SHINE Project

Strategic Higher-Education Initiative for Networking and Engineering

An Erasmus+ KA220-HED initiative reimagining how higher education institutions teach, innovate, and connect — across borders, disciplines, and digital frontiers.

project–shine.eu

SHINE project

Strategic Higher–education Initiative for Networking and Engineering: Innovative Concurrent Engineering...

Project Snapshot

A three-year, pan-European initiative funded under the Erasmus+ programme, designed to drive meaningful change in higher education teaching and learning.

36
Month Duration
October 2024 – September 2027

€400K
Total Budget
Erasmus+ KA220-HED co-funded

8
Partner Organisations
Across 6 European countries

2027
Project End Year
With lasting, scalable outcomes

A Strong Multidisciplinary European Consortium

SHINE brings together a carefully selected group of universities, research institutions, and industry clusters spanning Central, Eastern, and Southern Europe — combining academic excellence with real-world expertise.

Project Leader

Politechnika Gdańska
Gdańsk University of Technology, Poland

Consortium Partners

- ASOCIATIA TRANSILVANIA IT — Romania
- Institute of Entrepreneurship Development (iED) — Greece
- Ionian University — Greece
- NiCAT Cluster — Serbia
- UNIVERSITATEA TEHNICA CLUJ-NAPOCA — Romania
- University of Niš — Serbia
- Veliko Turnovo University St St Cyril and Methodius — Bulgaria

Project Overview

SHINE addresses a critical gap in European higher education: the need to align teaching methodologies with the demands of a rapidly evolving, technology-driven world. The project focuses on three interconnected pillars.
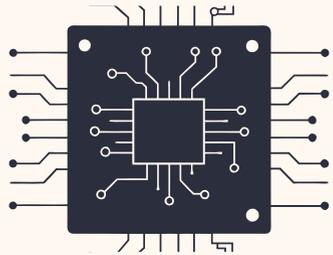
Technology

Harnessing digital tools, metaverse environments, and innovation hubs to modernise the teaching and learning experience in HEIs.

Pedagogy

Developing evidence-based, interdisciplinary teaching methodologies that integrate STEM, STEAM, and pedagogical psychology.

Real–World Application

Bridging the gap between academia and industry through applied learning, ensuring graduates are equipped for professional challenges.

Project Objectives

SHINE is built around four core objectives that together create a coherent framework for transforming higher education teaching across partner institutions and beyond.

1

Develop the U-TEAM Methodology

Design and validate an innovative, interdisciplinary teaching methodology that integrates STEM/STEAM with pedagogical psychology for real impact.

2

Improve Learning Processes in HEIs

Equip higher education institutions with practical tools, digital environments, and curriculum frameworks to enhance student outcomes.

3

Strengthen Cross-Disciplinary Integration

Unite technical and social sciences within a single pedagogical framework, fostering critical thinking, creativity, and applied problem-solving.

4

Ensure Transferability

Design outputs that are scalable and adaptable beyond HEIs — with clear pathways for adoption in vocational education and adult learning contexts.

The U–TEAM Methodology

At the heart of SHINE lies the **U-TEAM Methodology** — a pioneering interdisciplinary teaching framework that integrates technical sciences, social sciences, and applied pedagogy into a unified learning experience.

Interdisciplinary Approach

Seamlessly combining STEM, STEAM, and social science perspectives to reflect the complexity of real-world challenges.

Innovation & Critical Thinking

Embedding creative problem-solving and analytical reasoning at every stage of the learning journey.

Applied Learning

Grounding theory in practice through project-based activities, live challenges, and industry-connected experiences.

Main Components

SHINE's delivery is structured around four interconnected components, each designed to create tangible, lasting change within partner institutions and the broader European education ecosystem.

iHUBs — Innovation Hubs

Physical and virtual spaces within partner institutions where students, educators, and industry professionals collaborate on innovation-driven projects and challenges.

Metaverse Learning Platform

A cutting-edge digital environment enabling immersive, interactive learning experiences that transcend geographical and institutional boundaries.

Curriculum Adaptation

Systematic integration of U-TEAM principles into existing HEI curricula, ensuring sustainable embedding of new methodologies across partner universities.

Pilot Course Implementation

Real-world testing of developed courses across partner institutions, generating evidence of effectiveness and enabling iterative improvement before wider rollout.

Work Packages

The project is structured into five clearly defined work packages, each with dedicated responsibilities, milestones, and deliverables — ensuring coordinated progress across the full consortium.

WP1
Project Management

WP2
Planning & Design

WP3
Development & Production

WP4
Implementation & Evaluation

WP5
Dissemination & Promotion

Needs Analysis & Benchmarking

A comprehensive, evidence-based needs analysis and benchmarking exercise has been completed across all partner countries — forming the solid foundation upon which the entire SHINE methodology will be built.

What Was Assessed

- Skills gaps and competency shortfalls among graduates
- Educational needs at institutional and national levels
- Structural and organisational challenges within HEIs
- Existing teaching methodologies across partner countries
- Best practices and emerging innovations across Europe

Why It Matters

This milestone ensures that every component of the SHINE project is grounded in real, identified need — not assumption. The analysis provides a rich evidence base that directly informs the design of the U-TEAM methodology, the iHUBs, and the digital learning platform.

🗒️ ✨ A key milestone ensuring the project's relevance, rigour, and long-term impact across diverse European educational contexts.

Needs Analysis & Benchmarking Outcomes

Our comprehensive needs analysis and benchmarking exercise yielded crucial insights, forming the bedrock for the SHINE methodology.

European Methods

Educational Needs

Skills Gaps

Benchmarked Practices

Institutional Challenges
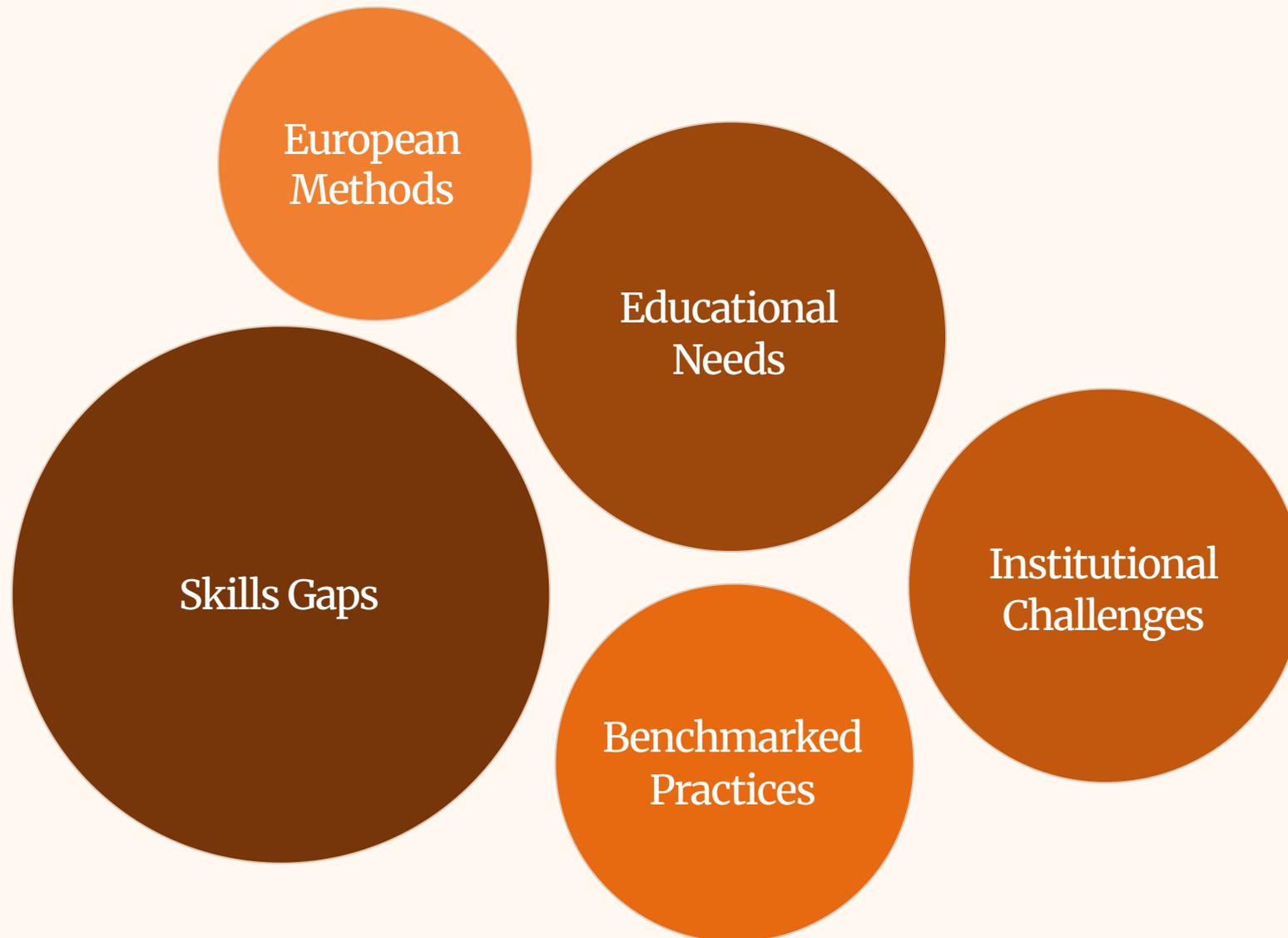
This rigorous process ensures that every aspect of the SHINE project is meticulously aligned with real-world needs and validated against the most effective practices in European higher education.

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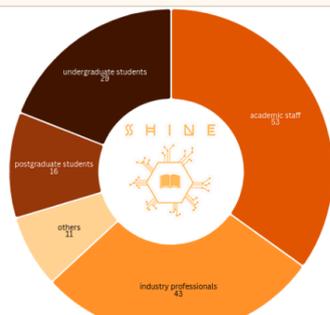
SHINE Need Assessment

Check out this Presentation designed by iED Projects.

Next Steps

With the needs analysis complete, SHINE now moves into its core development phase — translating evidence and design into tangible educational tools, environments, and experiences.

Development of the U-TEAM Methodology

Finalising the interdisciplinary teaching framework informed by the needs analysis findings and best practices identified across partner countries.

Design of Pilot Courses

Creating the first generation of SHINE-aligned courses, ready for delivery within partner institutions during the implementation phase.

Integration into HEI Curricula

Embedding U-TEAM principles and pilot courses into the formal academic programmes of partner universities, ensuring institutional sustainability.

Deployment of iHUBs & Digital Platform

Establishing innovation hubs at partner sites and launching the metaverse learning platform to enable immersive, cross-border educational experiences.

Visibility & Communication

SHINE is committed to transparency, open knowledge-sharing, and broad engagement with stakeholders throughout the project lifecycle. Our communication channels ensure that results reach educators, policymakers, and practitioners across Europe.

🌐 Project Website

Explore project news, deliverables, partner profiles, and open resources at the official SHINE website.

project-shine.eu

💼 LinkedIn

Follow SHINE on LinkedIn for regular updates on milestones, events, and dissemination activities reaching a wider professional audience.

SHINE on LinkedIn

📣 Stakeholder Engagement

Actively engaging HEIs, industry partners, policymakers, and VET providers to broaden impact and support long-term sustainability of project results.

Expected Impact

SHINE is designed not just to produce outputs, but to create lasting, scalable change in how higher education is delivered and experienced across Europe.

Innovation in Higher Education Teaching

Introducing evidence-based, interdisciplinary methodologies that modernise how STEM and social science subjects are taught in HEIs.

Improved Learning Experiences

Enabling more engaging, relevant, and effective learning through digital tools, immersive environments, and applied project work.

Stronger Academia–Industry Connection

Building durable bridges between universities and industry through iHUBs, ensuring graduates are genuinely prepared for professional life.

Scalable & Transferable Results

All SHINE outputs are designed for replication across other European HEIs, VET providers, and adult education settings — maximising the return on Erasmus+ investment.

Thank You for Your Attention

SHINE is more than a project — it is a commitment to building a better, more connected, and more innovative European higher education landscape. We welcome your questions, ideas, and collaboration.

🌐 Website	💼 LinkedIn
project-shine.eu	**SHINE on LinkedIn**
📋 Programme	
Erasmus+ KA220-HED 2024–2027	
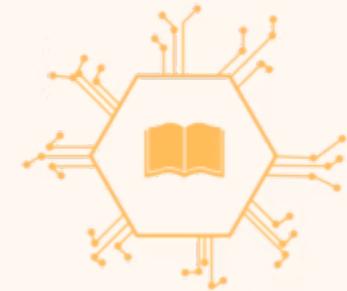
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SHINE