A3.1, O2: Team Formation – Summary (Pilots 2-5)

Beneficiaries

- Aalborg University, Denmark
- Dublin City University, Ireland
- Kaunas University of Technology, Lithuania
- Linköping University, Sweden
- Tampereen Korkeakoulusäätiö sr, Finland
- Hamburg University of Technology, Germany
- Universidade de Aveiro, Portugal
- Universitat Autonoma de Barcelona, Spain
- University of Stavanger, Norway
- Universita degli Studi di Trento, Italy
- Institut National des Sciences Appliquées de Toulouse, France
- University of Twente, The Netherlands

Abstract

This report summarizes pilot 2, 3, 4 and 5 regarding the process of team formation and the implementation process of challenges and strategic challenges in pilot 4. It also focuses on the strategies of student motivation and describes some policies to incentivize more students to participate in challenges.

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Symbols, abbreviations and acronyms

AAU	Aalborg University, Denmark
DCU	Dublin City University, Ireland
EC	European Commission
ECIU	European Consortium of Innovative Universities
KTU	Kaunas University of Technology, Lithuania
LiU	Linköping University, Sweden
TAU	Tampereen Korkeakoulusäätiö sr, Finland
TUHH	Hamburg University of Technology, Germany
UA	Universidade de Aveiro, Portugal
UAB	Universitat Autonoma de Barcelona, Spain
UiS	University of Stavanger, Norway
UNITN	Universita degli Studi di Trento, Italy
UT	University of Twente, Netherlands

1   Objectives

The objectives of this report are to:

Summarize the process of team formation during Pilot 2,3, 4 and 5 ECIU U-project in terms of roles and responsibilities, summarize the introduction of strategic challenges and summarize the factors that motivate students to join challenges and describe policies to incentivize more students.

2   Introduction

This report gives an overview of team formation to present engagement in challenge-based activities in Pilot 2,3,4 and 5. In addition, the process of team members' engagement in Nano, Mini and Standard challenges is described. Students were interviewed in pilot 4 to find strategies to engage more students in future challenges.

2.1   The Roles of CBL-team members

One of the most crucial parts of CBL experiences is to have a committed team that works within an environment that facilitates a constructive dialogue environment. In order to have a common understanding within a team (students, teamcher(s), and challenge providers) and commitments in the work process, it is suggested to create an agreement on the role descriptions in the team as outlined in the next section all team members should take an active part and have some basic roles outlined in all three phases of the Challenge Learning Framework – Engage, Investigate and Act. The team identifies the big idea together to gain a deeper multidisciplinary understanding of what potential competences may be required from any experts. They then work together to formulate the essential questions, which connect their previous experiences towards the big idea. The question should be achievable through research. All team members should give their consent to the copyright of all learning content and media produced during the challenges, which can be later used by a public audience (Appendix 2) (Apple inc. 2010). For a more detailed description of the roles of CBL team members, see the Pilot 4 report.

2.2 Team members´ roles of Challenge based-learning activities:

In Nano, Mini and Standard challenges, in addition to the admission criteria, the team composition of **students** should be based on members´ educational background, personal interests, gender, ethnicity, age, experience, and skillsets. The **challenge provide**r (companies, businesses, and organizations) makes a commitment through the signed agreement to participate in all activities scheduled with students and should design a challenge that is related to work relevant environments. The **challenge coordinator** is the immediate contact person that facilitates communication between the challenge provider and all team members. A **teamcher** has the responsibilities of establishing the CBL process with their team, supporting learners throughout the challenge, ensuring all members take part in all phases of CBL, maintaining contact with the Challenge Provider and assessing the work of the learners. Finally, external **stakeholders** from public or private business sectors should be defined as learners and active participants involved in all Engage-Investigate-Act stages as well. For a full description of roles within CBL activities and a list of Competencies and disciplines of team-members see the pilot 4 final report.

2.3 Team members engagement in Nano, Mini and Standard

In order to get team members engaged during Nano, Mini and Standard challenges it is recommended to ensure from the outset that teamcher's familiarize students with the CBL framework and get to know one another. The Challenge provider then sets out the challenge and team members´ roles are defined and agreed upon, by the signing of the CBL Team Agreement. Students will present the work process at least once after each phase of the three phases of CBL and deliver a report or/and video solution and video reflection at the end of phase three of CBL. Further details have been described in the pilot 4 final report.

2.4 Summary of a Strategic Challenge

The Strategic Challenge was chosen to be a six-month format that involves writing a master's thesis and offers a framework in which the progress of challenge and master's theses are expected to go hand in hand. Figure 1 shows the framework of the Strategic Challenge, including the three phases Engage, Investigate, and Act.
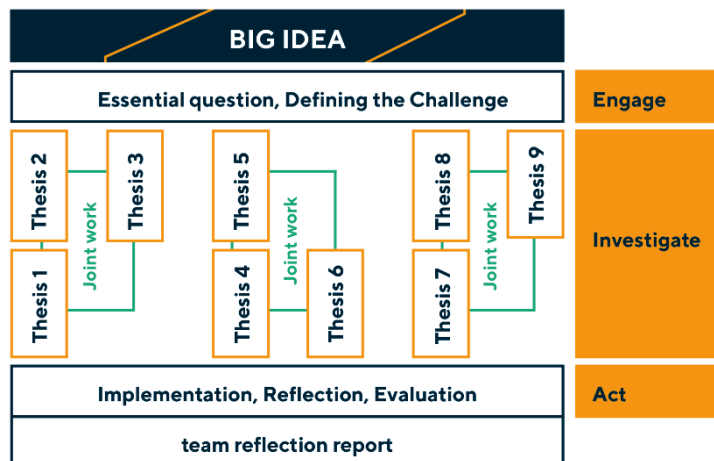
Figure 1 Strategic Challenge Framework (Stahlberg et al. 2022).

All three phases are accompanied by continual reflection and documentation. The Strategic Challenge ends with a Closing Event where student teams present their results to a larger audience of Challenge Provider, stakeholders, CBL experts, supervisors, and other invited guests. For further details of the evaluation, team formation in the 2022 Strategic Challenge and its timeframe, see the final pilot 4 report.

2.4 Summary of reflections on student experiences of CBL and policies to incentivize greater student participation in CBL

The following reflections and policies to incentivize greater student participation in CBL are based on an open forum discussion at the WP3.1 bi-weekly meeting. They represent students who have experienced CBL as part of both their local curriculum (e.g., as part of a master's program) and as part of an external challenge organized by one of the partner universities of the ECIU. The reflections show that students like to choose their own challenge providers and use their own personal professional and social networks to reach out to CPs. They enjoy working with the CBL framework and its connection to professional skills and working in multidisciplinary teams and if possible, they like to be able to meet and work in person for at least part of the challenge. Therefore, more travel opportunities would incentivize greater student participation as would more team building activities and connecting with student

communities, based on their areas of interest. Finally, there was some discussion about the lack of grading as a motivational factor and this means that academic recognition in the form of ECTS is important and should be used towards degree programs. For full details of the student reflections and policies to incentivize greater participation see the final pilot 4 report.

3   Bibliography

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Acknowledgements

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