

PROJECT PARTNERS



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GENERAL INFORMATION

Title of the case	Creative Design Semester & UniStartApp			
Sales pitch	<p>Creative Design Semester & UniStartApp gives the opportunity for students to perform open project tasks in groups, allowing them to acquire the features demanded by employers of today. Project topics usually come from external entities, including business and local government partners.</p> <p>The creation of the business model canvas is also an element of the project implementation. During the project implementation students use various ICT tools.</p>			
Organisations	<ul style="list-style-type: none">• Warsaw Design Factory• Warsaw University of Technology• Municipality of Warsaw• Companies from the IT industry			
Country	Poland			
Authors	<ul style="list-style-type: none">• Catarina Reis• Robert Olszewski			
Nature of interaction	Academic, students, business, city challenge			
Level of mechanism	<ul style="list-style-type: none"><input type="checkbox"/> Government policy (e.g. law, funding framework)<input type="checkbox"/> Organisational strategy (e.g. university/business/agency)<input type="checkbox"/> Structural element (e.g. centre, lab, office)<input checked="" type="checkbox"/> Operational level (e.g. activity or programme)			
Length of programme	<table border="1"><tr><td>Semester long</td><td>Formality</td><td>Formal</td></tr></table>	Semester long	Formality	Formal
Semester long	Formality	Formal		

Curricula-bound,
co or extra-
curricular?

Co-curricula	Level of initiative	Interdisciplinary, cross-disciplinary
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Summary

Warsaw Design Factory is a unique place in the Warsaw University of Technology. Its goal is to build an innovative university, establishing interdisciplinary and creative teams of young scientists, with full involvement of academic staff. It aims at educating the engineers of the future and global innovators that participate within international teams. It also develops the teaching competences of the academic staff. The Creative Design Semester & UniStartApp is an additional semester-long project class in which students use PBL (Problem Based Learning) and DT (Design Thinking) methodologies to solve challenges suggested by external entities.



CASE STUDY PROFILE

BACKGROUND

Creative Design Semester & UniStartApp is an additional semester project class at the central level of the Warsaw University of Technology. It is targeted to 1st and 2nd degree students from various faculties of the Warsaw University of Technology. The goal is to perform open project tasks in groups. Project topics usually come from external entities, including business and local government partners.

One of the most important projects implemented jointly with the authorities of several cities in Poland was UniStartApp. This project has created an education ecosystem in which students with technological, economic and social-science backgrounds could work together with their colleagues within interdisciplinary and inter-institutional teams. The ecosystem was built into curricula at each and every participating university, but at the same time, it remained congruent and consistent with the startup creation methodology. UniStartApp began in early 2016 with the recruitment of students from participating universities – in the last years of undergraduate programs at technical universities and the first year of postgraduate programs at others. Participation in the project was interwoven into the education process of students at home universities, giving them ECTS points for their academic scoring. The project was conducted through several defined stages, and a milestone was assigned to each one: from the application (product) idea, through the competitor analysis, identification of user requirements, creation of

the final product vision, as well as supporting a business model, requirement specification, a summary of business-system analysis, and a final programming workshop.

CONTEXT

On June 25, 2018, Warsaw University of Technology's Center for Innovation and Technology Transfer Management (CZliTT) launched the Warsaw Design Factory. CZliTT's main purpose was to build a forward-looking and innovative institution of higher education.

In fact, the Warsaw Design Factory was planned to be a platform for courses, workshops, training sessions and programs. Those projects should engage both interdisciplinary and creative junior research teams, and a fully dedicated academic staff.

As well as, all projects promoting a closer collaboration between science and business while enhancing a teaching excellence among the staff of the Warsaw University of Technology. Therefore, it is a place for students to develop their professional skills.

In this context, the Warsaw Design Factory has designed a Creative Design Semester.

OBJECTIVES AND MOTIVATIONS

Main objectives of the Creative Design Semester:

- Interdisciplinary cooperation of students from many different faculties, with particular emphasis on IT and business
- Widening horizons, T-shape, entrepreneurship education

STAKEHOLDERS

The stakeholders include:

- Students and professors of Warsaw University of Technology
- Industry representatives
- Local government representatives

PROCESS

INPUT

Main inputs:

- Knowledge, skills and experiences of university professors, researchers and industry representatives
- Mentorship (from university and industry)
- Students' participation
- Access to infrastructure and relevant data

ACTIVITIES

This project includes several activities, namely:

- Implementation of projects jointly with clients, e.g. city departments (research projects, analysis and simulation, prototyping, 3D printing)
- Application of Project Based Learning and Design Thinking methodologies
- Creation of business models
- Workshops, trainings, conferences and seminars in the area of entrepreneurship, new technologies and soft skills



OUTCOMES AND IMPACT

OUTPUTS

The outputs come from the students' projects/works, e.g.:

- New products/ services/ apps
- New solutions/ strategies

IMPACTS

These classes allow students to develop the skills demanded by employers of today - teamwork skills, creativity, courage, honesty, non-schematic thinking - while deepening substantive knowledge and developing analytical skills.

SUPPORTING ENVIRONMENT & SYSTEM

SUPPORTING MECHANISMS

Support from the city departments and other organizations

There are 3 strategies to monitor/ evaluate the results of the project:

- Ongoing control of tutors
- Evaluation of students
- Half and final presentations in a wide range of venues

BARRIERS AND DRIVERS

Drivers:

- Tendency for Universities to offer more practical classes, combining the theory of traditional economic literature with the specific needs of everyday business management
- Entrepreneurship education at universities is becoming more and more empirical, practical and action-oriented
- Changes in methods of education: there has been an application of such methods as teamwork, learning through projects, learning through direct experience, methods of self-development and self-evaluation, case studies, etc.
- Tendency for inviting managers (who are also university graduates) to run courses, partially or as a whole

Barriers:

- Finding reliable partners who are really interested in co-operating with student teams
- Projects' partners are located in distant cities



LESSONS LEARNED

CHALLENGES

The main challenges are:

- Interdisciplinary communication within teams
- Virtualness of teams - it took some time for the participants to get used to the "drill" of formal virtual team meetings and status meetings with team mentors.
- Time management
- IPRs of the value created within such inter-organizational students' teams – approaches to this issue may differ between the participating organizations

KEY SUCCESS FACTORS

The key success factors that can be referred to are:

- Interdisciplinary teams
- Diversity of partners involved in the projects

As for sustainability, there are 3 important measures/activities Warsaw University of Technology plan to undertake, namely:

- Broadening the co-operation
- Searching for new partners (already being implemented)
- Setting up student start-ups and university spin-offs



FURTHER INFORMATION

AWARDS AND RECOGNITION

TRANSFERABILITY

This teaching and learning method could be replicated anywhere.

PUBLICATIONS

<https://content.sciendo.com/view/journals/fman/10/1/article-p23.xml>

LINKS

https://wdf.pw.edu.pl/wdf_en/For-Students/Courses

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