.

Tasks and Results of the Current Work Packages

Work Package 2

Lead: Montanuniversität Leoben

Task: Development of national and international Centres of Vocational Excellence (CoVE)

Results: Establishment of four regional CoVEs and a European/international platform Ensuring cooperation and continuous quality control

Status: Ongoing

Work Package 3

Lead: National Technical University of Athens

Task: Identification of future requirements for education and training in operations management

Results: Systematic analysis of competency-based requirements for training and education in operations management

Status: Completed

Work Package 4

Lead: Free University of Bozen-Bolzano

Task: Analysis of specific requirements in logistics and supply management, product development and manufacturing, entrepreneurship, and industrial marketing management

Results: Deductive analysis to identify future competences in OM

Status: Ongoing

Work Package 5

Lead: Mondragon Goi Eskola Politeknika

Task: Analysis of current teaching and learning formats, development of pedagogical concepts for vocational education and training

Results: Development of modern teaching concepts with feedback mechanisms for high-quality training

Status: Ongoing



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SME 5.0

A Strategic Roadmap Towards the Next Level of Intelligent, Sustainable and Human-Centred SMEs

Making sense of data through Artificial Intelligence



Make SMEs more “green” and environmentally & socially sustainable



Create attractive, inclusive workplaces and leverage empowering technologies

Excerpt of Peer-Reviewed Articles in Journals and Conference Proceedings (2023-2024)

- Anders FF, Mewes A, Özmen S et al. (2024) Autonomous Transportation Systems in Manufacturing Enterprises: A Comprehensive Analysis of the State of the Art in Driverless Transport Systems
- Dissauer M, Einspieler B, Krauser N et al. (2024) Parcel Lockers as a Logistic Concept: A Systematic Review of Implementation Strategies and Outcomes
- Hoffelner M, Woschank M, Jöbstl L (2024) Sustainable Aspects of Intermodal Transport: A Systematic Literature Review on the Current State
- Kittichotsawat Y, Rauch E, Woschank M et al. (2023) Designing Product Supply Chain Strategy Using Business Model Canvas and Axiomatic Design to Improve Profitability
- Kopeinig J, Woschank M (2024) Application of Industry 4.0 Technologies for Transparency of Sustainability Data in Multi-tiered Manufacturing Supply Chains
- Kopeinig J, Woschank M, Olipp N (2024) Industry 4.0 Technologies and their Implications for Environmental Sustainability in the Manufacturing Industry
- Lou A, Schiemer N, Schmücker M et al. (2024) RFID-Technologies in Warehousing: State of the Art and Future Perspectives
- Miklautsch-Breznik P, Hoffelner M, Woschank M (2023) A Novel Approach to Identify Industrial Logistics Decarbonization Opportunities: Method Development and Preliminary Validation
- Olipp N, Woschank M, Kopeinig J (2024) Enablers, Barriers and Opportunities to Implement Circular Economy in Small and Medium-sized Enterprises: A Systematic Literature Review
- Pacher C, Woschank M, Zunk BM (2023) The Role of Competence Profiles in Industry 5.0-Related Vocational Education and Training: Exemplary Development of a Competence Profile for Industrial Logistics Engineering Education
- Pacher C, Woschank M, Zunk BM (2024) The Impact of Competence on Performance in Industrial Engineering and Management: Conceptualization of a Preliminary Research Model
- Tiwong S, Woschank M, Ramingwong S et al. (2022) Logistics Service Provider Lifecycle Model in Industry 4.0: A Review
- Woschank M (2022) Horizon MSCA Projektantrag "SME 5.0" erhält Förderzusage
- Woschank M, Dallasega P, König A et al. (2024) Potentials of Using Real-time Data to Increase the Update Frequency of Production Planning and Control Strategies in MTO: A Discrete Event Simulation Study
- Zunk BM, Woschank M, Pacher C et al. (2023) Profiling the Industrial Engineering and Management Discipline: Key Implications and Preliminary Empirical Evidence from Austria



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