GOVERNMENT OF MALTA

Co-funded by the European Union

EDUWEAR - Engineering Educational Competence Development on Customisable Wearable Rehabilitation Devices

Newsletter

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EDUWEAR

Contents

03 **Introduction**

EDUWEAR addressing the growing need for interdisciplinary education in the the design and development of wearable technologies for rehabilitation.

04 **The Consortium**

The EDUWEAR Partners

06 **Kick-off**

The project's official launch in a transnational meeting held in Malta.

07 **Data Collection**

Focus group studies with experts from engineering, healthcare, and industry.

09 **Next Event**

This summer, EDUWEAR heads to Oulu, Finland, for an immersive learning experience

10 **Stay Connected**

Ways on how to follow our journey as we shape the future of engineering education.

Introduction

EDUWEAR is an ambitious, interdisciplinary project aimed at shaping the future of engineering education by developing a curriculum for the field of wearable rehabilitation devices. Co-funded by the Erasmus+ Programme of the European Union, Government of and user-centered design.

EDUWEAR focuses on equipping students with the skills, knowledge, and mindset needed to conceptualize, design, and prototype smart wearable technologies that support physical rehabilitation.

By combining hands-on learning, digital fabrication, and real-world problem-solving, EDUWEAR will encourage students to tackle healthcare challenges through creative and technical excellence.

Who We Are

EDUWEAR draws on the expertise of partners from the University of Malta, University of Oulu, University of Pisa, University of Strathclyde, and Nicomed Rehabilitation Centre, fostering a rich exchange of knowledge and perspectives.

Mission

To empower future engineers with the interdisciplinary skills, knowledge, and creative mindset needed to design and develop smart wearable devices for rehabilitation.

Vision

To become a leading model in engineering education for healthcare innovation - where technology, creativity, and empathy intersect to prepare a new generation of professionals capable of shaping the future of rehabilitation through wearable technologies.

Welcome to the EDUWEAR project's Newsletter!

The Consortium

The EDUWEAR project brings together a strong alliance of academic excellence:

Core Partners

University of Malta – Leading the project with expertise in engineering education and rehabilitation-focused innovation.

University of Pisa – Contributing in-depth knowledge in biomedical and industrial engineering.

University of Oulu – A pioneer in digital fabrication and wearable technologies, fostering hands-on learning.

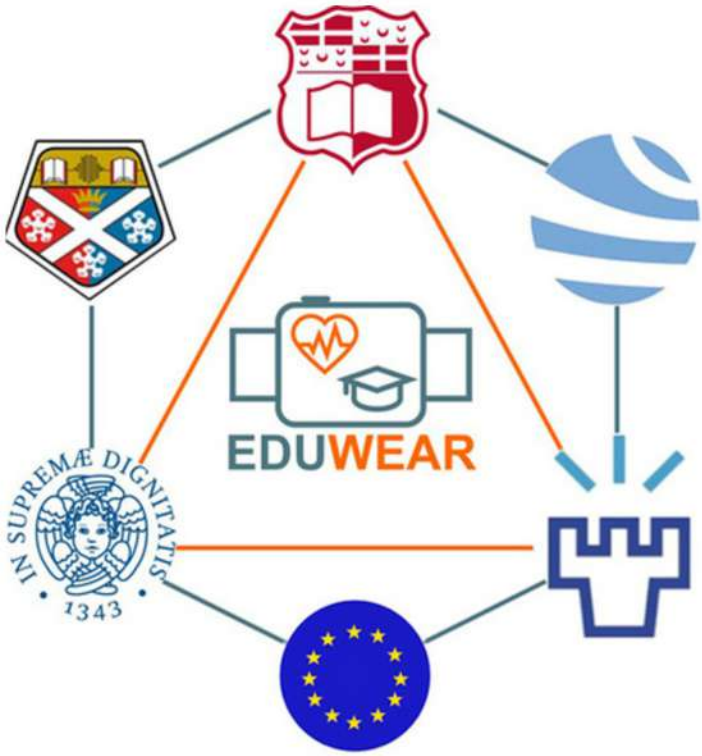
The EDUWEAR project is further strengthened by the expertise and collaboration of our associate partners:

Associated Partners

University of Strathclyde – Specializing in advanced technology and engineering education, supporting project innovation.

Nicomed - A leader in the healthcare and rehabilitation field, bringing invaluable industry insights and practical applications.

Make sure to subscribe to our mailing list – future newsletters will dive deeper into the expertise of each partner and team member!



Kick-off Meeting

Malta, 3rd-4th October, 2024

The EDUWEAR project officially launched with an inspiring and productive transnational kick-off meeting held at the University of Malta on the 3rd and 4th of October, 2024.

This gathering brought together representatives from all core partners (University of Pisa, University of Oulu, University of Malta) and associate partners (University of Strathclyde and Nicomed), and the meeting served as a crucial milestone, laying the groundwork for the project's direction and collaborative efforts.

Over one and a half packed days of discussion, the partners aligned on the project's overarching goals, namely, to shape a forward-thinking educational programme focused on engineering smart wearable devices for rehabilitation. The agenda covered the following key aspects:

1. Reviewing each work package's objectives and expected outcomes
2. Outlining the responsibilities of each work package
3. Brainstorming sessions on the protocol for the upcoming focus groups and survey studies, and planning the timeline
4. Establishing communication protocols between partners and project administrative matters
5. Outlining lessons learnt from past projects focused on smart wearable devices for rehabilitation.
6. Refining the project logo and discussions on the website, other communication & dissemination actions

A major focus was placed on WP2 – where the initial user needs and skills gap analysis would be carried out through interdisciplinary focus groups. Beyond the formal agenda, the meeting also offered a valuable opportunity for team building and collaboration. The synergy and shared vision among the consortium members were evident and energising, laying a strong foundation for the exciting work ahead.

Data Collection

Together, we're creating the foundation for tomorrow's solutions.

Understanding the gaps in education is the first step toward innovation. In the EDUWEAR project, tailored data collection tools such as focus groups, semi-structured interviews and surveys will be used to gather critical insights from students and educators. These findings will help the team members design dynamic learning programs focused on developing wearable rehabilitation devices.

Focus Groups

Key Objective

The primary objective of the focus group was to explore and identify the key competencies that future engineers will need in this rapidly evolving field. As wearable technology continues to expand its influence in healthcare and rehabilitation, equipping students with the necessary knowledge and practical skills is more critical than ever.

Through engaging discussions and collaborative exchanges, participants shared their insights on curriculum development, essential skills needed, how to integrate cross-disciplinary expertise to better prepare students and more.

By gathering expert perspectives from educators, the team is working to develop a robust framework that ensures students gain relevant, future-ready competencies.

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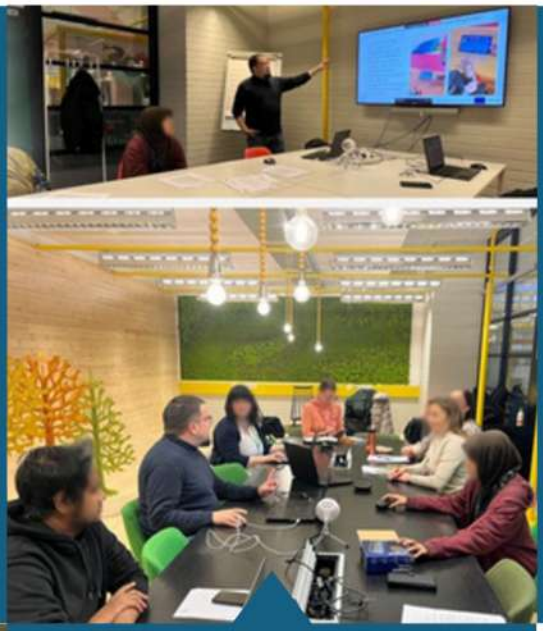
Malta Focus Group

8th January 2025

3 x Engineers
4 x H ealth Care Scientists



02

Pisa Focus Group

15th January 2025

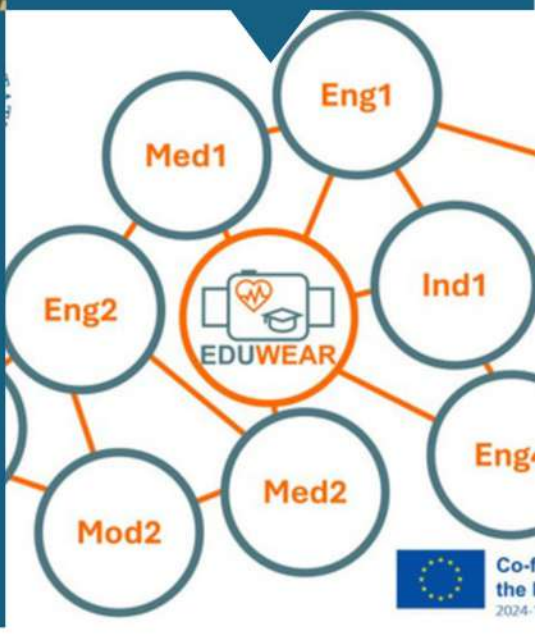
X Engineers
Y Health Care Scientists
Z Industry

03

Oulu Focus Group

20th January 2025

X Engineers
Y Health Care Scientists
Z Industry



Summer Training Course

We're thrilled to announce the upcoming EDUWEAR Summer Course, an exciting, immersive learning experience set to take place between **2-6 June, 2025**. Held at the cutting-edge **Super Fab Lab** at the **University of Oulu**, the course blends digital fabrication, engineering design, and interactive prototyping with a focus on real-world healthcare challenges, designed to empower participants with the skills and mindset needed to design and develop smart wearable technologies for rehabilitation.

Participants will be able to engage in a series of practical activities designed to bridge the gap between engineering education and real-world application.

What to expact?

- **02 Jun** — Fab Lab fundamentals
- **03 Jun** — Practical Development Sessions
- **04 Jun** — Familiarisation with Existing Wearable Devices
- **05 Jun** — Project
- **06 Jun** — Presentations

Between the first and second day of the summer course, participants will be introduced to the tools available in the Fab Lab, safety principles and more. Students will be using a variatey of software and equipment related to 3D printing, laser cutting, and electronics protytping tools, and learn how to integrate sensors and other smart materials.

On Day 3, participants will be engaging with existing examples of bespoke wearbles in healthcare and will be introduced to common core components, functions and design challenges.

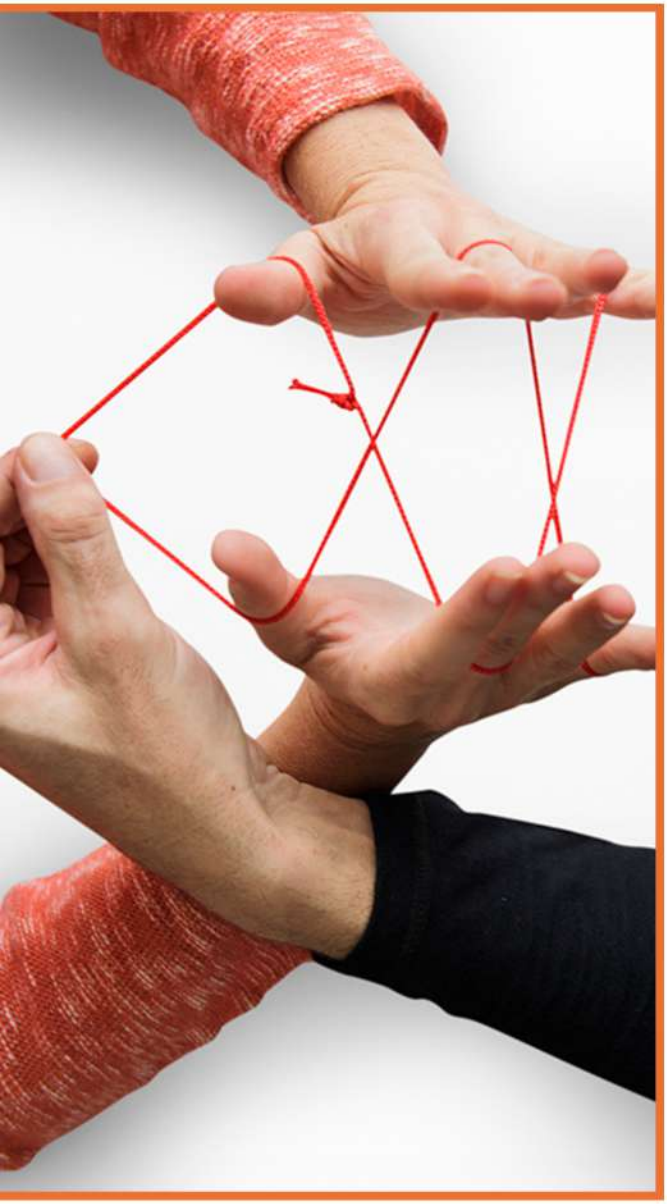
Participants will have two days to work on a mini-team project where they will be collaborating in interdisciplinary teams tasked to tackle real-world rehabilitation problems. During this project, teams will be asked to design, prototype and test their own wearble solution.

Post-course, the research team will conduct a thorough competency assessment based on the gaps identified earlier in the project. Feedback will be used to refine the course and evaluate its impact on students' technical growth.

Stay Connected

Curious to learn more about our journey, upcoming events, and exciting developments?

Visit our website, and follow us on Facebook, LinkedIn, and Instagram for behind-the-scenes content, partner highlights, project updates, and snapshots from our workshops and summer courses. Whether you're a student, educator, or industry professional — there's something for everyone to discover!



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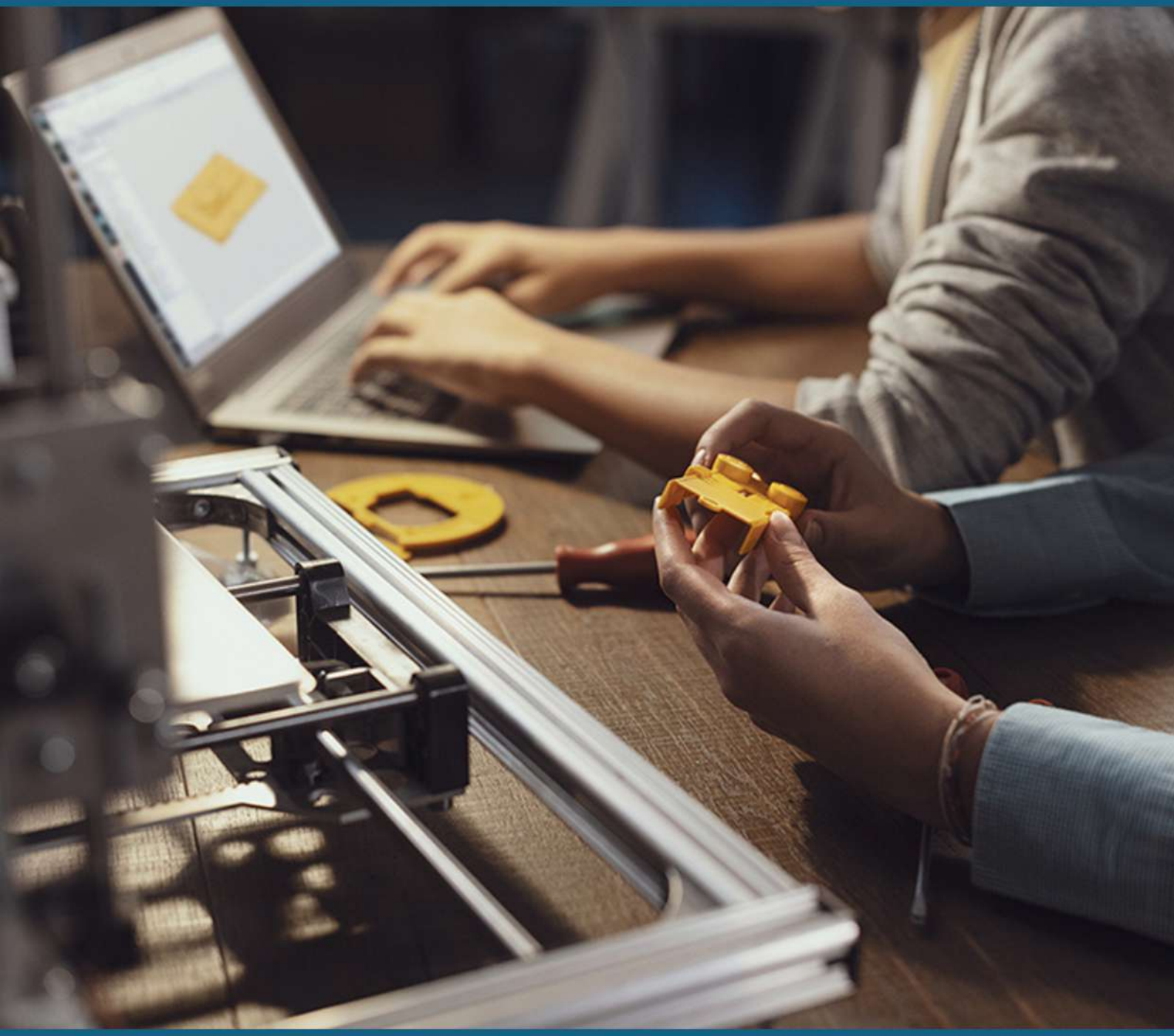

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