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CT.Uni Final Conference: Creative Learning Explored: Recommendations and Practice

Lublin

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SLOVAK UNIVERSITY OF TECHNOLOGY IN BRATISLAVA FACULTY OF ARCHITECTURE AND DESIGN · STU FAD · HÁSKÓLINN Á BIFRÖST BIFRÖST UNIVERSITY · SAPIENZA Università di Roma · UMCS · TECHNISCHE UNIVERSITÄT DRESDEN · POLITÉCNICO GUARDA

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January 2025

CT.uni IO2:
Codifying Innovation in Learning and Teaching

How to codify innovation in the learning process

IO2: How to codify innovation in the learning process

<u>**Hypothesis:**</u> thinking is more creative and more innovative ideas
and outputs are created when HEIs and external stakeholders collaborate

Exploring mechanisms for building external partnerships;
- outline of the <u>needs of external organisations</u> in working with universities on innovation challenges and <u>needs of universities</u> in running innovation courses;
- <u>method for codifying the challenges</u> of external organisations.

Input data:

- **Quantitative feedback from focus groups (questionnaires, 2023)**
- Qualitative feedback from expert groups (LTT, 2024)

2023

We prepared 4 questionnaires and conducted data collection within the consortium exploring the challenges, benefits and barriers to university and third party collaboration.

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4 questionnaires = 4 focus groups

- **HEIs Students**   (prepared and led by Sapienza + UMCS)
- **HEIs Lecturers**   (prepared and led by IPG + TUD)
- **HEIs Managers**   (prepared and led by UvA + Bifrost)
- **HEIs Partners**   (prepared and led by STU + EUBA)

Questionnaire results:

3 key insights identified per questionnaire

<u>What do students perceive?</u>

- useful tools: generating ideas and solving a specific problem;
- Effectiveness: projects and activities outside regular subjects (extra-curricular);
- benefits: internships, career opportunities, innovative activities.

What do lecturers perceive?

- insufficient knowledge of methodologies for developing and promoting creativity (30%);
- Effective activities: teamwork, evaluation of new ideas, development of empathy and resilience within groups;
- important partners: government institutions, local authorities and NGOs.

What are the perceptions of university managers/leadership?

- Lack of flexibility, difficult synchronization of collaborations within the academic calendar;
- partners will provide a challenge, but no longer first-hand data and expert staff;
- Benefits of cooperation: relevance and importance of the courses, positive impact of the university for society.

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What do the partners perceive?

- (their) lack of time to devote to project collaborations (60%);
- Average quality of transdisciplinarity and usability of student outputs (50%);
- problem with time management among students (50%).

Input data:

- Quantitative feedback from focus groups (questionnaires, 2023)
- **Qualitative feedback from expert groups (LTT, 2024)**

Criteria
Ideal condition
Why?

Students

1. C: clear communication strategy of the Institute / Department / Faculty

2. IC: Students are motivated and involved if they are informed about the various opportunities to participate in extra-curricular/research activities

3. W: transparency, equal access to students, information about benefits, structure and type of outcomes

<u>Lecturers</u>

1. C: teaching support programme

1. IC: a regular mentoring programme for pedagogues to implement innovations into education

1. W: improve the quality of teaching

Managers (leadership)

1. C: ready database of cooperation partners

1. IC: organising OPEN DAY with the aim of match-making - looking for common goals and expectations of cooperation

1. W: University leadership needs to have a structure of specific themes that are connected to the grand challenges of the times. Managers need to communicate the impact of these collaborations: we are a relevant part of society.

partners

1. C: implementation of project management software

2. IC: the project has SMART goals, the team is aware of the objectives as well as important milestones and deadlines;

3. W: allocation of resources, realistic timelines, monitoring of progress to complete the tasks of all stakeholders

**IO2: How to codify innovation in the learning process
Publication**

<u>Codifying Innovation in Learning and Teaching</u>
spring 2025

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particularly in enhancing practical experiences and career opportunities. However, they also call for a balanced synergy between academic pursuits and stakeholder collaborations, ensuring the enrichment of their educational goals without compromising the essence of academic learning. The insights from the survey reveal a generation of students who are not only equipped to transition into the professional world but also intent on moulding it to foster an environment where creativity and innovation are paramount in the face of a rapidly changing global landscape.

AUTHORS

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The initial identification included five (5) questions, of which four (4) were mandatory and one (1) was optional. Two of the initial questions were open-ended. The second part, where the cooperation was identified, consisted of eight questions—four (4) mandatory and four (4)optional. All four optional questions were open-ended. Three questions were array scale questions, and one was a single-answer radio question.

The third part of the questionnaire examined the partners' motivation to cooperate. Four questions were used in this part — two were array scale and mandatory, and two were open-ended and optional.

The questionnaire's central and most extensive part was evaluating and determining the quality of cooperation between partners and universities. It consisted of 10 questions. The most crucial question was an open-ended mandatory question, where we asked partners: "How would you define good cooperation?" There were another two open-ended mandatory questions in this section, and three (3) open-ended questions were optional. The remaining four (4) questions were array-scaled. The closing question in the survey was open-ended and optional.

Section 3: Evaluation of Selected Close-ended Questions

1. What are the expectations of cooperation with universities?

This question aimed to recognize the importance of several predicted benefits shown in the questionnaire. Our results show that cooperation with universities is expected to affect external partners positively. Knowledge transfer is given the highest importance (43 % of respondents declare it the most important), followed by project outputs, student point of view, and talent hiring. 75 % of respondents consider public relations and corporate social responsibility essential or very important.

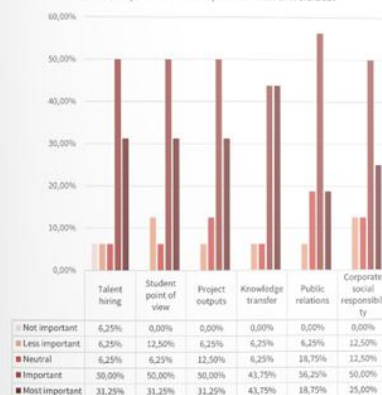What are the expectations of cooperation with universities?

	Talent hiring	Student point of view	Project outputs	Knowledge transfer	Public relations	Corporate social responsibility
Not important	6,25%	0,00%	0,00%	0,00%	0,00%	0,00%
Less important	6,25%	12,50%	6,25%	6,25%	6,25%	12,50%
Neutral	6,25%	6,25%	12,50%	6,25%	18,75%	12,50%
Important	50,00%	50,00%	50,00%	43,75%	56,25%	50,00%
Most important	31,25%	31,25%	31,25%	43,75%	18,75%	25,00%

Fig 1: HEIs Partners Questionnaire: What are the expectations of cooperation with universities? Source: authors

2. What is your company's perception of creativity / creative thinking?

In this question, we examined the perceptions of creativity or creative thinking by external partners of universities. This will help us understand what they expect and how they evaluate the level of creativity of the given soft skills related to creativity. Most creative skills were considered equally the ability to come up with new ideas (31,5 % of answers) and showing curiosity and motivation followed by showing multi-perspective. The ability

to enter cooperation with external stakeholders. The experience may be better or worse, but it is always precious.

What works? What does not work? Is your institution ready to cooperate with external stakeholders?

The set of recommendations and criteria are here to help verify and check the readiness of higher educational institutions prior to cooperation with external stakeholders if unsure.

FINAL WORD

The core aim of this project is to synergize academic theories with the practical realm, highlighting the potential positive influence of external collaborations on the creative and intellectual development recognized. We aim to recognize and identify the key ingredients for successful collaboration with external stakeholders. Our efforts can contribute to codifying innovation in education and teaching, leading to an increased understanding of how knowledge is created and can be tackled through innovation-focused methods within learning and teaching. This will also help to determine how challenges from different stakeholders can be identified, codified and used by academics to support student experience.

By gathering the inputs from HEIs partners, managers, teachers and students, sharing their experiences, interpreting the questionnaires' results and bringing a set of recommendations – and criteria – we would like to offer the findings and insights summarized in this publication to test the transferability potential summarized in other higher educational institutions. We want to nudge and encourage them not to hesitate

	CRITERIA	IDEAL CONDITION	WHY
1	Partners interested in participation in international competitions	Partners are engaged in society's life. They want to build authentic and truthful PR in their corporate social responsibilities. They are interested in showcasing their work. Cooperation with HEIs totally supports their values.	Skill Development / Networking / Practical Experience / Motivation and Engagement
2	An implementation of a project management software	The project has SMART (specific, measured, approved, realistic, time-framed) goals, and the team is aware of them and the critical project deadlines and milestones.	It assists in allocating resources efficiently, setting realistic timelines, and tracking progress to ensure timely completion of tasks by students, teachers, and partners.
3	Get a qualified, determined, and tested new employee/coworker.	Students are offered a joint bachelor/diploma thesis with an external stakeholder.	Partners can choose (ideally) from various students and pick those they need and prefer based on previous, objective, hands-on experience.
1	A satisfying number of excellent external organizations to cooperate with	An organization of open days at HEI: looking for enterprises based on "dating" and match-making – naming mutual goals and expectations of such cooperation	Managers need a virtual structure for specific topics connected to big challenges. They also need to communicate the impact – to have authentic PR and a message: We want to be (and are) part of society!
2	An easy and smooth synchronization of teaching/learning schedule: time (management) runs differently at HEIs and external stakeholders	Matching the didactics with the needs of business: Engaging students in cooperation should also benefit teachers. Students get ECTS, and cooperation with external stakeholders should be compulsory (at some point, at a certain course).	The cooperation with external stakeholders enables real experience, adds relevance to the internship and makes it part of the studies.
3	A motivation for teachers: They have no direct benefit when working with external stakeholders.	HEIs Managers need teachers and researchers who want to impact society. These people are open-minded, actively seek opportunities, and propose themselves for collaboration.	Teachers and researchers can have more opportunities to work with enterprises and earn more money for their research.

	CRITERIA	IDEAL CONDITION	WHY
1	A regulation of stakeholders engagement	Clear procedures and capacity for engagement. Everybody knows what to do and when.	Restate /reword a balanced partnership for the collaboration
2	A support teaching program	Regular mentoring program for teaching innovation	Improve the quality of teaching
3	Collaborative activities	Thematic meeting focus on diverse activities	Teacher team working recognition
1	A communication strategy by Department or Faculty	All students are motivated and engaged, and they are informed about all possible ways of their involvement in extracurricular and/or research activities.	To be transparent, to give equal access to all students, to attract students, to show them the benefits of extracurricular activities, and to structure the measurement of the outcome.
2	A creation of guidelines for co-operation with external partners	It is smooth and transparent co-operation, where students, as well as partners and the university, are satisfied without threads to the reputation of the university according to ESG (Environmental, Social and Governance aspects/values of a company).	The aim is to avoid risks of damaging cooperation, with the aim of finding win-win solutions, facilitating communication, and helping the decision-making process.
3	A toolbox for teachers	Everybody uses this toolbox to make their teaching process attractive and practical, and students are happy and create excellent projects.	It might help teachers save time by eliminating the need to search the internet or books for information.

Table 6: A full set of criteria for a successful cooperation between HEIs and external stakeholders includes the criteria - ideal condition - why for all respective and examined target groups, March 2024.

	CRITERIA	IDEAL CONDITION	WHY
1	Partners interested in participation in international competitions	Partners are engaged in society's life. They want to build authentic and truthful PR in their corporate social responsibilities. They are interested in showcasing their work. Cooperation with HEIs totally supports their values.	Skill Development Networking Practical Experience Motivation and Engagement
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Thank you
For your attention
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