

DELIVERABLE REPORT

Erasmus+ Project	
Project Name:	Joint University challenge-based Minor Program for future generation of innovative entrepreneurs
Project Acronym	JUMP
Project start date:	01 September 2024
Deliverable	
Title:	Intermediary summary report on the development and pilot implementation of min. 8 blended Micro-modules and 2 CBL projects focusing on innovation and entrepreneurship skills in Pilot 1 and recommendations for Pilot 2
Deliverable No.:	D3.1
Type of Deliverable	R: Document, report
Authors:	Lydia Bédouret, INSA Toulouse Contributions from all partners institutions
Level of completion (0 – 100)	100% = fully achieved
Delivery date (due):	28 February 2026
Due deliverable (actual):	28 February 2026
Dissemination level	PU = Public, fully open access, e.g. web

Partners

Università degli Studi di Trento (UniTrento)
 Linköping University (LiU)
 Łódź University of Technology (TUL)
 Institut National des Sciences Appliquées (INSA Toulouse)



Revision History

Grant Agreement Number	2024-1-IT02-KA220-HED-000256021	Acronym: JUMP
Deliverables	Intermediary summary report on the development and pilot implementation of min. 8 blended Micro-modules and 2 CBL projects focusing on innovation and entrepreneurship skills in Pilot 1 and recommendations for Pilot 2 (M17)	
Work Package	3	
Date of Delivery	Contractual: 31/01/2026	Actual: 28/02/2026

Nature	Report	Dissemination Level	Public
Lead Beneficiary	University of Trento		
Responsible Authors	Lydia Bédouret, INSA Toulouse	Email:	l_bedour@insa-toulouse.fr
		Phone:	
Contributors	INSA Toulouse; TUL; LiU; UniTrento		
Reviewer	Maurizio Marchese, UniTrento; Anelia Grigorova, UniTrento		
Approved By	Maurizio Marchese, UniTrento		
Key Words	Pilot, Implementation, Micro-Modules, CBL projects		

REVISION HISTORY

REVISION HISTORY			
Rev.	Date	Description	Status (Draft/Final)
1.0	30/01/2026	First draft	Draft
2.0	24/02/2026	Second draft	Draft
3.0	28/02/2026	Final version	Final

CONTENTS

1.	Executive Summary	4
2.	Introduction	5
2.1.	Positioning of WP3 within JUMP	5
2.2.	Objectives of D3.1	6
2.3.	Scope of Pilot 1	6
2.4.	Methodological Approach	7
2.4.1.	Data Sources	7
2.4.2.	Monitoring Instruments	8
3.	Action A3.1 - Development of the Pilot Portfolio	8
3.1.	From Existing ELOs to a Structured Portfolio	8
3.2.	Pilot 1A: Improvement Criteria and Quality Alignment	9
3.3.	Pilot 1B: Development of New Micro-Modules and CBL Projects	10
3.4.	Summary of A3.1	11
4.	Action A3.2 - Pilot Implementation	12
4.1.	Pilot 1 Implementation Overview	12
4.1.1.	ELOs Offer Distribution Across Pilot 1	12
4.1.2.	Academic and non-academic staff involvement	13
4.1.3.	Pilot 1 Portfolio Attractiveness: intermediary analysis	16
4.1.4.	Cross-institutional participation	19
4.1.5.	Calendar and recruitment timing as participation drivers	21
4.1.6.	Completion outcomes – Intermediary results	23
4.2.	Pilot 1 Portfolio Analysis	26
4.2.1.	Pilot 1A	26
4.2.2.	Pilot 1B	30
4.3.	Students and Teachers Feedbacks	35
4.3.1.	Pilot 1 Feedback Collection Approach	35
4.3.2.	Dimensions Captured by Institutional Course Evaluation Tools	35
4.3.3.	Complementary Qualitative Feedback from Teaching Teams	36
4.3.4.	Co-Design of a Shared Educational Experience Evaluation Framework	37
4.4.	Summary of A3.2	38
5.	Recommendations for Pilot 2	39

1. Executive Summary

This deliverable (D3.1) provides an intermediary synthesis of Work Package 3 (WP3) within the Erasmus+ JUMP project, focusing on the development and pilot implementation of blended Micro-Modules and Challenge-Based Learning (CBL) projects aiming at developing Innovation and Entrepreneurship skills amongst students during the first experimentation phase (Pilot 1).

WP3 operationalises the overarching framework defined in WP2 by translating it into concrete Educational Learning Opportunities (ELOs) to be integrated in the JUMP learning pathway and by producing empirical evidence to inform the progressive structuring of the distributed European Minor in responsible innovation and entrepreneurship.

Pilot 1 was designed as an iterative two-step process. Pilot 1A primarily served as a calibration stage, improving and testing existing Micro-Modules while consolidating shared quality and alignment criteria. Pilot 1B then expanded the portfolio through newly developed blended Micro-Modules and the scaling of CBL formats, strengthening the Minor's challenge-driven orientation and its connection to real-world contexts through increased stakeholders' involvement.

Across both phases, implementation exceeded all contractual thresholds for WP3 milestones indicators (M3.1–M3.3), confirming the consortium's capacity to design, deliver and monitor a substantial cross-institution educational offer. In total, Pilot 1 implemented 24 ELOs, combining Micro-Modules and CBL projects, with delivery distributed across all partner institutions. Staff mobilisation also scaled significantly, with a broad contributor base and an increasing role for mentoring in Pilot 1B, signalling a maturation of delivery configurations and the emergence of collaboration potential for future co-design and co-teaching. Participation volumes were strong, reaching 397 enrolments and already surpassing cumulative WP3 participation KPIs for both Micro-Modules and CBL. Pilot 1 also showed improving alignment with the intended JUMP target cohort over time, while maintaining openness to non-JUMP learners, particularly in CBL formats.

Pilot 1 provides actionable insights for Pilot 2 integration. While cross-institution access is operationally feasible and already evidenced through measurable intra-consortium enrolment flows, completion outcomes indicate that cross-enrolled learners are at higher risk of non-completion, underscoring the need for stronger recognition guidance, onboarding, and learner support when scaling pathway-based participation. In addition, recruitment timing and calendar variability appear to influence participation and operational workload, suggesting that earlier publication, clearer enrolment conventions, and lightweight late-onboarding protocols would improve both uptake and delivery efficiency.

Finally, the report highlights that feedback collection in Pilot 1 was exploratory and heterogeneous across institutions. To support evidence-informed integration of the JUMP Minor, Pilot 2 will require a more systematic and comparable approach, notably through a shared Educational Experience Evaluation (EEE) framework that is designed to capture pathway-level dimensions such as coherence, progression, integration and perceived support. The EEE framework was co-created under WP3 with contributions from all partners and is described in Section 4.3.4. of this document.

Overall, Pilot 1 confirms the viability and attractiveness of the WP3 educational offer and clarifies the key levers for Pilot 2: pathway design, cross-institution success conditions, structured collaboration, systematic ecosystem engagement, and robust shared evaluation.

2. Introduction

2.1. Positioning of WP3 within JUMP

The *Joint University Challenge-Based Minor Program (JUMP)* aims to design and implement a distributed, cross-disciplinary and challenge-based European Minor in responsible innovation and entrepreneurship (I&E). The project is structured around five interdependent Work Packages, each contributing to a complementary dimension of the Minor's development.

Within this architecture:

- **WP2** defines the overarching learning outcomes (OLOs) and structural framework of the distributed Minor;
- **WP3** is responsible for the design, development and pilot implementation of blended Micro-Modules and Challenge-Based Learning (CBL) projects;
- **WP4** facilitates intersectoral activities, including CBL internships and theses;
- **WP1** and **WP5** ensure project management, quality assurance, dissemination and exploitation.

WP3 therefore occupies an operational position. It translates the conceptual framework developed in WP2 into concrete educational experiences (Educational Learning Opportunities – ELOs) and generates empirical evidence that will inform the integration phase of the Minor and the development of guidelines and toolkits in later stages of the project.

According to the Grant Agreement, WP3 aims to advance innovation and entrepreneurship skills among engineering and Innovation Management Master's students through the coordinated development and piloting of blended Micro-Modules and CBL projects. It is structured around three actions:

- **A3.1** – Design, develop and improve blended Micro-Modules and CBL projects
- **A3.2** – Pilot blended Micro-Modules and CBL projects
- **A3.3** – Develop guidelines and a methodological toolkit for implementation and integration into a structured CBL Minor

The present deliverable focuses primarily on Actions A3.1 and A3.2 during the first experimentation phase (Pilot 1).

2.2. Objectives of D3.1

Deliverable D3.1 corresponds to Month M17 and is defined as an “Intermediary summary report on the development and pilot implementation of a minimum of eight blended Micro-Modules and two CBL projects focusing on innovation and entrepreneurship skills in Pilot 1 and recommendations for Pilot 2”.

The objectives of this deliverable are fourfold:

- To document the development process of existing and newly created Micro-Modules and CBL projects under Action A3.1;
- To provide an overview of their pilot implementation across partner institutions under Action A3.2;
- To analyse intermediary quantitative and qualitative results, including student participation and staff involvement in relation to the WP3 Key Performance Indicators (KPIs);
- To formulate evidence-based recommendations for Pilot 2, to strengthen cross-institutional integration and contribute to the structuring of the JUMP Minor.

Beyond compliance reporting, D3.1 captures the first empirical phase of experimentation and supports the transition from a distributed collection of ELOs toward a more integrated and pedagogically aligned European educational pathway.

2.3. Scope of Pilot 1

Pilot 1 was conceived as an exploratory and iterative experimentation phase to prepare the full implementation of the integrated Minor. It was divided into two successive stages aligned with the contractual milestones of WP3.

Pilot 1A – Improvement and Testing of Existing Micro-Modules (Milestone M3.1)

Pilot 1A focused on the improvement and alignment of at least four existing Micro-Modules already implemented within the partner institutions. The objectives of this phase were:

- to analyse the contribution of existing modules to innovation and entrepreneurship skills,
- to align them more explicitly with the JUMP vision and emerging overarching learning outcomes,
- to strengthen their blended learning dimension where necessary,
- and to test them within the framework of JUMP coordination and monitoring processes.

This phase allowed the consortium to build upon established pedagogical practices while progressively defining shared quality and alignment criteria.

Pilot 1B – Development and Implementation of New Blended Micro-Modules and CBL Projects (Milestones M3.2 and M3.3)

Building on the results of Pilot 1A, Pilot 1B focused on:

- the development of at least four new blended Micro-Modules,
- the design and implementation of at least two CBL projects,
- and the achievement of a minimum portfolio of eight blended Micro-Modules and two CBL projects implemented across the consortium by the end of Pilot 1.

Particular attention was given to interdisciplinarity, responsible innovation, entrepreneurial mindset development, and intercultural collaboration.

2.4. Methodological Approach

The implementation and analysis of Pilot 1 relied on a structured methodological framework combining portfolio documentation, quantitative monitoring and qualitative feedback mechanisms.

2.4.1. Data Sources

The primary data sources used for this deliverable include:

- ELO Monitoring Data collected across partner institutions, documenting each Micro-Module and CBL project implemented during Pilot 1 (format, institution, academic year, implementation status);
- Institutional participation records detailing student enrolment and staff involvement;

Each partner institution described its ELOs using a common documentation template to ensure comparability across the consortium (see Appendix 1). This structured documentation included a detailed description of the learning opportunity, its positioning within the JUMP framework, its contribution to innovation and entrepreneurship skills, and a qualitative self-evaluation at the end of the teaching period.

2.4.2 Monitoring Instruments

Monitoring of Pilot 1 combined:

- **Institutional quality assurance systems**, which provided course-level student feedback;
- **A shared WP3 monitoring framework**, including portfolio mapping and alignment tools;
- **The initial co-design of an Educational Experience Evaluation (EEE) tool.**

This multi-layered methodological approach ensures that D3.1 is based not only on descriptive reporting but also on structured monitoring and reflective analysis, supporting evidence-based recommendations for the next phase of the project.

3. Action A3.1 - Development of the Pilot Portfolio

3.1. From Existing ELOs to a Structured Portfolio

Action A3.1 focuses on the pedagogical design and development of blended Micro-Modules and CBL projects forming the foundational layer of the future JUMP Minor. All JUMP partner institutions are members of the European Consortium of Innovative Universities (ECIU), which promotes flexible, challenge-based and student-centred learning through formats such as Micro-Modules and Challenges. These Educational Learning Opportunities (ELOs) aim to develop interdisciplinary and innovation-oriented competences by engaging students with real-world problems.

Within this ecosystem, JUMP represents an experimental initiative to structure and integrate these learning opportunities into a coherent and complementary pathway in contrast with the current fragmented ECIU offer. Pilot 1 was designed as a progressive and iterative process, combining the improvement of existing ELOs with the development of new ones. This approach aimed to ensure both continuity with current ECIU best practices inside partners institutions and the construction of the JUMP pathway.

By working within the ECIU pedagogical framework, WP3 ensured alignment with established quality criteria regarding challenge-based learning, blended formats, international collaboration and competence-oriented design. The improvement process therefore did not merely consist of minor adjustments but involved a structured alignment of existing modules with explicit innovation and entrepreneurship (I&E) learning objectives; responsible innovation perspectives; strengthened blended learning components; enhanced assessment coherence; and, where relevant, reinforced intercultural and interdisciplinary dimensions. The Pilot 1A thus functioned as a calibration stage. It enabled partners to define shared quality expectations and to clarify what would constitute the emerging JUMP pedagogical identity.

To support this dynamic, WP3 established a coordination framework combining regular exchanges, shared monitoring processes, and collaborative activities across partner institutions. Continuous coordination was ensured through regular progress meetings organised within the broader JUMP project governance. These meetings enabled partners to present interim analyses, share feedback, and collectively formulate recommendations, supporting the iterative refinement of the educational offer and reinforcing alignment between institutional strategies and project objectives.

To support monitoring and evidence-based decision-making, WP3 also developed and implemented a set of shared tools for documenting and analysing the ELO offer. Each partner institution was responsible for describing its activities using a common template (Appendix 1). This framework included a detailed pedagogical description of each ELO, a self-positioning matrix aligned with JUMP skills, and a qualitative self-evaluation conducted at the end of each teaching period. This structured and data-informed approach ensured consistency in the monitoring of Pilot 1 and provided a common basis for analysis across the consortium.

3.2. Pilot 1A: Improvement Criteria and Quality Alignment

The objective of Pilot 1A was to test and improve at least four existing Micro-Modules. The selection of these modules was based on the recommendations of WP2 (D2.1.1) and on the mapping of existing educational offers across partner institutions. This phase aimed to analyse how these Micro-Modules contributed to the development of innovation and entrepreneurship skills, to assess their alignment with the JUMP vision, and to identify potential areas for improvement in terms of content, pedagogical design, and blended learning formats.

Within the WP3 coordination framework, collaborative workshops played a key role in fostering pedagogical alignment and co-design. The first online strategic workshop was organised in collaboration with WP2 on March 17th, 2025. This workshop aimed to align partners on the objectives and methodology of Pilot 1, define the key characteristics of the JUMP pathway, launch of Pilot 1A, prepare for Pilot 1B, and explicit selection criteria for the ELOs.

During this workshop, partners collectively reflected on the specificity and added value of the JUMP programme. A shared vision emerged, leading to the definition of a common pedagogical orientation, referred to as the “JUMP DNA”, which includes entrepreneurship mindset, responsible innovation, interdisciplinarity, and interculturality. This framework provided a shared reference point to guide the design and selection of ELOs across institutions. It also emphasised the importance of ensuring a strong articulation between Micro-Modules, CBL Challenges, and internships or theses, through a strategy of bundling ELOs, as well as the need to adopt an iterative design process enabling the continuous improvement and updating of the educational offer.

The discussion also addressed the structuring of the pathway in terms of workload and ECTS allocation. A preliminary framework was proposed, combining several Micro-Modules with one or more CBL Challenges, and potentially complemented by internships or thesis projects. This structure aimed to ensure both flexibility and coherence within the student learning experience.

An important issue raised during the workshop concerned student engagement and completion of the full pathway. Preliminary observations on the field indicated that only a limited number of students tend to follow the complete sequence of suggested ELOs bundles.

In this perspective, partners explored possible incentives to enhance student motivation and commitment. Among the options discussed, the development of a certification of JUMP pathway was identified as a promising mechanism to increase the attractiveness and perceived value of JUMP.

As a result, the enhancement of existing Micro-Modules was guided by a set of collectively shared improvement criteria, discussed during WP3 coordination meetings and workshops. These included:

- Making innovation and entrepreneurship skills more explicit in learning outcomes;
- Strengthening the articulation between challenge-based activities and theoretical inputs through the bundling of ELOs strategy;
- Increasing the blended dimension (combination of synchronous, asynchronous and collaborative formats and short European mobilities);
- Ensuring coherence between intended learning outcomes, learning activities and assessment methods;
- Enhancing international and intercultural collaboration opportunities.

Alignment with the overarching learning outcomes developed in WP2 was actively pursued through iterative discussions and shared documentation. This qualitative alignment approach was appropriate for a first experimentation phase and allowed flexibility while promoting convergence.

Pilot 1A therefore constituted a structured pedagogical consolidation process rather than a simple continuation of pre-existing courses.

3.3. Pilot 1B: Development of New Micro-Modules and CBL Projects

Pilot 1B focused on the development and testing of at least four new blended Micro-Modules and two new CBL projects. Building on the results of Pilot 1A, this phase aimed to address identified gaps and complementarities in the educational offer. Particular attention was given

to strengthening the coherence between Micro-Modules and CBL projects (also referred to as Challenges), as well as to reinforcing interdisciplinarity and collaboration across partner institutions.

The design of the new learning opportunities was guided by the shared JUMP DNA which includes entrepreneurship mindset, responsible innovation, interdisciplinarity, and interculturality. Importantly, the development of new CBL projects marked a qualitative shift toward stronger challenge-driven pedagogical design, reinforcing the Minor's identity around real-world problem solving and interdisciplinary collaboration. This common framework supported the alignment of pedagogical objectives and maintained institutional flexibility and diversity of educational approaches across partners for Pilot 1B.

Alongside the online workshop mentioned before, three face-to-face workshops for teachers were organized at INSA Toulouse in January 2026, enabling teaching teams to present their Pilot 1B ELOs projects, identify complementarities and potential synergies, and explore opportunities for co-teaching and joint development of learning activities. Discussions focused on strengthening interdisciplinarity, enhancing the blended learning dimension of the courses, and fostering closer collaboration across institutions.

These workshops also provided a space to explore mutualisation of student cohorts, the sharing of pedagogical resources, and the potential use of shared infrastructures across partner institutions. The discussions went beyond the identification of complementarities between individual ELOs and led to a deeper reflection on joint curriculum development and cross-institutional collaboration. Partners identified opportunities to co-design and co-deliver learning activities based on their respective areas of expertise, including combining existing Micro-Modules and Challenges, sharing teaching responsibilities, and creating joint learning pathways supported by blended and hybrid formats.

As a result, these exchanges contributed to the identification of emerging thematic I&E clusters, such as Smart Manufacturing, Green Innovation, and Responsible Entrepreneurship. These clusters now provide a structuring framework for strengthening cross-institutional collaboration and for designing more integrated learning pathways in Pilot 2.

3.4. Summary of A3.1

To sum up, A3.1 achieved three structural outcomes:

- Quality calibration of existing Micro-Modules within the JUMP vision;
- Portfolio expansion through development of new blended Micro-Modules and CBL projects;
- Emergence of a teaching community sharing a pedagogical identity, grounded in innovation, responsibility, interdisciplinarity and blended challenge-based learning.

This structuration phase presentation laid the foundations for the pilot implementation analyses detailed in the following section.

4. Action A3.2 - Pilot Implementation

4.1. Pilot 1 Implementation Overview

4.1.1. ELOs Offer Distribution Across Pilot 1

Pilot 1 outputs exceeded all contractual thresholds defined for WP3 (M3.1–M3.3). For clarity and traceability, Table 1 summarises each milestone indicator using a 'Required vs Achieved' logic.

Table 1. WP3 contractual milestones indicators – Pilot 1 compliance.

Milestone	Indicator	Required	Achieved	Evidence
M3.1	Existing Micro-Modules improved and ready (Pilot 1A)	4	9	P1A portfolio (MM)
M3.2	NEW blended Micro-Modules ready (Pilot 1B)	4	8	P1B portfolio (new MM)
M3.2	CBL projects ready (Pilot 1B)	2	5	P1B portfolio (CBL)
M3.3	Blended Micro-Modules implemented (end of Pilot 1)	8	17	P1A+P1B (MM)
M3.3	CBL projects implemented (end of Pilot 1)	2	6	P1A+P1B (CBL)

To contextualise compliance, Table 2 provides an overview of the implemented portfolio and its evolution between Pilot 1A and Pilot 1B. The data show an overall expansion of the offer (24 ELOs implemented), a relative stabilisation of the number of Micro-Modules, and a strong increase in CBL projects and newly created ELOs in Pilot 1B. This shift indicates the consortium's move from improving pre-existing modules toward implementing more challenge-driven learning environments.

Table 2. Portfolio overview and evolution between Pilot 1A and Pilot 1B.

Indicator	Pilot 1A	Pilot 1B	Total Pilot 1
Total ELOs implemented	10	14	24
Micro-Modules (MM)	9	8	17
CBL projects (Challenges)	1	5	6
Newly created ELOs	0	9	9
ELOs involving external stakeholders	3	9	12

In addition to portfolio growth, the implementation remains distributed across partners. Table 3 details each institution's contribution across Pilot 1A and Pilot 1B, showing balanced engagement and shared responsibility for delivery.

Table 3. Institutional contribution to implemented ELOs.

Institution	Pilot 1A	Pilot 1B	Total ELOs	Share
INSA Toulouse	3	4	7	29%
University of Trento (UNITN)	3	4	7	29%
Lodz University of Technology (TUL)	2	4	6	25%
Linköping University (LiU)	3	1	4	17%
Total	10	14	24	100%

4.1.2. Academic and non-academic staff involvement

Across Pilot 1, a total of 33 unique contributors participated in the delivery of WP3 learning opportunities (Appendix 2). This exceeds the WP3 KPI requiring the involvement of at least 16 staff members. In addition to responsible teachers, Pilot 1B introduced a clear mentoring dimension, with 19 unique mentors supporting pedagogical delivery (see Table 4)

Table 4. Pilot 1 Contributors involvement totals.

Indicator	Count
Unique staff (responsible teachers + mentors)	33
Unique responsible teachers	21
Unique mentors (Pilot 1B only)	19
Individuals acting as both responsible and mentor	7

A subset of contributors played multiple roles. Seven individuals participated both as responsible teacher and mentor across the pilot.

Staff involvement (Table 5) increased substantially between Pilot 1A and Pilot 1B. Pilot 1A relied on responsible teachers only (13 unique contributors), while Pilot 1B mobilised a broader contributor base (27 unique contributors) and introduced mentoring support (19 unique mentors).

Table 5. Pilot 1 Contributors involvement by phase.

Phase	ELOs	Unique responsible teachers	Unique mentors	Unique staff (all)
1A	10	13	0	13
1B	14	15	19	27

Pilot 1 also shows continuity across phases (Table 6). Seven contributors participated in both Pilot 1A and Pilot 1B, while Pilot 1B introduced 20 new contributors compared to Pilot 1A, reflecting portfolio expansion and increased team-based delivery.

Table 6. Staff continuity between Pilot 1A and Pilot 1B.

Indicator	Count
Staff involved in both phases (1A & 1B)	7
New staff in Pilot 1B (not in 1A)	20

Staff involvement (Table 7) varies across partners, both in terms of unique contributors and in the balance between responsible teachers and mentors. The University of Trento (UNITN) and

INSA Toulouse show the largest number of unique contributors overall, consistent with the size and intensity of their Pilot 1B offers.

Table 7. Contributors by institution and phase.

Phase	INSA Toulouse	LiU	TUL	UNITN
1A	4	3	3	3
1B	9	2	6	10

A role-based perspective (Table 8) highlights different delivery configurations. For example, UNITN reports a larger pool of mentors in Pilot 1B, while the Lodz University of Technology (TUL) shows strong internalisation of roles (several contributors appear both as responsible and mentor).

Table 8. Role-based breakdown of contributors by institution.

Institution	Unique responsible teachers	Unique mentors (Pilot 1B only)	Unique staff (all)
INSA Toulouse	7	4	11
UNITN	5	8	12
TUL	6	6	6
LiU	3	1	4

The size of teaching teams per ELO (Table 9) provides an operational proxy for delivery complexity. In Pilot 1A, ELOs were typically delivered by a single responsible teacher (median team size = 1). In Pilot 1B, the median team size increased to 2, with some ELOs involving up to 5 contributors, which indicates higher-intensity and more collaborative delivery settings.

In addition, Pilot 1 shows collaboration capacity for cross-partner integration: co-design was already implemented by 2 contributors during Pilot 1, and a broader group of 9 responsible teachers expressed willingness to engage in co-design for Pilot 2 (with one contributor both having co-designed in Pilot 1 and planning to continue), providing a concrete basis to scale collaborative development in the next phase.

Table 9. Teaching team size per ELO.

Phase	ELOs	Total_team_positions	Median_team_size	Min_team_size	Max_team_size
1A	10	13	1	1	2
1B	14	31	2	1	5

4.1.3. Pilot 1 Portfolio Attractiveness: intermediary analysis

This section analyses student participation across Pilot 1 (Pilot 1A and Pilot 1B). It consolidates results for Pilot 1A and aggregates intermediary results for Pilot 1B regarding participation volumes, affiliation to JUMP, distribution by learning format (Micro-Modules vs CBL projects), institutional distribution (provider and home affiliation), cross-institutional participation patterns, completion outcomes, and selected inclusion indicators (gender and country of citizenship) (Appendix 3). During Pilot 1B, some ELOs delivered in the fall semester had final outcomes still under administrative consolidation at the time this intermediary report was written. For clarity and to avoid premature interpretation, the analyses below are restricted to ELOs which profile information has been fully documented. ELOs with partial student profile information are excluded from the calculations and will be consolidated in the final project report. Excluded ELOs are Ditch it or pitch it (TUL, offered in Pilot 1B); Second Life, First Choice; Futureproof Tourism and Soft Skills & AI (UNITN, offered in Pilot 1B). The excluded ELOs in the current analysis will be included in the final summary report on the development and pilot implementation of blended Micro-modules and CBL projects due in month 29.

WP3 defines cumulative participation KPIs over two cohorts (Pilot1 and Pilot2): at least 80 students in Micro-Modules and 40 students in CBL projects. When comparing these targets to the participation observed in Pilot 1 alone, both thresholds are already achieved (see Table 10).

Table 10. Participation KPIs – comparison between targets and Pilot 1 achievements.

KPI	KPI target	Achieved in Pilot 1	Status
Students in Micro-Modules	80	274	Achieved
Students in CBL projects	40	123	Achieved

Across Pilot 1, a total of 397 (274+123) participants were enrolled (192 in Pilot 1A and 205 in Pilot 1B). Among them, 237 participants (60%) were affiliated to JUMP partners, with a higher proportion in Pilot 1B (67%) than in Pilot 1A (52%), see Table 11. This evolution suggests an increasing alignment between the implemented offer and the targeted JUMP cohort, while maintaining openness to non-JUMP learners (typically Erasmus+ students, mainly, but not only, from other ECIU University partners)

Table 11. Overall participation and JUMP affiliation.

Indicator	Pilot 1A	Pilot 1B	Total
Total participants	192	205	397
JUMP-affiliated participants	99	138	237
Share of JUMP-affiliated participants (%)	52%	67%	60%

Gender distribution (Table 12) indicates an imbalance that increases in Pilot 1B. Across the pilot, 249 participants are men (63%) and 148 are women (37%). In Pilot 1A, participation is more balanced (45% women), while in Pilot 1B the share of women decreases to 28%. This pattern should be monitored and addressed in Pilot 2 through targeted outreach and communication, and by reviewing whether certain themes/formats disproportionately attract or exclude specific groups.

Table 12. Gender distribution by pilot phase.

Gender	Pilot 1A (n, %)	Pilot 1B (n, %)	Total (n, %)
Women	90 (46.9%)	58 (28.3%)	148 (37.3%)
Men	102 (53.1%)	147 (71.7%)	249 (62.7%)

In terms of international diversity, 38 countries are represented. The distribution is naturally influenced by the geographical location and networks of the consortium partners. France, Poland, Lithuania, Sweden and Italy account for the largest shares (see Table 13).

Table 13. Top 10 countries of citizenship.

Country	Participants
France	98
Poland	62
Lithuania	47
Sweden	37
Italy	34
Finland	25
Germany	13
Spain	11
Portugal	10
Netherlands	7

Participation can also be analysed through learning format as in Table 14. Across Pilot 1, 274 enrolments concerned Micro-Modules and 123 concerned CBL projects.

Table 14. Participation by learning format and pilot phase.

Format	Pilot 1A	Pilot 1B	Total
Micro-Modules	152	122	274
CBL projects	40	83	123
Total participants	192	205	397

The JUMP affiliation profile (Table 15) gives interesting information regarding formats attractiveness: Micro-Modules attract a higher proportion of JUMP-affiliated learners (180 out of 274; 66%), whereas CBL projects have a larger share of non-JUMP learners (66 out of 123; 54%). This difference may reflect that some CBL projects are more attractive beyond the consortium's target group, and/or that participation in CBL is influenced by institutional calendars and recruitment channels.

Table 15. JUMP affiliation by learning format.

Format	Other	JUMP	Total	Share JUMP (%)
Micro-Modules	94	180	274	66%
CBL projects	66	57	123	46%

From the provider perspective (institution coordinating the education or training), participation is distributed across all partners. INSA Toulouse accounts for 145 participants (37% of Pilot 1), followed by TUL (108; 27%), University of Linköping (LiU) (90; 23%) and UNITN (54; 14%). Pilot 1A is predominantly delivered by TUL and LiU in terms of participation volume, whereas Pilot 1B shows a strong increase in INSA participation, consistent with the expansion of the Pilot 1B portfolio.

Table 16. Participation by provider institution and pilot phase.

Provider institution	Pilot 1A	Pilot 1B	Total	Share (%)
INSA Toulouse	47	98	145	37%
UniTrento	19	35	54	14%
TUL	67	41	108	27%
LiU	59	31	90	23%

4.1.4. Cross-institutional participation

Participation patterns, collected in Table 17, also reveal the degree of openness and the feasibility of cross-institutional enrolment. Overall, 235 participants (59%) are affiliated to one of the consortium institutions (INSA Toulouse, UNITN, TUL, LiU), while 162 participants (41%) are affiliated to external institutions.

Among consortium-affiliated participants, 34 (15%) enrolled in an ELO offered by another consortium partner (home \neq provider). The majority (201; 86%) enrolled in ELOs offered by their home institution, corresponding to a cross-enrolment rate of 14.5%.

Table 17. Incoming/outgoing balance of cross-enrolments within the consortium.

	Incoming (from other consortium HEIs)	Outgoing (to other consortium HEIs)	Net flow (incoming - outgoing)	Total consortium participants (home)	Cross- enrolment rate (outgoing/ho me) %
INSA Toulouse	23	5	18	77	7%
UniTrento	0	12	-12	61	20%
TUL	3	14	-11	61	23%
LiU	8	3	5	36	8%

Mobility balance (incoming vs outgoing) helps characterise whether Pilot 1 produced a balanced network. As a result, the cross-institutional flows are not evenly distributed. The largest observed flows are from TUL and UNITN toward INSA Toulouse, and from INSA Toulouse toward LiU (see Table 18).

Table 18. Cross-institutional enrolments matrix (home → provider).

Home \ Provider	INSA Toulouse	LiU	TUL	UniTrento
INSA Toulouse	0	5	0	0
LiU	2	0	1	0
TUL	11	3	0	0
UniTrento	10	0	2	0

These flows likely reflect thematic attractiveness and the timing/visibility of specific ELOs. They confirm the operational feasibility of virtual or blended mobility. However, they also underline the need to reinforce structured pathways in Pilot 2 to increase the share of intentional cross-institutional enrolments.

4.1.5. Calendar and recruitment timing as participation drivers

Application and start dates recorded enable a descriptive analysis of timing indicators as potential drivers of participation. At ELO level, three timing measures were derived:

- Call duration: the length of the application window (application end – application start), reflecting the time available for potential learners to notice the opportunity, assess feasibility, and register.
- Lead time: the anticipation between the opening of the call and the beginning of the learning experience (course beginning – application start), reflecting the degree to which recruitment is launched early enough to fit institutional calendars and learners' planning horizons.
- End-to-begin gap: the time between application closure and course start (course beginning – application end). This value can occasionally be negative. In Pilot 1, negative gaps indicate situations where the application end date was adjusted after initial publication, for instance, to support cohort formation or accommodate late registrations, sometimes overlapping with the start of activities. When such extensions occur, they can introduce additional coordination needs for teaching teams (e.g., late onboarding, access rights, and adaptations to initial learning activities).

Overall, the timing indicators suggest that recruitment and delivery calendars vary substantially across ELOs. ELOs that are announced earlier and/or keep applications open longer tend to be among those with higher participation volumes.

To further describe participation patterns, ELOs were grouped by the month in which the call started (see Table 19). A contrast emerges between ELOs whose call started in July–August and those launched in other months. ELOs with a summer call start (Jul–Aug) show higher typical participation ELOs launched in other months.

The summer-start group presents a near-zero end-to-begin gap on average (–0.40 days), suggesting that some offers relied on very tight transitions between enrolment and launch, and/or that application deadlines were adjusted close to (or into) the start of activities to support cohort formation.

Table 19. Participation patterns by call timing group.

Call timing group	ELOs (n)	Avg participants per ELO	Median participants per ELO	Avg call duration (days)	Avg gap end→begin (days)
Summer call start (Jul–Aug)	5	27.80	22	71.20	-0.40
Other months	16	20.88	15.50	87.69	12.94

In contrast, ELOs launched in other months show a more clearly positive end-to-begin gap (12.94 days), consistent with a more classical sequence where enrolment closes before delivery begins and onboarding can be prepared in advance.

Table 20. Distribution of end-to-begin gap categories.

End-to-begin gap category	Interpretation	ELOs (n)	Typical participation (median)
Negative (deadline overlaps start)	Deadline adjusted/extended close to or into start; onboarding must absorb late enrolments	4	28.5
1–7 days	Tight transition; limited buffer for onboarding	3	9
8–30 days	More standard sequencing; buffer for onboarding & access provisioning	14	14

Interestingly, the average call duration is not longer for summer-start calls (71.20 days) than for calls launched in other months (87.69 days). This suggests that the seasonal difference in participation is unlikely to be explained by application-window length alone. A plausible interpretation is that summer-start recruitment may benefit from calendar alignment (planning for the next semester, availability for coordination) and visibility when institutions prepare upcoming offerings.

These results should be interpreted cautiously. Participation is shaped by multiple concurrent factors (format, target audience, credit recognition, communication channels, institutional incentives). In addition, negative end-to-begin gaps are informative of adaptive recruitment practices (e.g., deadline extensions to secure a viable cohort) rather than necessarily indicating a process failure. However, when deadline extensions overlap with the start of activities, they may increase operational complexity for teaching teams (late enrolments, access provisioning, and adjustments to early learning sequences), which should be considered when interpreting timing patterns.

Despite these limitations, the descriptive patterns support pragmatic recommendations to strengthen participation while managing logistical constraints:

- Publish earlier when possible to better match learners' and institutions' planning cycles.
- Maintain sufficiently long application windows for inter-institutional audiences, where decision cycles and timetable constraints tend to be longer.
- Clarify enrolment modality and date conventions (fixed cohort vs. flexible intake).
- Plan for contingency recruitment: if extensions close to the start are anticipated as a cohort-formation strategy, lightweight procedures (late onboarding protocol, communication templates, and rules for group-work entry) can reduce operational burden while preserving inclusivity.
- Use calendar-aware planning, positioning recruitment so that visibility peaks during periods of planning and coordination (e.g., ahead of semester start).

Together, these elements suggest that participation can be supported not only by “what is offered” (content and format) but also by “when and how it is offered” (timing, visibility, and recruitment design), provided that adaptive recruitment decisions are paired with clear operational protocols.

4.1.6. Completion outcomes – Intermediary results

During Pilot 1B, some ELOs delivered in the fall semester had final outcomes still under administrative consolidation at the time this intermediary report was written. For clarity and to avoid premature interpretation, the analyses below are restricted to assessed ELOs for which completion outcomes were already available. Across Pilot 1, 24 assessed ELOs are recorded. For this intermediary analysis, 17 ELOs are included and 7 ELOs are excluded because outcomes were not yet available (see Table 21). ELOs with outcomes still pending are excluded from the calculations and will be fully consolidated in the final project report.

Table 21. ELOs excluded from this intermediary completion analysis.

Excluded ELO (title)	PROVIDER	FORMAT	Excluded records
Innovation for sustainable water engineering and management	INSA Toulouse	Micro-Module	9
Multi-Agent Systems for Smart Machining II	INSA Toulouse	Challenge	13
Shape the future of mobility with foresight	INSA Toulouse	Challenge	39
Ditch it or pitch it - Selling yourself & your project	TUL	Micro-Module	10
Second Life, First Choice	UNITN	Challenge	27
Futureproof Tourism	UNITN	Challenge	26
Soft Skills & AI	UNITN	Micro-Module	31

On the analysed ELOs, completion remains high across both phases.

Table 22. Completion outcomes by pilot phase.

Pilot phase	Yes	No	Total	Completion rate (%)
Pilot 1A	169	23	192	88%
Pilot 1B	131	13	144	91%

By format, Micro-Modules account for all recorded non-completions on the included scope. CBL projects show no recorded non-completions within the included ELOs; however, two of the excluded ELOs are CBL projects, and their outcomes will be consolidated in the final report.

Table 23. Completion outcomes by learning format.

Format	Yes	No	Total	Completion rate (%)
CBL projects	71	0	71	100%
Micro-Modules	229	36	265	86%

Provider-level results should be interpreted alongside the scope restriction. In particular, excluded fall-semester ELOs are delivered by INSA Toulouse, TUL and UNITN. As a result, the Pilot 1B completion figures in this intermediary report reflect only the subset of ELOs with outcomes already available.

Table 24. Completion outcomes by provider institution.

Provider institution	Yes	No	Total	Completion rate (%)
INSA Toulouse	69	15	84	82%
UniTrento	54	0	54	100%
TUL	87	21	108	80%
LiU	90	0	90	100%

Completion outcomes on the included scope differ by participant affiliation. JUMP-affiliated show higher completion rates than other/external participants.

Table 25. Completion outcomes by JUMP affiliation.

Group	Yes	No	Total	Completion rate (%)
JUMP-affiliated	191	16	207	92%
Other	109	20	129	85%

Among consortium-affiliated learners, completion is lower for cross-institution enrolments (home \neq provider) than for local enrolments (home = provider). This subgroup remains small and the scope restriction should be kept in mind; nevertheless, it highlights the importance of recognition guidance and support processes when scaling cross-institution pathways in Pilot 2.

Table 26. Completion outcomes by intra-consortium mobility group.

Mobility group	Yes	No	Total	Completion rate (%)
Cross-institution enrolment (home ≠ provider)	20	9	29	69%
Same-institution enrolment (home = provider)	280	27	307	91%

4.2. Pilot 1 Portfolio Analysis

4.2.1. Pilot 1A

Pilot 1A represents the first implementation wave of WP3 and primarily served as a calibration stage for the emerging JUMP portfolio. During this phase, partners implemented 10 ELOs, predominantly Micro-Modules (9/10), with only one Challenge/CBL experience (see Appendix 4 for detailed information about the implemented ELOs in Pilot 1A). The workload of the implemented ELOs remained generally limited (most ELOs in the 1–2 ECTS range), which is consistent with a first-stage experimentation aiming to test formats, alignment processes and monitoring tools before moving toward deeper integration.

From a thematic perspective, Pilot 1A covers three main clusters that shape the initial identity of the portfolio: Responsible Entrepreneurship, Green Innovation, and Digital Innovation. These clusters already indicate complementary entry points into responsible innovation and entrepreneurship, combining transversal competence development, sustainability-oriented content, and technology-driven innovation themes.

In this section, Pilot 1A is analysed by institution, focusing on:

- the qualitative orientation of each partner’s ELOs (learning objectives, themes and self-positioning),
- the embedding mode of each ELO (curricular, extracurricular, or standalone), and
- the involvement of external stakeholders.

This structured reading allows the report to document how each partner contributed to the Pilot 1A portfolio and how these contributions collectively prepared the transition toward Pilot 1B and Pilot 2 integration.

Pilot 1 A - INSA Toulouse ELOs

In Pilot 1A, INSA Toulouse implemented two Micro-Modules, both positioned within the Digital Innovation thematic cluster. Together, they contribute a strong scientific and

technological component to the Pilot 1A portfolio, combining frontier knowledge with applied digital innovation contexts.

From a pedagogical and thematic perspective, Quantum Communication provides a structured introduction to key concepts and competences in quantum communication, clearly oriented toward advanced technological knowledge and emerging innovation domains. CARE complements this approach through a more applied focus on connected health, medical sensors and virtual reality, while opening the learning objectives to sociotechnical considerations (e.g., digital health uses and field-related constraints).

Self-positioning scores confirm this profile. INSA reports very high innovation alignment (5.0/5), while the entrepreneurship and sustainability dimensions are rated lower (2.0/5 for both). This pattern suggests that INSA's Pilot 1A contribution primarily strengthens the portfolio's technological and digital innovation backbone, whereas entrepreneurship and sustainability are not central organising dimensions within these two ELOs.

In terms of curricular embedding, both ELOs are integrated into the institutional curriculum (2 ECTS each).

Regarding external stakeholder involvement, one ELO (CARE) mobilises external partners (Research Lab, Hospital) in a field exploration role, providing access to real-world contexts and contributing to authenticity of learning activities. No external stakeholder is involved in Quantum Communication. Overall, INSA introduces an initial ecosystem connection through CARE in Pilot 1A; however, stakeholder involvement does not yet constitute a systematic feature of the INSA Pilot 1A portfolio.

Pilot 1A - University of Trento ELOs

In Pilot 1A, the University of Trento implemented three Micro-Modules, all positioned within the Responsible Entrepreneurship thematic cluster (3/3). Together, they form a coherent set of learning opportunities focused on transversal competences and a responsible entrepreneurial posture. Basics of Social Challenges addresses the understanding and analysis of societal challenges and supports awareness of responsibility-related issues. Communicating Innovation focuses on communication and collaboration competences, including transversal teamwork. Creativity and Collective Creativity in Organizations targets creativity, entrepreneurial mindset components, and collective dynamics in organisational contexts.

UNITN self-positioning scores confirm this profile, with Innovation rated very high (5.0/5), Entrepreneurship at a moderate level (3.0/5), and Sustainability lower (2.33/5).

Regarding curricular embedding, UNITN's Pilot 1A ELOs are not embedded within the institutional curriculum. Each Micro-Module carried 1 ECTS.

Finally, no external stakeholders were involved across the three UNITN ELOs (0/3).

Pilot 1A – Łódź University of Technology ELOs

In Pilot 1A, Łódź University of Technology implemented two Micro-Modules with a strong focus on practical entrepreneurship skills and an introduction to Challenge-Based Learning approaches. Ditch it or pitch it, positioned in the Responsible Entrepreneurship thematic cluster, focuses on pitch competences, personal communication, and the ability to valorise an idea or project, contributing to the development of an entrepreneurial posture. EdVenture Quest: The Art of CBL through Cases, positioned in the Green Innovation cluster, provides an introduction to CBL through case-based examples and supports learners' understanding of the main foundations and methods of challenge-based approaches.

TUL self-positioning scores reflect this profile, with Innovation rated at 4.0/5, Entrepreneurship at 5.0/5, and Sustainability at 3.5/5. These scores indicate that, within Pilot 1A, TUL places a particularly strong emphasis on entrepreneurship-related learning outcomes, while maintaining a meaningful sustainability component.

In Pilot 1A, TUL delivered its Micro-Modules as extracurricular learning opportunities (2 ECTS and 1 ECTS respectively), enabling flexible participation outside formal programme structures.

Finally, no external stakeholders were involve for the two TUL ELOs in Pilot 1A (0/2).

Pilot 1A – Linköping University ELOs

In Pilot 1A, Linköping University implemented three ELOs with a strong emphasis on sustainability-oriented innovation and real-world challenge approaches. LiU delivered two Micro-Modules and the only Challenge/CBL ELO of Pilot 1A, positioning its contribution as particularly aligned with the sustainability dimension of the emerging JUMP portfolio. InGenious Responsible Innovation for a Sustainable World, positioned in the Green Innovation thematic cluster, focuses on responsible innovation and case-based analysis, with a strong sustainability orientation. Business modelling in the circular economy, positioned in Responsible Entrepreneurship, addresses circular business models and the articulation between economic reasoning and sustainability. InGenious – Sustainable Cities and Communities, a Challenge positioned in Green Innovation, introduces a more structured challenge-based logic oriented toward territorial issues and SDG-related themes.

LiU conducted an initial test of ELO bundling, i.e., a first attempt to connect multiple learning opportunities into a more coherent sequence. This initiative provided an early indication of how

Micro-Modules and a Challenge can be articulated into a pathway-oriented learning experience, anticipating the integration objectives of Pilot 2.

LiU self-positioning scores reflect this orientation, with Innovation rated at 4.0/5, Entrepreneurship at 4.33/5, and Sustainability at 5.0/5. These scores indicate that LiU places sustainability at the core of its Pilot 1A contribution, while also reporting high alignment with innovation and entrepreneurship.

Regarding curricular embedding, LiU Pilot 1A ELOs were delivered as standalone learning opportunities, i.e., not embedded within the institutional curriculum. The ECTS values (between 2 and 5 ECTS) nevertheless show that these were substantial learning units in terms of workload and recognition potential.

Finally, LiU reported external stakeholder involvement in 2 out of 3 ELOs, reinforcing the real-world anchoring of its Pilot 1A contribution. The stakeholders reported include a mining company providing a case context and the Södra forest owner association acting as a challenge provider. In Pilot 1A, LiU therefore stands out as the most ecosystem-oriented partner and the only institution combining stakeholder involvement with a challenge format already in the first phase of the pilot.

Pilot 1A Synthesis

Pilot 1A formed a complementary and distributed portfolio in which each partner institution contributes a distinct profile, resulting in an initial division of roles across the consortium. INSA Toulouse primarily strengthens the portfolio through Digital Innovation and frontier technological themes, with very high innovation self-positioning and comparatively lower emphasis on entrepreneurship and sustainability. UNITN contributes a coherent set of Micro-Modules in Responsible Entrepreneurship, focusing on transversal competences such as communication, creativity, and the analysis of societal challenges, thereby providing foundational skills relevant for later challenge-based experiences. TUL contributes a more operational entrepreneurship focus, combining practical entrepreneurship skills with an introduction to CBL through cases, delivered in an extracurricular format that supports flexibility and experimentation. LiU anchors the portfolio in a sustainability orientation, combining high sustainability self-positioning with the only Pilot 1A Challenge and explicit stakeholder involvement, and introducing early attempts at integrating learning opportunities through a first bundling test.

Together, these complementary profiles contribute to an emerging Pilot 1A identity that is simultaneously innovation-oriented, competence-based, and progressively challenge-driven, while still reflecting a calibration logic in terms of formats and integration.

Pilot 1A provides several clear opportunities to build upon in Pilot 2. First, the portfolio shows strong thematic complementarities that can support pathway design and structured learning sequences, for example by articulating transversal prerequisites (communication, creativity, societal challenge framing) with applied entrepreneurship skills (pitching, CBL foundations), sustainability-oriented challenges, and technological innovation contributions. Second, Pilot 1A already demonstrates an initial ecosystem anchoring, mainly through LiU and one INSA ELO, which can be expanded and systematised in Pilot 2 to strengthen authenticity of learning experiences and prepare the transition toward WP4 activities. Third, Pilot 1A established a first implementation structure combining a Micro-Module foundation with one Challenge, which is consistent with an experimentation phase and can serve as a starting point for more integrated pathway testing in the next pilot stage.

Pilot 1A combined curricular, extracurricular and standalone ELOs, reflecting partners' different institutional constraints and degrees of flexibility during the calibration phase. This diversity enabled rapid testing and portfolio build-up, but it also indicates that curricular ELOs are likely to provide the most stable basis for continuity and recurring cohorts, while standalone/extracurricular ELOs remain valuable for flexibility and openness but require stronger coordination and clearer recognition arrangements. Pilot 2 should therefore consolidate a curricular core to support pathway coherence, recognition, and quality assurance.

In addition, stakeholder involvement remains concentrated in a limited number of ELOs, primarily within LiU (and one INSA ELO), creating a risk of relying on a small set of flagship opportunities for the ecosystem dimension.

4.2.2. Pilot 1B

Pilot 1B represents the second implementation wave of Pilot 1, introducing newly developed ELOs and expanding the portfolio with additional CBL/Challenge formats (see full list in Appendix 4). The consortium implemented 14 ELOs, including a stronger presence of CBL/Challenge formats and a higher share of newly developed learning opportunities. The overall profile of Pilot 1B reflects a shift from calibration of existing Micro-Modules toward portfolio expansion, format diversification, and stronger ecosystem anchoring through external stakeholder involvement.

From a thematic perspective, Pilot 1B consolidates the initial clusters (Responsible Entrepreneurship and Green Innovation) while introducing a new and distinctive cluster, Smart Manufacturing, which contributes to the technical and applied dimension of the portfolio. In this section, Pilot 1B is analysed by institution, focusing on:

- learning objectives, themes and self-positioning;
- embedding mode (curricular, extracurricular, or standalone);

- external stakeholder involvement; and
- emerging cross-partner collaboration signals (co-design/co-teaching) when explicitly identified in the dataset.

Pilot 1B - INSA Toulouse ELOs

In Pilot 1B, INSA Toulouse implemented five courses, of which 4 ELOs, combining three Micro-Modules and two Challenge/CBL projects, and an extracurricular workshop. Compared to Pilot 1A, INSA's Pilot 1B contribution shows a broader and more applied portfolio, with learning opportunities increasingly connected to real-world contexts and challenge-driven learning.

From a thematic perspective, the Pilot 1B offer includes learning opportunities related to advanced engineering contexts and applied innovation, and contributes to the emergence of Smart Manufacturing-related content within the overall portfolio. Several ELOs focus on technical systems and their application in realistic settings, while also introducing or reinforcing challenge-based formats.

Self-positioning scores for INSA in Pilot 1B indicate Innovation at 4.20/5, Entrepreneurship at 2.20/5, and Sustainability at 3.60/5. This profile confirms a strong innovation orientation, while sustainability becomes more visible than in Pilot 1A, and entrepreneurship remains a less central declared dimension within INSA's Pilot 1B offer.

Regarding curricular embedding, INSA Pilot 1B ELOs are curricular courses supported by credit recognition and integration within the institutional framework.

External stakeholder involvement is reported for 4 out of 5 ELOs, indicating a substantial increase compared to Pilot 1A. The stakeholder profiles reported include innovation-oriented actors and applied context providers, reinforcing the authenticity of learning activities and the portfolio's connection to socio-economic or professional contexts.

Finally, Pilot 1B includes clear signals of cross-partner collaboration within INSA's contribution. Co-design opportunities are explicitly mentioned for a subset of ELOs (notably including the Multi-Agent Systems for Smart Machining and Shape the future of mobility with foresight, learning opportunities). In addition, co-teaching is mentioned as a planned continuation/adaptation for the two Multi-Agent Systems for Smart Machining ELOs (MassMa I and MassMa II), signalling concrete integration levers that can be further developed in Pilot 2.

Pilot 1B – University of Trento ELOs

In Pilot 1B, the University of Trento implemented four ELOs, combining two Micro-Modules and two Challenge/CBL projects. Compared to Pilot 1A, UNITN's Pilot 1B contribution expands both the format diversity and the intensity of learning opportunities, with several ELOs delivered as substantial credit-bearing courses.

From a learning and thematic perspective, UNITN's Pilot 1B portfolio continues to reinforce the Responsible Entrepreneurship orientation of the overall offer. The implemented ELOs address innovation and entrepreneurship competences through applied learning activities and, for the Challenge/CBL formats, through more immersive, problem- or context-driven learning experiences. In this sense, UNITN's Pilot 1B offer supports the consolidation of an entrepreneurship-focused pathway within the emerging portfolio.

Self-positioning scores for UNITN in Pilot 1B indicate Innovation at 4.75/5, Entrepreneurship at 4.50/5, and Sustainability at 3.75/5. This profile reflects a strong emphasis on innovation and entrepreneurship, together with a higher sustainability positioning than in Pilot 1A.

Regarding curricular embedding, UNITN Pilot 1B ELOs are reported with diverse embedding modes (curricular and/or extracurricular).

External stakeholder involvement is reported for 3 out of 4 ELOs, indicating a significant increase compared to Pilot 1A. The stakeholder types reported include innovation-oriented and external expert profiles, contributing to the authenticity of activities and strengthening ecosystem connections.

Finally, while Pilot 1B shows increasing openness to collaboration at portfolio level, no explicit co-teaching arrangements are reported within the UNITN Pilot 1B ELO descriptions.

Pilot 1B - Łódź University of Technology ELOs

In Pilot 1B, Łódź University of Technology implemented four ELOs, delivered as Micro-Modules. Compared to Pilot 1A, TUL expanded its contribution in volume and diversified its thematic coverage, strengthening the overall portfolio with applied engineering-oriented learning opportunities.

From a thematic perspective, TUL's Pilot 1B portfolio contributes to the consolidation of the existing clusters (notably Responsible Entrepreneurship and Green Innovation) and supports the emergence of more technically anchored content within the broader portfolio dynamics. Several ELOs align with applied engineering challenges and transition-related topics, contributing to the increasing maturity and breadth of the Micro-Module offer in Pilot 1B.

Self-positioning scores for TUL in Pilot 1B indicate Innovation at 3.50/5, Entrepreneurship at 2.50/5, and Sustainability at 3.75/5. This profile shows that, in Pilot 1B, sustainability is a more prominent declared dimension than entrepreneurship within TUL's offer, while innovation remains moderately positioned.

Regarding curricular embedding, the TUL Pilot 1B ELOs are reported with diverse embedding modes (Micro-Modules labelled with curricular and/or extracurricular positioning).

External stakeholder involvement is reported for 1 out of 4 ELOs, indicating some ecosystem connection.

Finally, Pilot 1B includes signals of cross-partner collaboration related to the TUL portfolio. For two ELOs (Towards Smart Maintenance in Robotized Industries and Sustainable Transitions & Reliable Engineering Systems), collaboration opportunities are identified with INSA Toulouse for further development in the next phase.

Pilot 1B – Linköping University ELOs

In Pilot 1B, Linköping University implemented one ELO, delivered in a Challenge/CBL format. Although this represents a smaller volume than LiU's Pilot 1A contribution, the Pilot 1B ELO remains strategically significant within the overall portfolio because it reinforces the challenge-based and sustainability-oriented dimension of the emerging Minor.

From a learning and thematic perspective, LiU's Pilot 1B contributes to sustainability-related challenge themes. This is consistent with LiU's Pilot 1A profile, where sustainability and real-world challenges were already strongly present, and it maintains continuity in LiU's contribution to the distributed portfolio.

Self-positioning scores for LiU in Pilot 1B indicate Innovation at 3.0/5, Entrepreneurship at 4.0/5, and Sustainability at 5.0/5. This confirms LiU's sustained emphasis on sustainability, together with a strong entrepreneurship orientation in the declared positioning.

Regarding curricular embedding, the LiU Pilot 1B ELO is reported with curricular integration.

External stakeholder involvement is reported for this ELO, maintaining LiU's strong ecosystem anchoring and reinforcing the authenticity of the challenge context.

Pilot 1B Synthesis

Pilot 1B confirms a clear shift in the overall portfolio dynamics compared to Pilot 1A. While Pilot 1A primarily focused on calibrating existing Micro-Modules, Pilot 1B represents a second implementation wave characterised by portfolio expansion, greater format diversification, and

a stronger presence of Challenge/CBL learning experiences. Across partners, Pilot 1B combines Micro-Modules and challenges in a way that strengthens the applied and challenge-driven dimension of the emerging Minor.

The thematic landscape also evolves. Pilot 1B consolidates the initial clusters (Responsible Entrepreneurship and Green Innovation) while introducing a new and distinctive area, Smart Manufacturing, which increases the technical and industry-connected profile of the portfolio. Overall, Pilot 1B therefore reinforces the identity of the JUMP offer as a distributed set of learning opportunities combining innovation and entrepreneurship competences with sustainability-oriented perspectives and challenge-based pedagogies.

Pilot 1B provides several strong levers for Pilot 2 integration. First, the portfolio offers clearer conditions for pathway design, as thematic complementarities become more structured across clusters (e.g., Responsible Entrepreneurship modules supporting entrepreneurship-oriented progression, Green Innovation and sustainability-oriented challenges providing real-world anchoring, and Smart Manufacturing offering applied engineering contexts).

Second, Pilot 1B demonstrates a significant increase in ecosystem involvement. External stakeholder participation is reported more frequently across partners, especially within INSA and UNITN, and remains systematic within LiU's challenge-based offer. This provides a stronger basis for authentic learning activities and strengthens the link with WP4 perspectives (internships and thesis-related challenges).

Third, Pilot 1B contains concrete signals of cross-partner collaboration that can be scaled in Pilot 2. Co-design opportunities are explicitly identified in a subset of ELOs (notably involving INSA and TUL), and co-teaching is a planned continuation for several ELOs. These elements represent tangible entry points for strengthening transnational integration beyond parallel local delivery.

Pilot 1B also highlights several points requiring attention for Pilot 2 consolidation. First, cross-partner collaboration remains unevenly distributed across the portfolio: co-design and co-teaching signals are present but concentrated in a limited number of ELOs. Pilot 2 will therefore need to broaden and formalise these collaboration mechanisms to reinforce European added value and pathway coherence.

Second, portfolio expansion increases the need for stronger articulation and coherence across learning opportunities. As the number and diversity of ELOs grow, clear guidance is needed regarding recommended sequences, prerequisite relationships, and recognition rules, so that learners can navigate the offer as an integrated pathway rather than independent units.

Third, although stakeholder involvement increases overall, it remains heterogeneous across partners and ELOs, suggesting the need for a more systematic approach to developing and sustaining a pipeline of external partners and challenges for future cohorts.

Overall, Pilot 1B demonstrates increasing maturity of the JUMP portfolio, through diversified formats, stronger ecosystem anchoring, and collaboration signals, while also clarifying the main integration challenges to be addressed in Pilot 2.

4.3. Students and Teamchers Feedbacks

Student feedback is a key component of WP3 monitoring and quality assurance, supporting iterative improvement of Educational Learning Opportunities (ELOs) and, critically, the coherence of the JUMP Minor as a pathway. Across partner institutions, student feedback practices are embedded in different institutional cultures and quality assurance systems, with heterogeneous scopes and tools. During Pilot 1, partners therefore relied primarily on their existing institutional course evaluation instruments where these were available, while WP3 initiated the co-design of a shared pathway-oriented framework referred to as the Educational Experience Evaluation (EEE). The aim is twofold: document course-level perceptions to improve delivery of ELOs; and capture transversal dimensions of the learning journey that are central to a pathway (e.g., coherence across ELOs, perceived progression, integration of experiences, and contribution to students' educational and professional development).

4.3.1. Pilot 1 Feedback Collection Approach

Pilot 1 feedback data should be interpreted as an exploratory and non-systematic evidence base. Two main channels were used:

- Institutional course evaluation tools (where available), used to collect course-level student feedback.
- Complementary qualitative reflections gathered by teaching teams (Teamchers).

Because participation in feedback collection was not yet systematic across providers, response rates remained low in all cases. Consequently, Pilot 1 reporting focuses on the nature of the tools used and the type of learning experience dimensions they capture, rather than on aggregating quantitative results.

4.3.2. Dimensions Captured by Institutional Course Evaluation Tools

LiU provided access to the structure of its institutional course evaluation survey and a limited set of student responses for selected courses. The LiU instrument is a standard course evaluation tool designed to support quality assurance at course level. Its items capture the following dimensions:

Dimension	Illustrative items captured by the survey
Constructive alignment (learning outcomes–content–methods–assessment)	Perceived opportunity to achieve learning outcomes; relevance of teaching/working methods; relevance of graded components; perceived support for learning.
Workload–credit fit	Perceived correspondence between time spent and credit value.
Course administration and improvement	Open questions on possible changes and on particularly successful aspects.
Syllabus consistency	Perceived agreement between content/teaching/examination and the course syllabus.
Overall evaluation	Global course evaluation item.
Inclusion and equal opportunities	Items on witnessing discrimination/harassment/exclusion; whether the course was designed and delivered with equality and equal opportunities in mind.

Overall, the LiU tool provides useful evidence for course-level quality improvement, with a strong emphasis on alignment and immediate perceptions of delivery. However, it is not designed to capture pathway-level outcomes and transversal objectives (e.g., coherence across ELOs, cumulative progression, integration between learning experiences, or perceived contribution to longer-term development).

4.3.3. Complementary Qualitative Feedback from Teaching Teams

To contextualise the student response patterns observed in institutional tools, Teamchers also provided brief qualitative reflections. At LiU, the teaching team highlighted that feedback was heterogeneous, including one student expressing low appreciation for the CBL approach. The Teamchers’ interpretation emphasised that CBL can enhance learning when learners are willing to engage with uncertainty and collaborative inquiry. They also noted potential barriers such as social anxiety in the face of open-ended challenges, differences in ambition levels within student groups, and emerging questions regarding the role of AI in group work and learning processes.

In parallel, TUL collected open feedback from participants in the micromodule “EdVenture Quest: The Art of CBL through Cases”. Although this feedback is not directly comparable to institutional course evaluation data, it offers a picture of perceived value and areas for improvement. Students described the micromodule as engaging, practical, and supportive for understanding and applying CBL principles. Suggestions mainly concerned the wish for additional time and/or further examples to deepen discussion.

UniTrento implemented a course-level feedback questionnaire for the Innovation and Entrepreneurship Studies in ICT ELO. It is built around three open-ended questions inviting students to explain their satisfaction with the way the course was conducted and the reasons underlying this appraisal, identify the most problematic aspect of their course experience, and indicate whether they would recommend using the methodology again, including its perceived strengths and weaknesses. The UniTrento Internal survey overall results are presented in Appendix 5.

4.3.4. Co-Design of a Shared Educational Experience Evaluation Framework

Pilot 1 confirmed a limitation already anticipated in the project's monitoring strategy: course-level institutional surveys capture important aspects of satisfaction and delivery, but they do not provide adequate visibility on the pathway-oriented experience of participating in JUMP. In response, WP3 initiated the collaborative development of a shared framework referred to as the Educational Experience Evaluation (EEE), with contributions from all partners (Appendix 6).

The EEE is intended to be implemented across providers to enable consistent and comparable feedback collection at pathway level. Its conceptual focus is the student learning journey across multiple ELOs, including the perceived coherence of the Minor, progression and transfer across learning experiences, adequacy of support and resources, inclusivity, and perceived contribution to educational and professional development.

During Pilot 1, the EEE instrument was tested with a limited student sample (n=6). The results are presented in Appendix 7. Given the small and non-representative sample, this trial is treated as an instrument piloting step (clarity, feasibility, acceptability, and relevance of dimensions) rather than as evaluative evidence of the JUMP experience. The instrument will therefore be refined and systematically deployed in Pilot 2.

Recommendations for Pilot 2 focus on systematic, comparable, and pathway-relevant feedback collection:

- Systematically implement the shared EEE across all providers and ELOs in Pilot 2, using harmonised administration procedures and timelines.
- Strengthen response rates through coordinated communication (clear purpose, short completion time, reminders), and by ensuring that survey invitations reach all participant profiles (including non-student participants) through appropriate channels.
- Maintain a dual-level feedback approach: keep course-level instruments for local quality improvement, and use the EEE to capture transversal pathway dimensions (coherence, progression, integration, support, inclusivity, and development).

- Include a small set of optional open questions in the EEE to capture contextual and culturally situated aspects that may not be fully represented by closed items.
- Define a minimal reporting protocol for Pilot 2.

These steps will allow WP3 and the consortium to move from exploratory feedback collection in Pilot 1 to a structured, evidence-informed evaluation of the educational experience and pathway coherence in Pilot 2, supporting both local improvement and consortium-level learning.

4.4. Summary of A3.2

To sum up, Pilot 1 implementation met and exceeded WP3 milestones indicators (M3.1–M3.3), validating the feasibility of delivering Micro-Modules and CBL projects across the consortium.

- The learning offer scaled to 24 ELOs (10 in Pilot 1A; 14 in Pilot 1B), with a clear expansion in newly created ELOs and external stakeholder involvement, especially in Pilot 1B.
- Implementation capacity strengthened: 33 contributors were mobilised and team structures became more robust, including increased mentoring and larger delivery teams in Pilot 1B.
- Participation reached 397 enrolments, already surpassing WP3 participation KPIs for both Micro-Modules and CBL.
- Target reach improved over time: JUMP-affiliated participation increased from Pilot 1A to 1B, while CBL remained comparatively effective at engaging non-JUMP learners.
- Cross-institution access was demonstrated but remains a development priority: cross-enrolment exists yet is limited, and completion is lower among cross-enrolled learners, indicating the need for stronger onboarding, follow-up, and recognition mechanisms.
- Completion rates (within the interim, scope-limited dataset) are high overall, with profile-related differences (JUMP-affiliated learners completing more often than non-affiliated), informing targeted support actions for Pilot 2.

- Evidence collection must be consolidated: feedback data are heterogeneous across providers, supporting the move toward a shared, more systematic evaluation framework for Pilot 2 (including pathway coherence and learner experience).

5. Recommendations for Pilot 2

Pilot 1 demonstrates that the consortium can deliver a sizeable and diverse portfolio while exceeding WP3 contractual thresholds. The main challenge for Pilot 2 is therefore not more delivery, but stronger integration: helping learners experience JUMP as a coherent pathway and ensuring that cross-institution participation becomes both easier and more successful.

A first priority for Pilot 2 is to move to an explicitly navigable pathway. Pilot 1 shows growing thematic structuring (e.g., Responsible Entrepreneurship, Green Innovation, and the emergence of Smart Manufacturing) and early attempts at bundling. Pilot 2 should formalise these complementarities into a small number of recommended sequences with clear entry points, expected progression, and prerequisite logic. This means translating “JUMP DNA” into practical pathway guidance: what a learner should take first (foundational transversal micro-modules), what can be taken in parallel, and what prepares most directly for a CBL experience. Such pathway framing should be visible in recruitment messages, ELO descriptions, and learner onboarding materials so that participation decisions are not made course-by-course without a sense of cumulative coherence.

A second priority concerns recognition and learner support for cross-institution enrolment, because Pilot 1 indicates a clear performance gap: completion among cross-enrolled consortium learners is substantially lower than among learners taking an ELO at their home institution. This is a strong signal that access is not enough. Pilot 2 should therefore introduce more explicit recognition guidance (credit transfer, workload expectations, local programme fit), a lightweight cross-enrolment onboarding protocol (timely access provisioning, platform orientation, points of contact), and proactive follow-up for students whose home \neq provider.

Third, Pilot 2 should consolidate operational planning around calendars and recruitment design, as Pilot 1 suggests that timing and visibility shape participation patterns and may also increase delivery complexity when enrolment windows overlap with course start. Pilot 2 can protect both participation and staff workload by encouraging earlier publication of opportunities, keeping application windows sufficiently long for inter-institution audiences, and standardising date conventions where feasible (especially the end-to-begin “buffer” that supports onboarding).

Fourth, Pilot 2 should scale cross-partner pedagogical collaboration beyond a few flagship ELOs. Pilot 1 already contains signals of co-design and planned co-teaching, but these remain concentrated. To increase European added value and reduce fragmentation, Pilot 2 can

formalise collaboration through a small number of jointly delivered activities inside selected pathways (for example shared sessions, shared assessment moments, or shared challenge briefings), supported by an agreed division of teaching roles and a common set of pedagogical resources.

Fifth, Pilot 2 should systematise ecosystem engagement while preserving diversity across partners. Pilot 1B shows a clear rise in external stakeholder involvement, but it remains heterogeneous across institutions and ELOs. Pilot 2 can stabilise this dimension by defining a minimal stakeholder involvement model (e.g., challenge provider role, guest expert role, field context role) and by maintaining a shared “pipeline” of potential partners and challenge topics aligned with the emerging clusters. This would reduce over-reliance on a small set of recurring stakeholders and strengthen continuity with WP4 perspectives (internships/theses).

Sixth, Pilot 2 should strengthen inclusion and targeted outreach, because Pilot 1 reveals a widening gender imbalance in the second phase. Without assuming causal mechanisms, Pilot 2 can treat this as a monitoring and action priority by adapting communication strategies, reviewing whether some themes or formats may unintentionally deter participation, and ensuring that learner support structures are inclusive, especially in open-ended challenge settings where uncertainty, group dynamics, and social anxiety can be barriers for some participants.

Finally, Pilot 2 should strengthen evidence collection at pathway level. Pilot 1 feedback was exploratory and heterogeneous, and the report already identifies the need for a shared EEE framework to capture coherence, progression, integration and support across multiple ELOs. Pilot 2 should implement the EEE systematically across providers with harmonised administration timelines, strengthened response-rate strategies, and a minimal reporting protocol that enables consortium-level learning while still leaving space for local course-level instruments. In addition, given emerging questions raised by teaching teams around learner engagement in CBL and the role of AI in group work, Pilot 2 should explicitly include items that capture these dimensions in a comparable way across contexts.



Deliverable report

D3.1. Intermediary summary report on the development and pilot implementation of min. 8 blended Micro-modules and 2 CBL projects focusing on innovation and entrepreneurship skills in Pilot 1 and recommendations for Pilot 2

Appendix 1

JUMP Pedagogical documentation template

ELO Monitoring Matrix Items	Items	Content
ELO info	Title	Title of the ELO
	Type	Pedagogical format of the ELO: - MM = ECIU Micro Module - MM / Curricular = ECIU Micro Module based on a curricular course at the partner institution offering it (often mandatory as it is based on a course included in the institution's curriculum, but it may also be offered as an elective option to students) - MM / Curricular / Extracurricular = ECIU Micro Module based on a curricular course at the partner institution and also offered as extracurricular (non-mandatory course) - MM / Extracurricular = ECIU Micro Module offered as an extracurricular activity at the partner institution (non-mandatory course) - Challenge = ECIU Challenge - Challenge / Curricular = ECIU Challenge based on a curricular course at the partner institution offering it - Challenge / Curricular / Extracurricular = ECIU Challenge based on a curricular course at the partner institution and also offered as extracurricular (non-mandatory course) - Challenge / Extracurricular = ECIU Challenge offered as an extracurricular activity at the partner institution (non-mandatory course) - Extracurricular = Activity offered as an extracurricular activity at the partner institution (non-mandatory course) not part of the ECIU ELO offer
	Academic Year	Academic year in which the ELO is delivered
	Application start	Start date of student application submission
	Application end	End date of student application submission
	Beginning	Course start date
	End	Course end date
	Format	Pedagogical format in which the course is delivered: - on site: face-to-face on the delivering campus - online: fully online - blended: online course including a short mobility period on the campus of the delivering institution

	ECTS	Number of credits awarded to students who successfully complete the course
	Pilot	Pilot phase during which the ELO was implemented
	Conception (new/existing)	"existing" indicates that the ELO is based on a course that existed before JUMP. "new" indicates an ELO designed within the JUMP project.
	State	Indicates the current stage of the course: call for applications open, ELO ongoing, or completed ("Finished")
	Organisation	Institution originating the ELO
	Repetition	Indicates whether the ELO will be delivered again in the future and, if known, when and at what frequency.
	Codesign	Indicates whether the course was co-designed (or based on collaboration such as co-teaching or resource sharing)
	Course description	Contains the concise description of the course
	Learning outcomes	Contains the list of learning outcomes
	Competency assessment methods	Indicates the method used to assess students in the course
Overall results	Passed	Number of students who successfully completed the course and obtained credits
	Failed	Number of students who failed
	Dropped out	Number of students who withdrew
	Total students	Total number of students enrolled in the ELO
	Total JUMP students	Total number of students enrolled from the JUMP consortium
	Total UniTrento students	Total number of students enrolled from UniTrento
	Total LiU students	Total number of students enrolled from LiU
	Total TUL students	Total number of students enrolled from TUL
	Total INSA Toulouse students	Total number of students enrolled from INSA Toulouse
	Total External students	Total number of students enrolled from institutions outside the JUMP project
	Total Teachers	Total number of teachers involved in delivering the ELO (lecturers/tutors)
Alignment with JUMP Topics	Entrepreneurship	Self-assessment regarding course content in Entrepreneurship (1=very low, 5=very high)
	Innovation	Self-assessment regarding course content in Innovation (1=very low, 5=very high)
	Sustainability	Self-assessment regarding course content in Sustainability (1=very low, 5=very high)
	Cross-disciplinarity? (Yes=2 / No=1)	Indicates whether the course offers opportunities for interdisciplinarity (Yes=2 / No=1)
	Other main topic (if any, and relation with I&E/sustainability)	Indicates whether other topics related to innovation, entrepreneurship or sustainability are addressed
	Thematic cluster	Indicates the I&E thematic cluster to which the ELO belongs
External stakeholders	External stakeholders involved? (Yes/No)	Indicates whether external stakeholders are involved in the ELO
	Type of external stakeholders	Specifies the type of stakeholders involved, if any
	Role of external stakeholders	Indicates the role of the stakeholder(s) in the ELO
	Stakeholder involvement continuity (reused?)	Indicates whether collaboration with the stakeholder will be renewed in the future
Technical & Logistical Modalities	Engage url	Indicates whether the ELO is registered in the ECIU offer and Engage page
	Synchronicity	Specifies whether the course is synchronous, asynchronous, or mixed
	Digital tools	Indicates the digital tools used in the course
	Pedagogical adaptations	Indicates whether pedagogical modifications/improvements are planned in the future

Deliverable report

D3.1. Intermediary summary report on the development and pilot implementation of min. 8 blended Micro-modules and 2 CBL projects focusing on innovation and entrepreneurship skills in Pilot 1 and recommendations for Pilot 2

Appendix 2

List of unique contributors to Pilot 1

Name	Organisation
Alessandro Rossi	UNITN
Anna Carla de Araujo Monteiro	INSA Toulouse
Antonin Azais	INSA Toulouse
Artur Blaszczyk	TUL
Charlotte Norrman	LiU
Christelle Guigui	INSA Toulouse
Claudio Tagliabue	UNITN
Clelia Calabrò	UNITN
Eric Alata	INSA Toulouse
Francesco Guzzonato	UNITN
Georges Soto-Romero	INSA Toulouse
Jakub Statucki	TUL
Jessica Lucchetta	UNITN
Joanna Milosz-Batczak	TUL
Karin Wigger	LiU
Karl Eldebo	LiU
Katja Auffret	INSA Toulouse
Lucilla Fazio	UNITN
Lydia Bédouret	INSA Toulouse
Magdalena Gałaj	TUL
Malin Karlsson	LiU
Marzena Stawicka	TUL
Maurizio Marchese	UNITN
Paolo Bosetti	UNITN
Paweł Just	TUL

Roberto Napoli	UNITN
Rosine Ingabire	INSA Toulouse
Silvia Cortesia	UNITN
Stefano Cirella	UNITN
Stefano Turrini	UNITN
Thierry Monteil	INSA Toulouse
Tommaso Corà	UNITN
Yolaine Bessiere	INSA Toulouse

D3.1. Intermediary summary report on the development and pilot implementation of min. 8 blended Micro-modules and 2 CBL projects focusing on innovation and entrepreneurship skills in Pilot 1 and recommendations for Pilot 2

Appendix 3
Students Pilot 1

PARTNER COORDINATING THE EDUCATION OR TRAINING	PILOT	TITLE OF THE EDUCATION OR TRAINING ACTIVITY In English	UNIQUE PERSONAL IDENTIFIER	Id for Pilot1 analysis		GENDER	COUNTRY OF CITIZENSHIP	TYPE OF PARTICIPANT Student, Academic Staff, Non-Academic Staff	PARTICIPANT AFFILIATION	JUMP students	SUCCESSFULLY FINISHED THE TRAINING
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-001	1		Woman	Finland	Student	TUNI	Other	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-002	2		Man	Poland	Student	TUL	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-003	3		Woman	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-004	4		Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-005	5		Woman	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-006	6		Woman	Lithuania	Student	KTU	Other	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-007	7		Man	Norway	Student	UIS	Other	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-008	8		Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-009	9		Woman	Italy	Student	UniTrento	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-010	10		Woman	France	Student	INSA Strasbourg	Other	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-011	11		Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-012	12		Woman	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-013	13		Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-014	14		Woman	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-015	15		Woman	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-016	16		Man	Lithuania	Student	KTU	Other	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-017	17		Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-018	18		Man	France	Student	INSA Strasbourg	Other	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-019	19		Woman	Poland	Student	TUL	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-020	20		Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-021	21		Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-022	22		Man	Poland	Student	TUL	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-023	23		Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-024	24		Man	France	Student	INSA Toulouse	JUMP	No
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-025	25		Woman	Germany	Student	TUHH	Other	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-026	26		Woman	Poland	Student	TUL	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-027	27		Man	Lithuania	Student	KTU	Other	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-028	28		Woman	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-029	29		Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-030	30		Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-031	31		Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-032	32		Woman	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-033	33		Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	CARE -Medical Connected Sensors and Virtual Reality	INSAToulouse-A-034	34		Woman	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	Quantum Communication and Computing	INSAToulouse-A-035	35		Man	Finland	Student	TUNI	Other	Yes
INSA Toulouse	1A	Quantum Communication and Computing	INSAToulouse-A-036	36		Man	Italy	Student	UniTrento	JUMP	Yes
INSA Toulouse	1A	Quantum Communication and Computing	INSAToulouse-A-037	37		Man	Norway	Student	UIS	Other	No
INSA Toulouse	1A	Quantum Communication and Computing	INSAToulouse-A-038	38		Man	France	Student	INSA Haut-De-France	Other	Yes
INSA Toulouse	1A	Quantum Communication and Computing	INSAToulouse-A-039	39		Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1A	Quantum Communication and Computing	INSAToulouse-A-040	40		Man	France	Student	INSA Haut-De-France	Other	Yes
INSA Toulouse	1A	Quantum Communication and Computing	INSAToulouse-A-041	41		Man	Poland	Student	TUL	JUMP	No
INSA Toulouse	1A	Quantum Communication and Computing	INSAToulouse-A-042	42		Man	Poland	Student	TUL	JUMP	No
INSA Toulouse	1A	Quantum Communication and Computing	INSAToulouse-A-043	43		Man	France	Student	INSA Haut-De-France	Other	Yes
INSA Toulouse	1A	Quantum Communication and Computing	INSAToulouse-A-044	44		Woman	Poland	Student	TUL	JUMP	No
INSA Toulouse	1A	Quantum Communication and Computing	INSAToulouse-A-045	45		Man	Netherlands	Student	UT	Other	No
INSA Toulouse	1A	Quantum Communication and Computing	INSAToulouse-A-046	46		Man	Poland	Student	TUL	JUMP	No
INSA Toulouse	1A	Quantum Communication and Computing	INSAToulouse-A-047	47		Man	Lithuania	Student	KTU	Other	No
LIU	1A	InGenious Responsible Innovation for a Sustainable World	LIU-A1-001	48		Woman	Canada	Student	Carleton University	Other	Yes
LIU	1A	InGenious Responsible Innovation for a Sustainable World	LIU-A1-002	49		Woman	Netherlands	Student	Wageningen University	Other	Yes
LIU	1A	InGenious Responsible Innovation for a Sustainable World	LIU-A1-003	50		Woman	China	Student	The Hong Kong Polytechnic University	Other	Yes
LIU	1A	InGenious Responsible Innovation for a Sustainable World	LIU-A1-004	51		Woman	China	Student	The Hong Kong Polytechnic University	Other	Yes
LIU	1A	InGenious Responsible Innovation for a Sustainable World	LIU-A1-005	52		Man	Japan	Student	Akita International University	Other	Yes
LIU	1A	InGenious Responsible Innovation for a Sustainable World	LIU-A1-006	53		Woman	Germany	Student	Technische Universität Berlin	Other	Yes
LIU	1A	InGenious Responsible Innovation for a Sustainable World	LIU-A1-007	54		Woman	Sweden	Student	LIU	JUMP	Yes
LIU	1A	InGenious Responsible Innovation for a Sustainable World	LIU-A1-008	55		Woman	Sweden	Student	LIU	JUMP	Yes
LIU	1A	InGenious Responsible Innovation for a Sustainable World	LIU-A1-009	56		Man	Sweden	Student	LIU	JUMP	Yes
LIU	1A	InGenious Responsible Innovation for a Sustainable World	LIU-A1-010	57		Man	Sweden	Student	LIU	JUMP	Yes
LIU	1A	InGenious Responsible Innovation for a Sustainable World	LIU-A1-011	58		Man	Sweden	Student	LIU	JUMP	Yes
LIU	1A	InGenious Responsible Innovation for a Sustainable World	LIU-A1-012	59		Woman	Lithuania	Student	KTU	Other	Yes
LIU	1A	InGenious Responsible Innovation for a Sustainable World	LIU-A1-013	60		Woman	Ireland	Student	Dublin City University	Other	Yes
LIU	1A	InGenious Responsible Innovation for a Sustainable World	LIU-A1-014	61		Man	France	Student	INSA Toulouse	JUMP	Yes
LIU	1A	InGenious Responsible Innovation for a Sustainable World	LIU-A1-015	62		Woman	Poland	Student	TUL	JUMP	Yes
LIU	1A	InGenious Responsible Innovation for a Sustainable World	LIU-A1-016	63		Man	Sweden	Student	LIU	JUMP	Yes
LIU	1A	InGenious Responsible Innovation for a Sustainable World	LIU-A1-017	64		Woman	France	Student	INSA Toulouse	JUMP	Yes
LIU	1A	Business modelling in the circular economy	LIU-A2-001	65		Man	Ireland	Student	Dublin City University	Other	Yes
LIU	1A	Business modelling in the circular economy	LIU-A2-002	66		Woman	France	Student	INSA Toulouse	JUMP	Yes
LIU	1A	InGenious - Sustainable Cities and Communities – cross disciplinary project - 799G60	LIU-A3-001	67		Woman	Belgium	Student	University of Liège	Other	Yes
LIU	1A	InGenious - Sustainable Cities and Communities – cross disciplinary project - 799G60	LIU-A3-002	68		Woman	Canada	Student	Carleton University	Other	Yes

TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-043	149	Man	Germany	Student	TUHH	Other	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-044	150	Man	Germany	Student	TUHH	Other	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-045	151	Man	Finland	Student	TUNI	Other	No
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-046	152	Man	Poland	Student	TUL	JUMP	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-047	153	Woman	Poland	Student	TUL	JUMP	No
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-048	154	Woman	Poland	Student	TUL	JUMP	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-049	155	Man	Italy	Student	UniTrento	JUMP	No
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-050	156	Man	Lithuania	Student	KTU	Other	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-051	157	Man	Lithuania	Student	KTU	Other	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-052	158	Man	Poland	Student	TUL	JUMP	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-053	159	Man	Poland	Student	TUL	JUMP	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-054	160	Woman	Poland	Student	TUL	JUMP	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-055	161	Woman	Italy	Student	UniTrento	JUMP	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-056	162	Woman	Poland	Student	TUL	JUMP	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-057	163	Woman	Poland	Student	TUL	JUMP	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-058	164	Woman	Poland	Student	TUL	JUMP	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-059	165	Woman	Lithuania	Student	KTU	Other	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-060	166	Man	Poland	Student	TUL	JUMP	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-061	167	Woman	Poland	Student	TUL	JUMP	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-062	168	Man	Poland	Student	TUL	JUMP	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-063	169	Woman	Poland	Student	TUL	JUMP	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-064	170	Woman	Poland	Student	TUL	JUMP	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-065	171	Woman	Poland	Student	TUL	JUMP	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-066	172	Man	Poland	Student	TUL	JUMP	Yes
TUL	1A	EdVenture Quest: The Art of CBL through Cases	TUL-A-067	173	Man	Poland	Student	TUL	JUMP	No
UniTrento	1A	Basics of Social Challenges	UNITN-A-001	174	Woman	Italy	Student	UniTrento	JUMP	Yes
UniTrento	1A	Basics of Social Challenges	UNITN-A-002	175	Man	Germany	Student	University Trier	Other	Yes
UniTrento	1A	Basics of Social Challenges	UNITN-A-003	176	Man	Iran	Student	UniTrento	JUMP	Yes
UniTrento	1A	Basics of Social Challenges	UNITN-A-004	177	Man	Italy	Student	UniTrento	JUMP	Yes
UniTrento	1A	Basics of Social Challenges	UNITN-A-005	178	Woman	Italy	Student	UniTrento	JUMP	Yes
UniTrento	1A	Communicating Innovation	UNITN-A-006	179	Man	Nigeria	Student	UniTrento	JUMP	Yes
UniTrento	1A	Communicating Innovation	UNITN-C-001	180	Man	Italy	Non-Academic Staff	No affiliation	Other	Yes
UniTrento	1A	Communicating Innovation	UNITN-A-007	181	Man	Italy	Student	UniTrento	JUMP	Yes
UniTrento	1A	Creativity and Collective Creativity in Organizations	UNITN-A-008	182	Man	Italy	Student	UniTrento	JUMP	Yes
UniTrento	1A	Creativity and Collective Creativity in Organizations	UNITN-A-009	183	Man	Italy	Student	UniTrento	JUMP	Yes
UniTrento	1A	Creativity and Collective Creativity in Organizations	UNITN-A-010	184	Man	Italy	Student	UniTrento	JUMP	Yes
UniTrento	1A	Creativity and Collective Creativity in Organizations	UNITN-A-011	185	Man	Italy	Student	UniTrento	JUMP	Yes
UniTrento	1A	Creativity and Collective Creativity in Organizations	UNITN-A-012	186	Man	Slovakia	Student	Newton University	Other	Yes
UniTrento	1A	Creativity and Collective Creativity in Organizations	UNITN-A-013	187	Man	Pakistan	Student	UniTrento	JUMP	Yes
UniTrento	1A	Creativity and Collective Creativity in Organizations	UNITN-A-014	188	Woman	Bonia-Herzegovina	Student	UniTrento	JUMP	Yes
UniTrento	1A	Creativity and Collective Creativity in Organizations	UNITN-A-015	189	Woman	Italy	Student	UniTrento	JUMP	Yes
UniTrento	1A	Creativity and Collective Creativity in Organizations	UNITN-A-016	190	Man	Italy	Student	UniTrento	JUMP	Yes
UniTrento	1A	Creativity and Collective Creativity in Organizations	UNITN-A-017	191	Woman	Poland	Student	Univeristy of Gdansk	Other	Yes
UniTrento	1A	Creativity and Collective Creativity in Organizations	UNITN-A-018	192	Man	Germany	Student	University Trier	Other	Yes
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-001	193	Man	Spain	Student	UAB	Other	No
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-002	194	Man	Italy	Student	UniTrento	JUMP	No
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-003	195	Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-004	196	Man	Sweden	Student	LiU	JUMP	No
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-005	197	Man	France	Student	INSA Toulouse	JUMP	No
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-006	198	Man	Italy	Student	UniTrento	JUMP	Yes
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-007	199	Woman	France	Student	INSA Centre Val de Loire	Other	Yes
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-008	200	Man	Italy	Student	UniTrento	JUMP	Yes
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-009	201	Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-010	202	Man	Italy	Student	UniTrento	JUMP	Yes
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-011	203	Man	Lithuania	Student	KTU	Other	No
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-012	204	Woman	Italy	Student	UniTrento	JUMP	Yes
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-013	205	Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-014	206	Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-015	207	Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-016	208	Man	Poland	Student	TUL	JUMP	No
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-017	209	Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-018	210	Man	Lithuania	Student	KTU	Other	No
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-019	211	Man	Italy	Student	UniTrento	JUMP	Yes
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-020	212	Woman	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-021	213	Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining I	INSA-A-022	214	Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	The Great Ride	INSA-A-023	215	Woman	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	The Great Ride	INSA-A-024	216	Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	The Great Ride	INSA-A-025	217	Woman	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	The Great Ride	INSA-A-026	218	Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	The Great Ride	INSA-A-027	219	Woman	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	The Great Ride	INSA-A-028	220	Woman	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	The Great Ride	INSA-A-029	221	Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	The Great Ride	INSA-A-030	222	Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	The Great Ride	INSA-A-031	223	Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	The Great Ride	INSA-A-032	224	Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	The Great Ride	INSA-A-033	225	Woman	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	The Great Ride	INSA-A-034	226	Woman	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	The Great Ride	INSA-A-035	227	Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	The Great Ride	INSA-A-036	228	Man	France	Student	INSA Toulouse	JUMP	Yes

INSA Toulouse	1B	The Great Ride	INSA-A-037	229	Man	France	Student	INSA Toulouse	JUMP	Yes
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining II	INSA-A-005	230	Man	France	Student	INSA Toulouse	JUMP	not available yet
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining II	INSA-A-038	231	Man	Germany	Student	TUHH	Other	not available yet
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining II	INSA-A-006	232	Man	Italy	Student	UniTrento	JUMP	not available yet
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining II	INSA-A-039	233	Woman	France	Student	INSA Toulouse	JUMP	not available yet
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining II	INSA-A-010	234	Man	Italy	Student	UniTrento	JUMP	not available yet
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining II	INSA-A-040	235	Woman	Germany	Student	TUHH	Other	not available yet
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining II	INSA-A-014	236	Man	France	Student	INSA Toulouse	JUMP	not available yet
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining II	INSA-A-017	237	Man	France	Student	INSA Toulouse	JUMP	not available yet
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining II	INSA-A-041	238	Man	Lithuania	Student	KTU	Other	not available yet
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining II	INSA-A-020	239	Woman	France	Student	INSA Toulouse	JUMP	not available yet
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining II	INSA-A-042	240	Man	Lithuania	Student	KTU	Other	not available yet
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining II	INSA-A-043	241	Man	France	Student	INSA Toulouse	JUMP	not available yet
INSA Toulouse	1B	Multi-Agent Systems for Smart Machining II	INSA-A-044	242	Man	Lithuania	Student	KTU	Other	not available yet
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-001	243	Man	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-002	244	Woman	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-003	245	Woman	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-004	246	Man	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-005	247	Man	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-006	248	Man	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-007	249	Man	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-008	250	Man	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-009	251	Woman	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-010	252	Man	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-011	253	Man	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-012	254	Man	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-013	255	Woman	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-014	256	Man	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-015	257	Man	France	Student	Grenoble École de Management	Other	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-016	258	Man	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-017	259	Woman	South Korea	Student	Hanyang University	Other	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-018	260	Woman	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-019	261	Man	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-020	262	Man	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-021	263	Man	Portugal	Student	University of Aveiro	Other	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-022	264	Woman	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-023	265	Man	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-024	266	Man	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-025	267	Man	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-026	268	Man	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-027	269	Man	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-028	270	Woman	Portugal	Student	University of Aveiro	Other	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-029	271	Woman	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-030	272	Man	Sweden	Student	LIU	JUMP	Yes
LIU	1B	799G52 InGenious - Cross Disciplinary Project	LIU-A1-031	273	Woman	Sweden	Student	LIU	JUMP	Yes
TUL	1B	EdVenture Quest: The Art of CBL through Cases	TUL-A-01	274	Woman	Norway	Student	UIS	Other	Yes
TUL	1B	EdVenture Quest: The Art of CBL through Cases	TUL-A-02	275	Man	Lithuania	Student	KTU	Other	Yes
TUL	1B	EdVenture Quest: The Art of CBL through Cases	TUL-A-03	276	Man	Portugal	Student	University of Aveiro	Other	Yes
TUL	1B	EdVenture Quest: The Art of CBL through Cases	TUL-A-04	277	Woman	Portugal	Student	University of Aveiro	Other	Yes
TUL	1B	EdVenture Quest: The Art of CBL through Cases	TUL-A-05	278	Man	Lithuania	Student	KTU	Other	Yes
TUL	1B	EdVenture Quest: The Art of CBL through Cases	TUL-A-06	279	Man	Lithuania	Student	KTU	Other	Yes
TUL	1B	EdVenture Quest: The Art of CBL through Cases	TUL-A-07	280	Man	Lithuania	Student	KTU	Other	Yes
TUL	1B	EdVenture Quest: The Art of CBL through Cases	TUL-A-08	281	Man	Lithuania	Student	KTU	Other	No
TUL	1B	EdVenture Quest: The Art of CBL through Cases	TUL-A-09	282	Man	Lithuania	Student	KTU	Other	No
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-10	283	Man	Lithuania	Student	KTU	Other	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-11	284	Woman	Poland	Student	TUL	JUMP	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-12	285	Woman	Poland	Student	TUL	JUMP	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-13	286	Man	Lithuania	Student	KTU	Other	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-14	287	Man	Lithuania	Student	KTU	Other	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-15	288	Man	Poland	Student	TUL	JUMP	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-16	289	Man	Poland	Student	TUL	JUMP	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-17	290	Man	Lithuania	Student	KTU	Other	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-18	291	Woman	Poland	Student	TUL	JUMP	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-19	292	Man	Lithuania	Student	KTU	Other	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-20	293	Woman	Lithuania	Student	KTU	Other	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-21	294	Man	Poland	Student	TUL	JUMP	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-22	295	Woman	Portugal	Student	University of Aveiro	Other	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-23	296	Man	Poland	Student	TUL	JUMP	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-24	297	Man	Lithuania	Student	KTU	Other	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-25	298	Woman	Poland	Student	TUL	JUMP	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-26	299	Man	Poland	Student	TUL	JUMP	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-27	300	Man	Portugal	Student	University of Aveiro	Other	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-28	301	Man	Poland	Student	TUL	JUMP	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-29	302	Woman	Poland	Student	TUL	JUMP	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-30	303	Woman	Poland	Student	TUL	JUMP	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-31	304	Man	Lithuania	Student	KTU	Other	Yes
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-32	305	Woman	Lithuania	Student	KTU	Other	No
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-33	306	Man	France	Student	INSA Group	JUMP	No
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-34	307	Man	Spain	Student	UAB	Other	No
TUL	1B	Towards Smart Maintenance in Robotized Industrial Lines	TUL-A-35	308	Man	Lithuania	Student	KTU	Other	No

INSA Toulouse	1B	Innovation for sustainable water engineering and management	INSA-A-084	389	Man	Sweden	Student	LIU	JUMP	not available yet
INSA Toulouse	1B	Innovation for sustainable water engineering and management	INSA-A-085	390	Woman	Norway	Student	UIS	Other	not available yet
INSA Toulouse	1B	Innovation for sustainable water engineering and management	INSA-A-086	391	Man	Lithuania	Student	KTU	Other	not available yet
INSA Toulouse	1B	Innovation for sustainable water engineering and management	INSA-A-087	392	Man	France	Student	INSA Toulouse	JUMP	not available yet
INSA Toulouse	1B	Innovation for sustainable water engineering and management	INSA-A-088	393	Woman	Lithuania	Student	KTU	Other	not available yet
INSA Toulouse	1B	Innovation for sustainable water engineering and management	INSA-A-089	394	Man	Finland	Student	TUNI	Other	not available yet
INSA Toulouse	1B	Innovation for sustainable water engineering and management	INSA-A-090	395	Man	France	Student	INSA Toulouse	JUMP	not available yet
INSA Toulouse	1B	Innovation for sustainable water engineering and management	INSA-A-091	396	Man	Finland	Student	TUNI	Other	not available yet
INSA Toulouse	1B	Innovation for sustainable water engineering and management	INSA-A-092	397	Man	France	Student	INSA Toulouse	JUMP	not available yet

Deliverable report

D3.1. Intermediary summary report on the development and pilot implementation of min. 8 blended Micro-modules and 2 CBL projects focusing on innovation and entrepreneurship skills in Pilot 1 and recommendations for Pilot 2

Appendix 4
Educational Learning Opportunities Portfolio Pilot 1A & Pilot 1B

ELOs Portfolio Pilot 1A

Title	Type	Responsible Teacher	Mentors	Academic Year	Application start	Application end	Beginning	End	Format	ECTS	Pilot	Conception (new/existing)	State	Organization	Repetition	Co-design	Course description	Learning outcomes	Competency assessment methods	Total teachers	ELOs	Entrepreneurship	Innovation	Sustainability	Cross-disciplinary? (Yes=2/No=1)	Other main topic (if any, and relation with I&E/sustainability)	Thematic cluster	Alignment	External stakeholders involved? (Yes/No)	Type of external stakeholders	Role of external stakeholders	Stakeholder involvement continuity (reused?)	External stakeholders	Synchronicity	Digital tools	Technical & Pedagogical Innovation
Basics of Social Challenges	MM	Roberto Napoli	NA	2024-2025	#####	#####	#####	#####	Online	1	1A	Existing	Finished	UNINT	Yes, year 2026-2027	No	This course defines challenges and analyzes the major actors and institutions involved, along with the crucial role of students (their creativity and ability to turn good ideas into sound projects) in finding meaningful innovative solutions to real problems. Specifically, social challenges will be defined in class and experienced by students using the Engage-Investigate-Act approach applied in the ECIU (European Consortium of Innovative Universities) network.	Develop awareness of responsible innovation principles and sustainability challenges.	Class participation, final group work with ppt presentation	1		3	5	2	2	No	Responsible Entrepreneurship		No	NA	NA	NA		Synchronous	Moodle, Video	
Communicating Innovation	MM	Alessandro Rossi	NA	2024-2025	#####	#####	#####	#####	Online	1	1A	Existing	Finished	UNINT	Yes, year 2026-2027	No	This course equips participants with the communication techniques and strategies employed by entrepreneurs, innovators, and game-changers when presenting innovative ideas. A fundamental challenge faced at various stages of business development is conveying effectively the value of business ideas to stakeholders, customers, and investors through both oral and written communication. In this short course students will explore startup jargon concepts and techniques as they create a comprehensive communication strategy for an innovation project.	Strengthen transversal skills: collaboration, critical thinking, reflexivity, and systems thinking.	Class participation, final group work with ppt presentation	1		3	5	3	2	No	Responsible Entrepreneurship		No	NA	NA	NA		Mixed	Moodle, Video	
Creativity and Collective Creativity in Organizations	MM	Stefano Crella	NA	2024-2025	#####	#####	#####	#####	Online	1	1A	Existing	Finished	UNINT	Yes, year 2026-2027	No	This course is designed to explore the characteristics and challenges of creativity and collective creativity at work. In particular, the module encourages to move the main focus from individual creativity to forms of collective creativity (group or team creativity). Using different case studies, the course also aims to explore the mechanisms that can support collective creativity by design.	Reflect on their own entrepreneurial mindset and potential role in societal transitions.	Class participation and interaction	1		3	5	2	2	No	Responsible Entrepreneurship		No	NA	NA	NA		Synchronous	Moodle	

LIU

Title	Type	Responsible teacher	Mentors	Academic Year	Application start	Application end	Beginning	End	Format	ECTS	Pilot	Conception (new/existing)	State	Organization	Repetition	Co-design	Course description	Learning outcomes	Competency assessment methods	Total teachers	ELOs	Entrepreneurship	Innovation	Sustainability	Cross-disciplinary? (Yes=2/No=1)	Other main topic (if any, and relation with I&E/sustainability)	Thematic cluster	Alignment	External stakeholders involved? (Yes/No)	Type of external stakeholders	Role of external stakeholders	Stakeholder involvement continuity (reused?)	External stakeholders	Synchronicity	Digital tools	Technical & Pedagogical Innovation	
InGenious Responsible Innovation for a Sustainable World - 799G01	MM	Karin Wigger	NA	2024-2025	#####	#####	#####	#####	Online	3	1A	Existing	Finished	LIU	Yes, year 2025-2026	No	How can we innovate for the better? This course explores the concept of responsible innovation – innovations that aim to ethically and sustainably leverage technological progress to address societal needs while remaining within planetary boundaries. Through case-based learning, students will apply this concept in various situations and contexts while reflecting on the potential impacts of innovation, considering ethical and sustainable perspectives. Additionally, we will discuss how to organize the innovation process to implement responsible innovations.	After completing the course, students should be able to: understand and apply the concept of responsible innovation from different perspectives and contexts; explain and apply various perspectives to address ethical issues in the innovation process; explain and apply sustainability principles in an innovation context; motivate and reflect on the organization of responsible innovation	Individual written assignment (grading scale: Pass with Distinction, Pass, Fail); Active participation in digital meetings and workshops (grading scale: Pass, Fail)	1		4	4	5	2	No	Green Innovation		Yes	mining company	Providing	No			Mixed	Yes a variety	
Business modeling in the circular economy - ETE401	MM	Karl Eidebo	NA	2024-2025	#####	#####	#####	#####	Online	2	1A	Existing	Finished	LIU	Yes, year 2025-2026	No	Business modeling in the circular economy is something quite different than in the linear economy. Partners, stakeholders, and suppliers all must be taken into consideration when forming an innovative company with a circular business idea. This course covers the foundations of business models and sustainability in the light of business development. Then we move into practical exercises where you get to work with circular business models.	After successful completion of this course, student should be able to: Describe theories in circular economy, sustainability, and innovation; Explain central parts and theoretical models in business modeling; Apply a selection of theoretical models and frameworks for business modeling in circular economy	Individual assignments and group assignments	1		4	4	5	2	No	Responsible Entrepreneurship		No	NA	NA	NA		Mixed	Yes a variety		
InGenious Sustainable Cities and Communities – cross disciplinary project - 799G60	Challenge	Charlotte Norman	NA	2024-2025	#####	#####	#####	#####	Blended	5	1A	Existing	Finished	LIU	Yes, year 2025-2026	No	In this course, students will address challenges related to sustainable cities and communities by emphasizing ecological sustainability, localized economies, social justice, and well-being. Drawing on the principles of a degrowth economy, students will collaborate in interdisciplinary teams to carry out a forward-looking project focused on sustainable cities and communities.	After completing the course, the student should be able to: identify current challenges related to sustainable cities and communities and propose sustainable solutions by applying degrowth economic principles; develop and present sustainable and value-creating concepts for sustainable cities and communities; communicate sustainable concepts in writing and orally to stakeholders from diverse backgrounds; discuss and reflect on group processes and group dynamics in open innovation processes; reflect on their own learning process	Individual reflection and group assignments such as project plan and project report	1		5	4	5	2	No	Green Innovation		Yes	Södra forest owner association	Challenge provider	No			Mixed	Yes a variety	

TUL

Title	Type	Responsible Teacher	Mentors	Academic Year	Application start	Application end	Beginning	End	Format	ECTS	Pilot	Conception (new/existing)	State	Organization	Repetition	Codesign	Course description	Learning outcomes	Competency assessment methods	Total teachers	EU info	Entrepreneurship	Innovation	Sustainability	Cross-disciplinary? (Yes=2/No=1)	Other main topic (if any, and relation with I&E/sustainability)	Thematic cluster	Agreement	External stakeholders involved? (Yes/No)	Type of external stakeholders	Role of external stakeholders	Stakeholder involvement continuity (reused?)	External stakeholders	Synchronicity	Digital tools	Technical & Digital competences
Ditch it or pitch it - Selling yourself & your project	MM / Extracurricular	Marzena Stawicka	Marzena Stawicka	2024-2025	#####	#####	#####	#####	Online	2	1A	Existing	Finished	TUL	Yes, every semester	No	In the contemporary, quickly changing world one element seems constant – being a good communicator. This micro-module develops communication and self-presentation skills through fun techniques (SW's, Wheel of Life), pitching, peer learning and feedback, addressing labour market needs and learner well-being.	Successfully present one's strengths and accomplishments; Effectively communicate orally in formal and semi-formal academic and professional contexts. Initiate and maintain longer academic or professional conversations; Provide constructive feedback	Continuous assessment; self- and peer-evaluation; pitch presentation	1		5	3	3	2	No	Responsible Entrepreneurship		No	NA	NA	NA		Asynchronous or synchronous depending on group availability	MS Teams; Moodle	
EdVenture Quest: The Art of CBL through Cases	MM / Extracurricular	Magdalena Gaj	Magdalena Gaj, Joanna Mlinsz-Balczak	2024-2025	#####	#####	#####	#####	Blended	1	1A	Existing	Finished	TUL	Yes, every semester	No	This short course immerses learners in Challenge-Based Learning through real-world case scenarios to understand CBL principles and methodologies, foster creativity, collaboration and critical thinking, and design meaningful learning experiences.	Understand the philosophy and foundations of CBL; Cooperate effectively in a CBL learning environment; Apply CBL principles through case studies	Task completion (60%); Module 4 presentation and solution sketch (40%)	2		5	5	4	2	No	Green innovation		No	NA	NA	NA		Mixed	MS Teams	

INSA Toulouse

Title	Type	Responsible Teacher	Mentors	Academic Year	Application start	Application end	Beginning	End	Format	ECTS	Pilot	Conception (new/existing)	State	Organization	Repetition	Codesign	Course description	Learning outcomes	Competency assessment methods	Total teachers	EU info	Entrepreneurship	Innovation	Sustainability	Cross-disciplinary? (Yes=2/No=1)	Other main topic (if any, and relation with I&E/sustainability)	Thematic cluster	Agreement	External stakeholders involved? (Yes/No)	Type of external stakeholders	Role of external stakeholders	Stakeholder involvement continuity (reused?)	External stakeholders	Synchronicity	Digital tools	Technical & Digital competences
Quantum Communication	MM / Curricular	Katja Aufferet Georges Solo-Romero	NA	2024-2025	#####	#####	#####	#####	online	2	1A	Existing	Finished	INSA Toulouse	No	No	The course is a micro-module introducing students to the fundamentals of quantum communication and computing. It emphasizes technical proficiency in quantum telecommunications, algorithmic problem-solving, and innovation.	developping knowledge and skills in quantum communication protocols (like BB84) and quantum computing algorithms (like Grover's algorithm). Being able to implement and use simple quantum algorithm, in the context of computing or communication and to explain benefits of quantum computing. Students will enhance their understanding of quantum mechanics applications, telecommunications engineering, and algorithmic problem-solving. The course aims to foster innovative thinking and technical proficiency in emerging quantum technologies.	individual written exams	2		1	5	1	1	No	Digital Innovation		No	NA	NA	NA		Mixed	Moodle	
CARE	MM / Curricular	Thierry Morel, Eric Alata	NA	2024-2025	#####	#####	#####	#####	blended	2	1A	Existing	Finished	INSA Toulouse	Yes, year 2025-2026	No	Focus on connected health devices, remote medical monitoring, use of VR to disassemble sensors, data transmission and analysis, 3D scanning, teamwork in intercultural groups.	Discuss digital health (responsibility, informed consent, security); Describe functioning of connected medical devices; Implement algorithms to process sensor data. Work in intercultural teams and present results in English.	Several formative assessments will check the achievement of the learning objectives throughout the micro-module. The final assessment is the presentation at the end of the micro-module.	2		3	5	3	2	Digital health, telehealth, biomedical engineering	Digital Innovation		Yes	Research Lab Hospital	Field exploration	Yes		Mixed	Moodle	

NSA Toolboxes

Title	Type	Responsible Teacher	Mentors	Academic Year	Application start	Application end	Beginning	End	Format	ECTS	Pilot	Conception (new/existing)	State	Organisation	Repetition	Codesign	Course description	Learning outcomes	Competency assessment methods	Total teachers	# of Co-Teachers	Entrepreneurship	Innovation	Sustainability	Cross-disciplinary? (Yes/2 / No/1)	Other main topic (if any) and relation with Sustainability	Thematic cluster	# of external stakeholders	External stakeholders involved? (Yes/No)	Type of external stakeholders	Role of external stakeholders	Stakeholder involvement continuity (Yes/No?)	External stakeholders	Synchronicity	Digital tools	Additional Learning
Multi-Agent Systems for Smart Machining I (MassMa I)	MM / Curricular	Arno Carlo de Araujo Monteiro	NA	2025-2026	07/07/2025	15/10/2025	06/12/2025	31/10/2025	online	1	1B	New	Finished	NSA Toulouse	Yes, year 2025-2027	yes with LUT Trento	This course introduces multi-agent systems applied to smart machining, focusing on the use of distributed artificial intelligence for the modeling, control, and optimisation of manufacturing processes. Students explore fundamental concepts and methods related to intelligent manufacturing systems through applied examples in an engineering context.	Explain the basic principles of multi-agent systems and their application to smart machining. Analyse manufacturing problems using distributed and agent-based approaches. Apply multi-agent system concepts to model and improve intelligent machining processes. Interpret technical results related to the performance of smart manufacturing systems.	Practical assignments and exercises related to multi-agent systems and smart machining applications. Project-based work applying agent-based methods to manufacturing problems. Written or technical reports assessing students' understanding and application of course concepts. Participation in learning activities, contributing formatively to competency development.	1		1	4	2	2	Foundations of distributed artificial intelligence for manufacturing	Smart Manufacturing		Yes	Innovation Hub	Providing Case and Infrastructure for experimentation	Yes		Mixed	Mooh, Videos, Microconference	
The Great Ride	Extra-curricular	Lyska Bédouret	Romaine Vignère	2025-2026	01/09/2025	30/09/2025	08/12/2025	08/12/2025	onsite	0	1B	New	Finished	NSA Toulouse	TBD	No	The Great Ride (Entrepreneurial Mindset Workshop) is an interactive, card-based collective workshop that invites participants to explore the entrepreneurial mindset through discussion, reflection, and systems thinking. By collaboratively mapping key concepts, attitudes, and lessons related to entrepreneurship, participants develop a shared understanding of what it means to act entrepreneurially in diverse professional and societal contexts.	Explain the main stages and logic of an entrepreneurial journey (from idea to action), and describe how these stages can be iterative rather than linear. Map and connect key elements involved in "sensemaking" (resources, stakeholders, constraints, risks, and learning through trial and error) to build a shared representation with peers. Identify and discuss common blockers and levers (products, partners, support systems) that influence the progression from an intention of idea to a concrete project. Reflect on transfer by selecting at least two ways the entrepreneurial mindset can apply to their own context (e.g., association project, entrepreneurship, personal initiatives), and justify these choices.	None (post-curricular activity during a Forum)	2		0	4	4	2	None	Responsible Entrepreneurship		Yes	Entrepreneurship support organisation	Co-animation	Yes		Synchronous	None	
Multi-Agent Systems for Smart Machining II (MassMa II)	Challenge / Curricular	Arno Carlo de Araujo Monteiro	Paolo Boselli	2025-2026	08/10/2025	06/12/2025	01/12/2025	20/02/2026	blended	2	1B	New	Ongoing	NSA Toulouse	Yes, year 2025-2027	yes with LUT Trento	This micro-module focuses on advanced applications of multi-agent systems in smart machining, addressing the modeling, coordination, and optimisation of complex manufacturing systems. Building on foundational concepts, students explore distributed artificial intelligence approaches to improve decision-making and performance in intelligent manufacturing contexts.	Identify key components of the entrepreneurial ecosystem (stakeholders, resources, constraints, opportunities).	Project-based work applying distributed AI methods to smart machining problems. Technical reports or written assignments assessing analysis and application of course concepts. Participation in learning activities, used as a formative assessment component.	2		1	4	2	2	Advanced distributed artificial intelligence for manufacturing systems	Smart Manufacturing		Yes	Innovation Hub	application context provider	Yes		Mixed	Mooh, Videos, Microconference	
Shape the future of mobility with foresight	Challenge / Curricular	Kolja Aufferet, George Soto-Romero	NA	2025-2026	19/11/2025	29/01/2026	19/01/2026	13/02/2026	blended	3	1B	New	Finished	NSA Toulouse	TBD	Yes, opportunity identified for collaboration with LAU (2025-2027)	This challenge explores how mobility could evolve by 2070 using foresight methods. Students will analyse past trajectories, current trends, stakeholder perspectives, and cultural biases to deconstruct existing narratives and build new, desirable scenarios for sustainable mobility. The programme starts with an on-site mobility week at NSA Toulouse, followed by three weeks of online teamwork in small international groups. Participants interact with experts, discuss "wild cards" and catastrophe scenarios, and compare mobility solutions between France and their home countries. The challenge can be followed in English, Spanish, or German.	Analyse long-term mobility systems by examining historical trajectories, current trends, stakeholder perspectives, and socio-cultural assumptions shaping mobility models. Apply foresight and scenario-building methods to explore alternative futures for mobility, including desirable, disruptive, and risk-based scenarios. Collaborate effectively in international and multidisciplinary teams to co-construct shared analyses and future-oriented mobility proposals. Critically reflect on sustainability, innovation, and societal impacts of mobility choices, comparing contexts across countries and cultures.	Group project work assessed on the basis of the quality of the collective analysis and the relevance of the future mobility scenarios developed. Oral group presentation of foresight scenarios and conditions, delivered at the end of the challenge and assessed by the teaching team and invited experts. Formative feedback provided throughout the challenge during synchronous sessions and expert interactions. Peer interaction and collaboration as an implicit assessment dimension. Linked to teamwork in international and multidisciplinary groups.	2		2	4	5	2	None	Responsible Entrepreneurship		Yes	External experts	Providing Case	Yes		Mixed	Mooh, Microconferences	
Innovation for sustainable water engineering and management	MM / Extra-curricular	Christelle Guapa	Antonin Azais, Yoanné Bessière	2025-2026	01/12/2025	05/01/2026	28/01/2026	28/02/2026	blended	3	1B	New	Ongoing	NSA Toulouse	TBD	No	This course focuses on innovation in sustainable water engineering and management, addressing current and future challenges related to water resources, infrastructure, and governance. Students explore technical, environmental, and societal dimensions of water management through case studies and applied exercises, with an emphasis on sustainable and innovative solutions in engineering contexts.	Explain key challenges in sustainable water engineering and management, including technical, environmental, and societal aspects. Analyse real-world water management cases using engineering and sustainability-oriented perspectives. Evaluate innovative approaches and solutions for sustainable water systems in relation to their feasibility and impacts. Apply engineering knowledge to propose or assess strategies for improved and sustainable water management.	Case study analysis assessed through written reports or structured assignments. Project-based work (individual or group), focusing on innovative solutions for sustainable water management. Oral presentations of analyses or proposed solutions. Participation in learning activities and discussions, contributing formatively to competency development.	3		2	5	5	2	Water resources management and environmental engineering	Green Innovation		No	NA	NA	NA	NA	Mixed	Mooh, Microconferences	

Deliverable report

D3.1. Intermediary summary report on the development and pilot implementation of min. 8 blended Micro-modules and 2 CBL projects focusing on innovation and entrepreneurship skills in Pilot 1 and recommendations for Pilot 2

Appendix 5

Students' feedback results UniTrento

I&E Studies Course Feedback

The I&E Studies course is a setting where we experiment with teaching methodologies, and try to have lectures that are more participative. This year, we've also tried to structure the mentoring process in six phases, so that hopefully the process felt more guided.

We'd like to ask you to give us some feedback on the course so that we can understand how to proceed in the next years.

Thank you for your cooperation!

Informed consent

If you agree to collect your answers, they will be used to measure students' satisfaction and exclusively for research purposes.

The data collected are anonymous and not associated with your personal data.

The only people who will be able to see the answers are:

- Maurizio Marchese (Associate professor, University of Trento)
- Lorenzo Angeli (Assistant professor, University of Trento)
- Stefano Turrini (Research fellowship holder, University of Trento)
- Jessica Lucchetta (PhD student, University of Trento)

All the collected information will be treated in compliance with the European regulation on the protection of personal data (GDPR, EU Regulation 2016/679).

As the form is anonymous, we cannot remove your answers after you have confirmed and sent the form, because we have no way to associate the answers with a specific person.

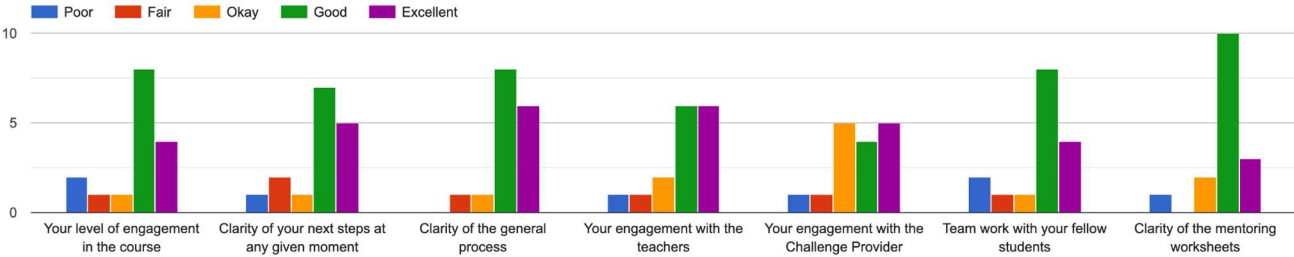
If you provide your email address for a follow-up interview with us, your answers can be deleted at any time by sending an email to jessica.lucchetta@unitn.it

If you have some doubts or questions, contact lorenzo.angeli@unitn.it cc jessica.lucchetta@unitn.it

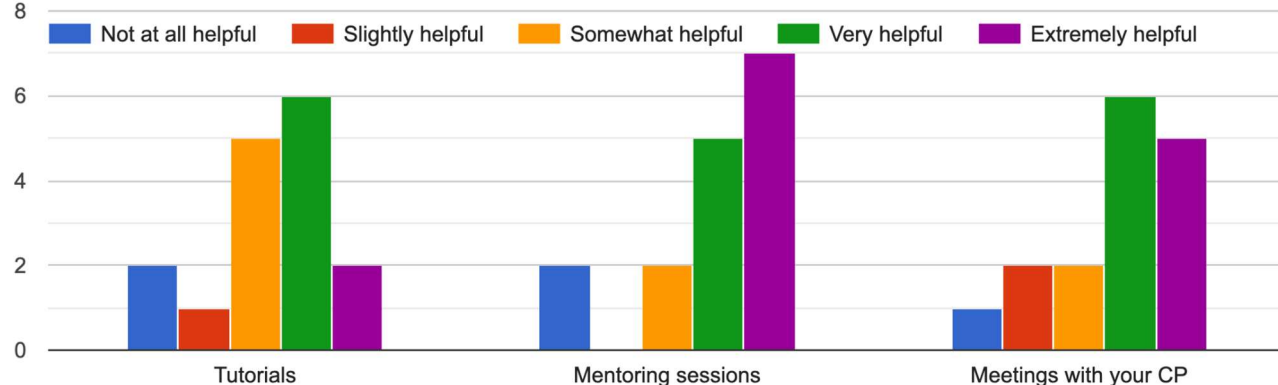
Course Feedback

16 responses

Please evaluate your course experience along the following dimensions



How effective were the following activities in helping you tackle your group project?



Open Questions

16 responses

Summary of responses :

1) Please explain if and why how we conducted the course satisfied you

- **Mentoring sessions:** Were highly valued, described as useful, helpful for projects, keeping on track, and providing advice and availability. However, one respondent found the mentoring unnecessary and received little guidance.
- **Course structure and methodology:** The challenge-based work, clear deliverables, course structure, and methodology were satisfying, allowing application of knowledge to real-world scenarios and providing a safe, comprehensive environment for learning business methods and new ways to approach problems.
- **Real-world experience:** Working with a real company, having a real problem to solve, and engaging with external stakeholders was a good experience. One respondent felt the Challenge Partner was more interested in free consulting than a learning experience.
- **Tutorial sessions:** One person expected tutorials to offer more concrete, step-by-step guidance rather than feeling like workshops, and felt unsupported in learning methods. Another suggested the challenge and tutorials felt slow-paced and they lost interest.
- **Flexibility and engagement:** The course was satisfying because it allowed doing university work while visiting challenge providers real infrastructures, and provided freedom to apply knowledge. One person found it difficult to stay engaged as the content did not capture their interest.

2) Please explain what was the most problematic aspect of the course for you

- **Challenge Partner (CP) Issues:** Difficulties understanding the real expectations, unclear challenge descriptions leading to initial confusion, and lack of interest or support from companies, with one company abandoning a team.
- **Team Dynamics and Collaboration:** Issues with non-responsive group members and coordinating with teammates who had different work styles, suggesting a need for a midpoint check for seriousness.
- **Mentorship and Guidance:** Some found mentorship worthless or unhelpful, with comments like "keep digging," and felt the tutorials lacked useful instructions, requiring them to work mostly on their own.
- **Course Structure and Engagement:** Concerns about the schedule being chaotic or lessons being infrequent (every two weeks), and some content failing to capture interest.
- **Language Barrier:** The language barrier posed a difficulty, especially for interviews, as most students were foreigners.

3) Please explain if you would propose this methodology again in the next year, and indicate strengths and weaknesses

- **Recommendation for reuse:** The majority of respondents would propose using the Challenge-Based Learning (CBL) methodology again, noting its effectiveness and alignment with the course's goals.
- **Key Strengths:** The main strengths highlighted include the mentoring sessions, the hands-on challenge-based learning approach, the multidisciplinary teams, real industry engagement, development of soft skills, and contact with a real work environment. Students felt supported by teachers and appreciated the clear weekly structure.
- **Areas for Improvement (Weaknesses):** The primary weaknesses mentioned are the need for clearer and more structured tutorials (e.g., on user research and data gathering), uneven workload within teams, the initial group formation process, and ensuring companies provide very clear challenge descriptions.
- **Alternative Suggestion:** One response suggested exploring a different approach where students find some needs to work on, which could facilitate final idea/product development.
- **Contrarian View:** One respondent suggested removing the course, stating it overlaps with the first year and the EIT summer school.

4. Would you like to be interviewed on your experience? Please leave your email.

5 responses - 3 No, 2 Yes



Joint University Challenge-based
Minor Program for Future Generation
of Innovative Entrepreneurs

Deliverable report

D3.1. Intermediary summary report on the development and pilot implementation of min. 8 blended Micro-modules and 2 CBL projects focusing on innovation and entrepreneurship skills in Pilot 1 and recommendations for Pilot 2

Appendix 6

Educational Experience Evaluation Framework - Students' feedback survey template

Student feedback: Your experience matters!

This questionnaire aims to gather your feedback on the Micro-module and/or Challenge you attended. The learning activity is a part of a European Project: JUMP (Joint University challenge-based Minor Program).

Your contribution will help us improve the micro-modules and challenge projects and co-create a European learning pathway in responsible innovation and entrepreneurship. Responding to this survey will take about 10 minutes.

Data Protection and Consent (GDPR)

This survey is anonymous.

No personal data will be collected unless you voluntarily choose to share your email address at the end of the questionnaire to receive updates about the JUMP project (optional).

Any personal data you provide will be stored securely, used exclusively for the purposes you explicitly consented to, and will not be shared with third parties outside the project consortium. You can request deletion of your data at any time by contacting the local project manager ([[local project manager e-mail](#)]). By continuing, you confirm that you understand and agree with these terms.

* Mandatory

General information:

Q1. Home institution*

- University of Trento
- Linköping University
- Lodz University of Technology
- INSA Toulouse
- Other

Q2. If other, please indicate your home institution below: *

Q3. What is your main field of study*

- Civil / Environmental / Water Engineering
- Chemical / Process / Materials Engineering
- Mechanical Engineering
- Electrical / Electronic / Automation Engineering
- Computer Science / Software / IT
- Mathematical Modeling / Data Science / AI
- Physics / Natural Sciences
- Business / Management / Economics
- Design / Architecture
- Medicine / Health Sciences
- Other

Q4. If other, please specify below: *

Share your Feedback on your Experience

Q5. What type(s) of learning activity did you participate in? *

- Micro Module
- One Challenge
- One Micro Module and One Challenge
- Several Micro Modules
- Several Challenges
- Several Micro Modules and Challenges

If you followed One Challenge or Micro Module: Share your Feedback on your Experience (Q6.1)

If you followed several courses: Share your feedback on your learning experiences

In this survey, you are asked to give your feedback about each of the different courses you followed (Q6.2)

Q6.1. Please indicate the title of the course you participate in? *

Q6.2. To begin with, indicate below the title of the first course you are going to evaluate? *

- CARE -Medical Connected Sensors and Virtual Reality (INSA Toulouse, 03/03/2025 - 30/05/2025)
- Quantum communication and computing - An introduction (INSA Toulouse, 03/02/2025 - 31/05/2025)
- Green Innovators (INSA Toulouse, 03/03/2025 - 31/05/2025)
- VESACCO (INSA Toulouse, 03/03/2025 -31/05/2025)
- Multi-Agent Systems for Smart Machining I
- InGenious Responsible Innovation for a Sustainable World - 799G61 (Linköping University, 06/02/2025 - 17/04/2025)
- InGenious - Sustainable Cities and Communities – cross disciplinary project - 799G60 (Linköping University, 21/02/2025-17/04/2025)
- Business modelling in the circular economy - ETE401 (Linköping University, 10/02/2025 - 07/03/2025)
- Ditch it or pitch it - Selling yourself & your project (University of Technology of Lodz, 31/03/2025 - 30/06/2025)
- EdVenture Quest: The Art of CBL through Cases (University of Technology of Lodz, 08/04/2025 - 29/04/2025)
- Basics of Social Challenges (UniTrento, 17/02/2025 - 31/05/2025)
- Communicating Innovation (UniTrento, 17/02/2025 - 30/05/2025)
- Creativity and Collective Creativity in Organizations (UniTrento, 17/02/2025 - 30/05/2025)
- Other

Q7. If other, please indicate the title of the course you participated in below: *

Q8. How is this course integrated into your studies? *

- a compulsory part of the study program
- an elective course
- extracurricular course, outside the program of study
- prerequisite course
- part of an extracurricular learning pathway
- Other

Q9. If other, please specify *

Q10. What motivated you to choose this course? Please select all that apply *

- I was interested in the topic
- I wanted to improve specific skills (e.g. teamwork, innovation, etc.)

- I wanted to work on real-world challenges
- I needed credits for my study programme
- A teacher or staff member recommended it
- I saw it as an opportunity to work in an international context
- I was curious about this new type of learning (e.g. CBL, hybrid)
- It fits well into my academic or career path
- Other

Q11. If other, please specify *

Q12. Indicate your opinion about the following statements: *

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
The instructions were clear from the start					
Learning resources were easily accessible (document, learning platform, tools)					
The workload was appropriate for the expected duration					
The digital tools used supported my learning experience					

Q13. Indicate your opinion about the following statements: *

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
The content was engaging and relevant					
The activities allowed me to apply what I learned					
The guidance and support (teachers, mentors, etc) were helpful					
The assessment process (feedback, grading etc.) helped me improve my learning					

Share your Feedback on your Knowledge, Skills & Mindset Development

Q48. Before this experience, to what extent had you already learned about or practiced the following in your studies? (1 = Not at all, 5 = Very much)

	1	2	3	4	5
Responsible Innovation					
Entrepreneurial mindset					
Complex problem solving					
Teamwork					
Intercultural communication					
Learning reflection and self-awareness					

Q49. Did this experience help you to develop or improve the following skills? (1 = Not at all, 5 = Very much)

	1	2	3	4	5
Responsible Innovation					
Entrepreneurial mindset					
Complex problem solving					
Teamwork					
Intercultural communication					
Learning reflection and self-awareness					

Share your Feedback on your Overall Experience

Q50. Indicate your opinion about the following statements (1 = Not at all, 5 = Very much) *

	1	2	3	4	5
I felt engaged in the learning experience					
This module/project inspired me to learn differently					
I would recommend this experience to other students					

Final Thoughts – Your Voice Counts!

Q51. What did you find most valuable or different in this experience compared to your other learning experiences?

Q52. What aspects could be improved?

Stay connected!

Q53. Would you like to “jump” deeper into our project and continue your experience with other modules/challenges that are part of the JUMP pathways?

- Yes
- No

Q54. If Yes, please indicate your email address below:

Q55. Would you like to receive updates about the ECIU JUMP project (e.g. future opportunities, events, publications)?

- Yes
- No

Q56. If Yes, please indicate your email address below:

Deliverable report

D3.1. Intermediary summary report on the development and pilot implementation of min. 8 blended Micro-modules and 2 CBL projects focusing on innovation and entrepreneurship skills in Pilot 1 and recommendations for Pilot 2

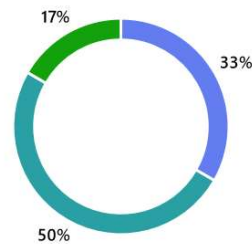
Appendix 7

Students' feedback results survey EEE Pilot1

1. Home institution (0 point)

[En savoir plus](#)

● University of Trento	2
● Linköping University	0
● Lodz University of Technology	3
● INSA Toulouse	0
● Other	1



2. If other, please indicate your home institution below :

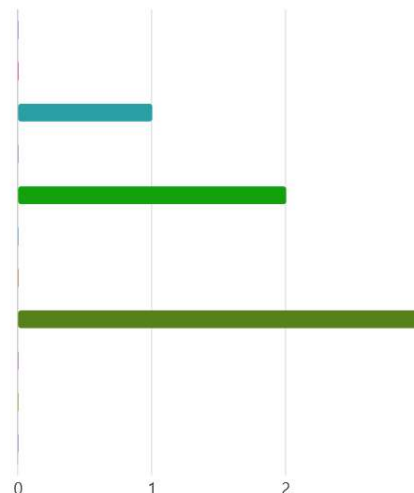
1 responses

Tampere University of Applied Sciences

3. What is your main field of study? (0 point)

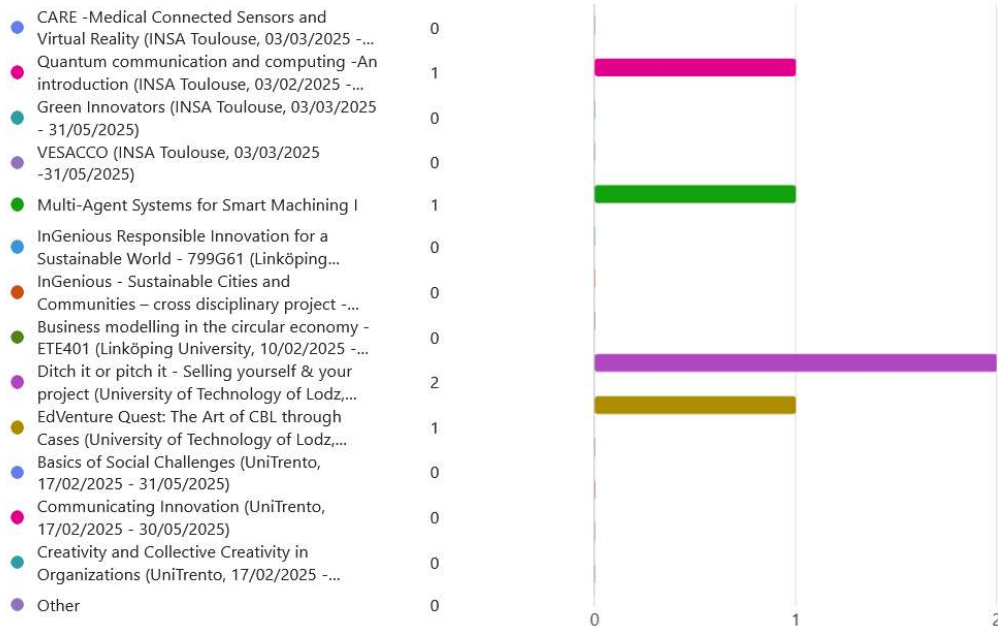
[En savoir plus](#)

● Civil / Environmental / Water Engineering	0
● Chemical / Process / Materials Engineering	0
● Mechanical Engineering	1
● Electrical / Electronic / Automation Engineering	0
● Computer Science / Software / IT	2
● Mathematical Modeling / Data Science / AI	0
● Physics / Natural Sciences	0
● Business / Management / Economics	3
● Design / Architecture	0
● Medicine / Health Sciences	0
● Other	0



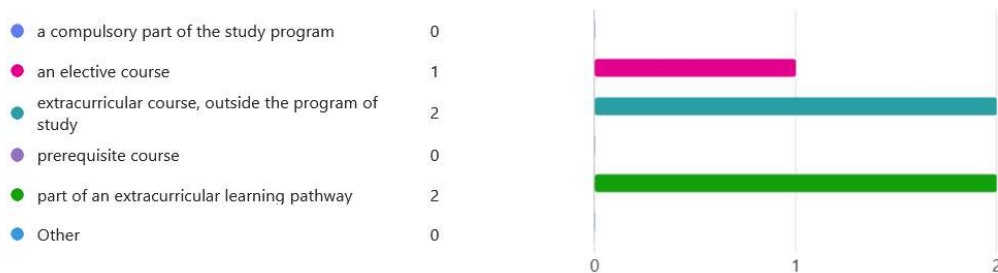
6. Please indicate the title of the course you participated in. (0 point)

[En savoir plus](#)



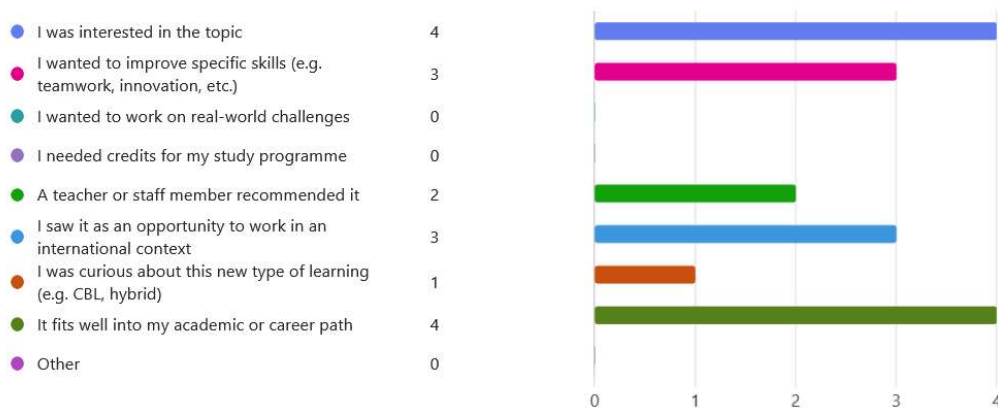
8. How is this course integrated into your studies? (0 point)

[En savoir plus](#)



10. What motivated you to choose this course? Please select all that apply (0 point)

[En savoir plus](#)

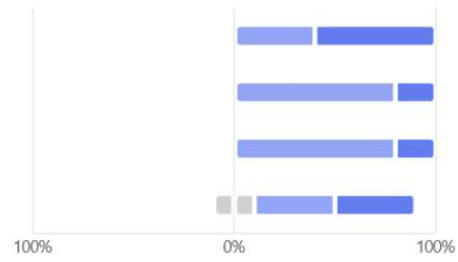


12. Indicate your opinion about the following statements: (0 point)

[En savoir plus](#)

Strongly disagree
 Disagree
 Neutral
 Agree
 Strongly agree

- The instructions were clear from the start
- Learning resources were easily accessible (document, learning platform, tools)
- The workload was appropriate for the expected duration
- The digital tools used supported my learning experience

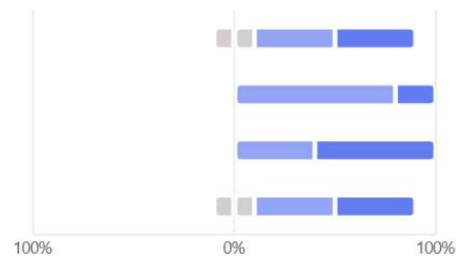


13. Indicate your opinion about the following statements: (0 point)

[En savoir plus](#)

Strongly disagree
 Disagree
 Neutral
 Agree
 Strongly agree

- The content was engaging and relevant
- The activities allowed me to apply what I learned
- The guidance and support (teachers, mentors, etc) were helpful
- The assessment process (feedback, grading etc.) helped me improve my learning

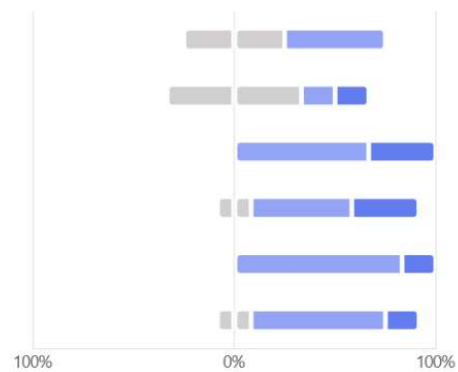


48. Before this experience, to what extent had you already learned about or practiced the following in your studies? (1 = Not at all, 5 = Very much)
(0 point)

[En savoir plus](#)

1
 2
 3
 4
 5

- Responsible Innovation
- Entrepreneurial mindset
- Complex problem solving
- Teamwork
- Intercultural communication
- Learning reflection and self-awareness



49. Did this experience help you develop or improve the following skills? (1 = Not at all, 5 = Very much) (0 point)

[En savoir plus](#)

● 1 ● 2 ● 3 ● 4 ● 5

Responsible Innovation

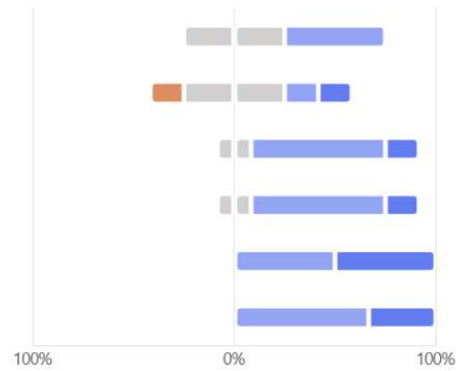
Entrepreneurial mindset

Complex problem solving

Teamwork

Intercultural communication

Learning reflection and self-awareness



50. Indicate your opinion about the following statements (1 = Not at all, 5 = Very much) * (0 point)

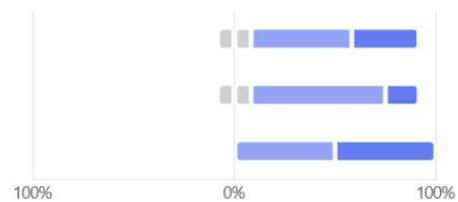
[En savoir plus](#)

● 1 ● 2 ● 3 ● 4 ● 5

I felt engaged in the learning experience

This learning experience inspired me to learn differently

I would recommend this experience to other students



×

51. What did you find most valuable or different in this experience compared to your other learning experiences?

4 Réponses

ID ↑	Nom	Réponses
1	anonymous	Being able to a lot of practices and actually apply the things that we learn from the sessions.
2	anonymous	Learning in international env with people from a different background
3	anonymous	The team work and flexible pace of learning
4	anonymous	A complex understanding of the topic

52. What aspects could be improved?

3 Réponses

ID ↑	Nom	Réponses
1	anonymous	Nothing specific.
2	anonymous	short exchanges (few days - one week) would be nice
3	anonymous	Somehow encourage more the people to engage. Inmy eyes the teacher has tried everything to get them actively participate, so I don't know how could have that been better,but to my taste and learning experience it was silent classroom, no initiation from the students.