

SLOG 4.0

Digital and green skills for boosting innovation
and sustainability of the logistics sector



PROJECT AIMS

The project links two frameworks: sustainability/green skills and 4.0 technologies/digital skills within the field of logistics and aims to adapt green and digital skills of students to the requirements of the industry 4.0.

**"TO INCREASE THE ADOPTION OF SUSTAINABLE AND DIGITAL PRACTICES
IN THE LOGISTICS SECTOR, SECTOR RESPONSIBLE FOR CREATING
SUBSTANTIAL COSTS FOR SOCIETY."**

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PRESENTATION ON...

Slog4.0 current developments

The final task in Work Package 2 (WP2) involved the creation of A2.5, which focused on formulating a **Curriculum for Sustainable Logistic 4.0**. Adhering to established design principles, project partners initiated a consideration of the structural framework of the study course, with an emphasis on facilitating the attainment of specific learning objectives by participants.

Collectively, the project partners determined that the Slog4.0 study course would be organized into **four** distinct **modules**:

*Module 1: **Logistics 4.0 in the Smart Society***

*Module 2: **Sustainability in Logistics 4.0***

*Module 3: **IoT: Adopting 4.0 for Green Logistics***

*Module 4: **Green Challenge***

The formulation of these modules provided a framework into which the partners integrated the content derived from the previously established design principles.



PRESENTATION ON...

Slog4.0 current developments

Recognizing diverse preferences among professionals in the field, research indicated that some individuals within the logistics sector sought to enhance their theoretical knowledge without necessarily engaging in practical problem-solving for other companies. This inclination was particularly evident among those already employed. Conversely, students, yet to enter a professional environment, expressed a desire to gain practical experience and actively contribute to the specific challenges faced by companies. To cater to both demographics, the partners devised a solution – the study course was bifurcated into two segments: a theoretical component and a practical component. The practical segment, encompassing Modules 1, 2, and 3, necessitates the completion of the theoretical component or Module 4. Modules 1, 2, and 3 collectively form an integrated theoretical foundation for approaching Module 4. Participants can then decide whether to conclude their training after acquiring theoretical knowledge or proceed to the practical component, involving the resolution of a company's green challenge.

The resulting curriculum not only incorporates the content derived from the Design Principles established in WPA2.4 but also includes additional elements such as module titles, ECTS (European Credit Transfer and Accumulation System) credits, training duration, course and learning outcomes, responsible individuals, study level, field of study, language of instruction, skills emphasized, methods for evaluating learning outcomes, assessment criteria, and an assessment scale.

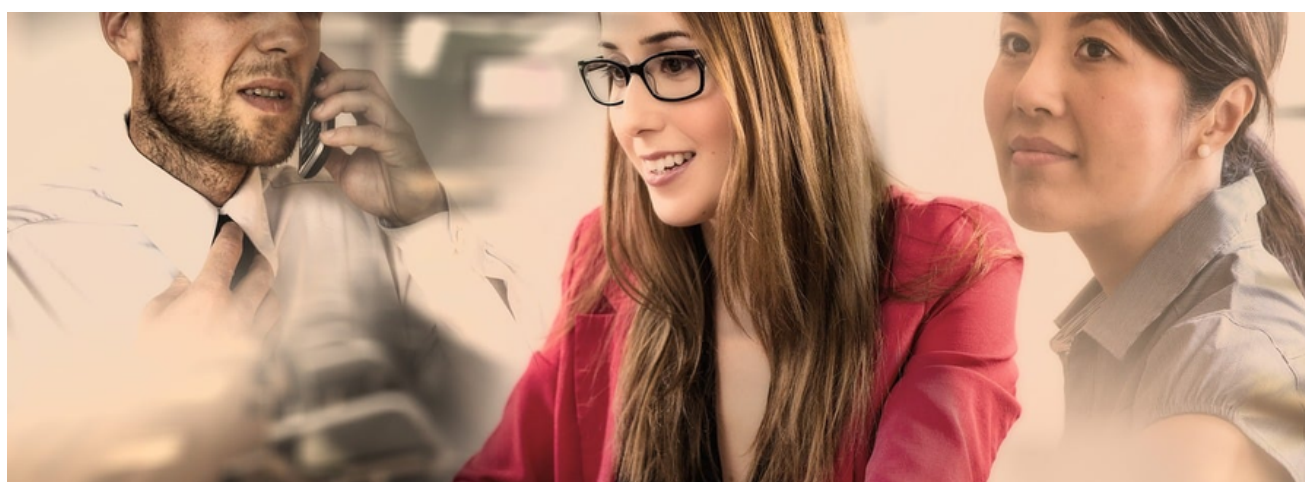
Following validation by non-academic partners in the business sector, the project group successfully concludes WP2 – an exhaustive analysis of training needs and the definition of training course design principles and curriculum. Project partners express satisfaction in participating in this developmental process, enhancing their competencies, gaining insight into prevailing trends, and addressing the challenges of contemporary society.

DID YOU KNOW...

Why it is important to incorporate sustainability issues into study programs?

Embedding sustainability issues into study programs is of paramount importance for a number of reasons. Firstly, the global challenges posed by environmental degradation, social inequities, and economic disparities necessitate an educational approach that equips students with the knowledge and skills to address these pressing issues. By integrating sustainability into study programs, educational institutions play a pivotal role in **cultivating a generation of professionals capable of devising effective solutions to multifaceted problems** that extend beyond disciplinary boundaries.

Furthermore, the relevance of sustainability education to real-world issues cannot be overstated. Students benefit from a curriculum that mirrors the complexities of contemporary challenges, providing them with **practical insights and a deeper understanding of the interconnected nature of environmental, social, and economic factors**. This approach ensures that **graduates are well-prepared to navigate the complexities of their future careers** with a **heightened awareness of the impact of their decisions on a global scale**.



DID YOU KNOW...

Why it is important to incorporate sustainability issues into study programs?

Beyond the individual level, there is a **growing demand from industries** for professionals who possess a robust understanding of sustainability issues. **Employers recognize the value of incorporating environmentally and socially responsible practices** into their operations, making graduates with sustainability education more attractive in the job market. This shift in industry priorities underscores the need for educational programs that produce graduates capable of contributing to sustainable and ethical business practices.

In addition to professional benefits, integrating sustainability into study programs fosters a **sense of ethical responsibility and global citizenship** among students. Education becomes a platform for instilling values that go beyond personal and professional realms, emphasizing the role of individuals in creating a more sustainable and equitable world. By incorporating sustainability principles, educational institutions contribute not only to the **development of skilled professionals** but also to the **cultivation of responsible and conscientious citizens** prepared to address the challenges of the 21st century.



SLOG4.0 DISSEMINATION EVENTS RECAP

Ergonomic Seminar in Porążyn, Poland (23-24 June 2023)

The Slog4.0 project made its national debut in Poland during the Ergonomic Seminar of the Poznan Branch of the Polish Ergonomics Society, held in June 2023, in Porążyn. Assoc. Prof. Beata Mrugalska, the presenter, introduced the project to 29 participants, primarily comprising individuals from academia, public organizations, and industry. The presentation focused on the project's objectives, its core components, and the outcomes of the Delphi study conducted on a national level. These results played a pivotal role in shaping the main modules and topics of the Slog 4.0 course. The proposed modules garnered significant interest within the Polish society, indicating a positive reception of the project's vision and goals.

The second part of the presentation delved into the social aspects of Logistics 4.0, shedding light on the often-overlooked dimensions of sustainability: environment, society, and economy. Notable improvements in companies' sustainability performance were highlighted, encompassing productivity, accuracy, air emissions, and supply chain visibility. The presentation emphasized the challenges faced by logistics companies in incorporating sustainability, citing high costs, legislative compliance, and client engagement difficulties. Emerging technologies such as 3D printers were identified as valuable tools for customizing products and streamlining implementation processes.



SLOG4.0 DISSEMINATION EVENTS RECAP

Seminar on Environmental Sustainability at the University of Aveiro, Portugal (6 July 2023)

In July 2023, the University of Aveiro organized a seminar on Environmental Sustainability, a debate on environment, competitiveness, and public agendas. Organized by Assoc. Professor, Elisabeth Pereira, and hosted at the Department of Economics, Management, Industrial Engineering, and Tourism, the hybrid event brought together participants from DEGEIT – UA, the Faculty of Arts and Humanities of the University of Coimbra, and two Brazilian universities – the Pontifical Catholic University of Rio de Janeiro and the São Paulo State University.

Central to the seminar were discussions on topics such as Sustainability (Circular Economy), Competitiveness, and the significance of developing sustainable logistics strategies within an ecosystem guided by effective public policies. The event provided a platform for insightful debates on the interconnectedness of environmental concerns, economic competitiveness, and the role of sustainable logistics in shaping public agendas. This international collaboration showcased a shared commitment to addressing global challenges through informed discourse and collaborative initiatives.



WHAT IS SLOG4.0?

Slog4.0 is a European project that aims to promote the uptake of eco-friendly and technologically advanced approaches within the logistics industry, a sector known for generating significant expenses for society, including greenhouse gas emissions and pollutants. For this purpose, it aims to contribute to the formation of a fresh cohort of proficient professionals for the logistics sector, equipped with a sustainability-focused mindset and a comprehensive skill set aligned with the principles of Industry 4.0.

PROJECT INFORMATION

Name: Sustainable Logistics4.0: Digital and green skills for boosting innovation and sustainability of the logistics sector

Number: KA220-HED-B12C4B93

Duration: 36 months

Funding: Erasmus+ Programme of the European Union, call "Cooperation partnerships in higher education"

PROJECT PARTNERS

The consortium includes 4 universities that believe in the need of proposing an innovative training offer in the field of logistic 4.0 by developing a new interdisciplinary curriculum, and 3 companies providing specialized and advanced services, selected upon the expected commitment proven by consolidated previous relations and their acknowledged proficiency.

The partners of the project are:

- ◆ Poznan University of Technology (Poland) - coordinator
- ◆ University of Aveiro (Portugal)
- ◆ University of Gaziantep (Turkey)
- ◆ University of Maribor (Slovenia)
- ◆ Valuedo srl (Italy)
- ◆ ECQA (Austria)
- ◆ Zerynth srl (Italy)



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