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UNIVERCITY ACTION LAB

UNIVERCITY ACTION LAB

CHALLENGE PILOT IMPLEMENTATION REPORT

Porto Business School

March. 2021

PROJECT PARTNERS

CONTENTS

INTRODUCTION

The UCITYLAB Challenge Pilot Implementation Report was developed as an intellectual output (IO4) within the framework of the UniverCity Action Lab project, co-funded by the Erasmus+ programme.

This report collects the experiences of the four partner HEIs in the piloting of a course based on the toolkit and aims at highlighting the details of the process, mechanisms, motivations, outputs and impacts developed during the implementation phase.

The course implementation was agile and flexible, so each partner was able to choose the length and number of programs implemented based on their curricula and needs. In fact, the Teaching Toolkit has provided the basic structure, learning outcomes and content for the implementation of the course, while the pedagogical methods, and other peculiarities remained open for HEIs to decide upon.

The aim of the course in the context of the UCITYLAB project was (1) to be piloted in 4 partner HEIs with (2) 12+ urban development projects developed by the students (3) involving 60+ students, (4) 12+ academics, and (5) 12+ representatives of the UCITYLAB Network. These indicators were not only achieved but exceeded. Please refer to the figures below:

	PBS	IRI UL	UAB	IMT BS	Total
Projects	23	10	20	32	85
Students	96	39	250	150	535
Academics	3	8	18	8	37
Network	6	5	30	5	46

Despite all the differences among partners, as will be described in the subsequent chapters, the methodology used was the same: project-based learning, enabling students to solve real-life challenges in their communities collected and proposed by the network stakeholders in prior meetings and consultations.

The course comprised a theoretical part and practical challenge, bringing real impact on the community development and curricula improvement. For strengthening the co-operation between the students and the city representatives, the students were mentored during all stages of the process.

Besides gather and sharing the experiences of the four HEIs, this report contains an innovative tool developed withing the project – a challenge-programs comparison tool. This tool aims at delivering a visual representation of the different programs in order to facilitate the analysis.

Moreover, this report works as a student project handbook as it encompasses reference to the developed and implemented initiatives.

Hence, the UCITYLAB Challenge Pilot Implementation Report informs partners, relevant stakeholders and the wider public on the results of the course as well as set the ground for the replication of the course in other Higher Educations Institutions.

CHALLENGE PROGRAM PILOTS

Porto Business School

GENERAL

Short summary

Porto Business School has developed two challenge-based projects/ programs within the UCITYLAB project. Both of them aim at strengthening the link between Porto Business School and the city through the identification and tackling of urban challenges.
The first was embedded into PBS existing programs – Executive Masters of Business Administration (EMBA) and Digital Masters of Business Administration (DMBA), particularly within the Business Innovation course.
Multidisciplinary student teams have developed innovative business models to bridge the goals of the municipality with the sustainable development goals, using both a human-centric and a triple-bottom-line approach.
The second program was developed in a partnership with ShARE-UP, the University of Porto's branch of the international organization ShARE. The goal was to come up with a solution to reinforce youth participation in the implementation of the Youth Strategy of Porto 4.0. This strategy aims at promoting new models to enforce youth rights and support youth policies based on strategic, participatory and transversal knowledge and evidence.
The program was structured as a contest, in which the winning team, evaluated by faculty from Porto Business School, University of Porto and members of ShARE-UP, would implement its solution in partnership with the municipality.

Background

Porto Business School has organized a high-level workshop with the Mayor and the Councillors of the Municipality of Porto, to jointly map the priorities of the city and math them with the Sustainable Development Goals (SDG).
The priorities were outlined based on the citizen perspective, rather than on the government side. Then, these priorities were linked to the SDG, identifying the most relevant ones for the city. Lastly, challenges were identified, both explicit and connected.
Previously to the Business Innovation course, more specific challenges were set in order for the students to develop concrete solutions – business models.

SDG	Challenge	Connected Challenge	Target	Indirect SDG	Notes
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	**Mobility** To create instruments to regulate micro-logistics in areas with high concentration of trade and tourism, defining new rules and access schedules for the zones with traffic restrictions.	**Innovation** To intensify the commitment on digital platforms supported by information and knowledge management open policies, bringing together internal and external sources to the municipality.	Target 9-1 Develop sustainable resilient and inclusive infrastructures	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	
10 REDUCED INEQUALITIES	**Urbanism and housing** To ensure the increasing in the supply of the available housing, balancing supply and demand, thereby removing pressure on the cost of housing.	**Culture** To ensure cultural decentralization: Expanding Culture and new projects announced. **Sports** To reinforce informal sporting practice, taking advantage of the city's parks and beaches that enable free activities, as well as other areas withing the public space.	Target 10-4 Promote equality	1 NO POVERTY	3 Good health and well-being **Social action** To strengthen support services for the elderly **Education** To strengthen support services for the families
7 AFFORDABLE AND CLEAN ENERGY	**Environment** Energetic Communities.	**Environment** To equip public buildings, namely schools, with photovoltaic panels in accordance with the recovery processes they have been submitted to. **Environment** To continue the replacement of public lighting with a more efficient system (led), enabling substantial savings.	Target 13-3 Build knowledge and capacity to meet climate change	13 CLIMATE ACTION	
8 DECENT WORK AND ECONOMIC GROWTH	**Economics and social decentralisation** To promote the capture of national and international investment, fostering the connection with the knowledge centres, and enhancing the establishment of an economic ecosystem that streamlines job creation crosswise.	**Economics and social decentralisation** To establish the Talent Management department within the municipal investment attraction structure (InvestPorto), emphasizing the talent created in the region and attracting national and international talent.	Target 8-1 Sustainable economic growth	4 QUALITY EDUCATION	

Regarding the contest, the Challenge Program 2, participants were presented to the same single challenge identified by the Municipality of Porto.
Prior to the program itself, students have participated in workshops on "how to solve a case study", "data collection & analysis", and "design thinking/ problem solving". They were also given the opportunity to attend to the talk "meet the change-makers".
This program was development withing the "Do Well Do Good", an initiative of ShARE-UP based on the gathering of the business world ("do well") with the of NGO, CSR and social enterprises perspective ("do good").

Challenge project 1 – Business Innovation Course

Nature of program

Types of activities: Lectures, self-learning, field visits
Formal
Curricula-bound
Level of initiative: Executive

Length

Short (1 month)

Motivations and Objectives

At Porto Business School, we had the ambitious of building a connection with the city and its institutions in order to keep developing joint actions after the UCITYLAB lifetime.
This was successfully achieved as we have integrated the Observatory "Services, Urban Competitiveness and Territorial Cohesion", meaning that we are part of the urban ecosystem and we will be involved in the decision-making process and have a role on the discussions. Furthermore, other projects have been designed based on our experience with the project, so we are developing a good track record in urban development, smart cities and quadruple helix relations.
Additionally, the thematic of sustainability and particularly the Sustainable Development Goals, have becoming a priority for Porto Business School. Several initiatives have been designed accordingly, so the ability of converging urban challenges with the SGDs motivated us and the students.
For the students' point of view, it was also crucial the engagement of the Mayor and his elective team of counsellors on the workshop as it guaranteed that the solutions they would propose were matching the actual needs of the city and were in line with the priorities defined by the government – real-life approach.
Lastly, for the business' perspective, the motivation was to be part of the construction of models based on new desirability, new feasibility and new viability, based on the city priorities and in line with the United Nations goals.

Stakeholders

The program followed a triple helix approach. The idea was to add also the citizen side in order to fulfil with the quadruple helix, but the pandemic situation has crippled this approach.
Therefore, we count on two lecturers (academia side): Rui Coutinho, from Porto Business School and Clark Kellogg, from UC Berkeley Haas School of Business.
The government side, represented by the Mayor of Porto and his team had, as referred before, the role of challenge definition and to assure the desirability of the solutions.
The business involved has the role of mentoring the students and guiding them in the development of creative solutions matching the feasibility, desirability and viability. Additionally, in the future, the solutions chosen will be implemented by companies.

Process

Program inputs

Students from the Executive MBA[1]

1	Andreia …	Accounting and Administration
2	Catarina …	Psychology
3	Cristina …	Civil Engineering
4	Daniel …	Computer Networks and Systems Engineering
5	Diogo …	Architecture
6	Egler …	Computer Science
7	Hélder …	Mechanical Engineering
8	Hugo …	Civil Engineering
9	Jaime …	Civil Engineering
10	José …	Industrial Engineering and Management
11	Luís …	Master in Electrical and Computers Engineering
12	Luís …	Management
13	Luísa …	Management
14	Mariana …	Economics
15	Patrícia …	Psychology
16	Raul …	Chemical Engineering
17	Ricardo …	Economics
18	Ricardo …	Management, Entrepreneurship and Marketing
19	Rosa …	Polymer Engineering
20	Tiago …	Marketing management

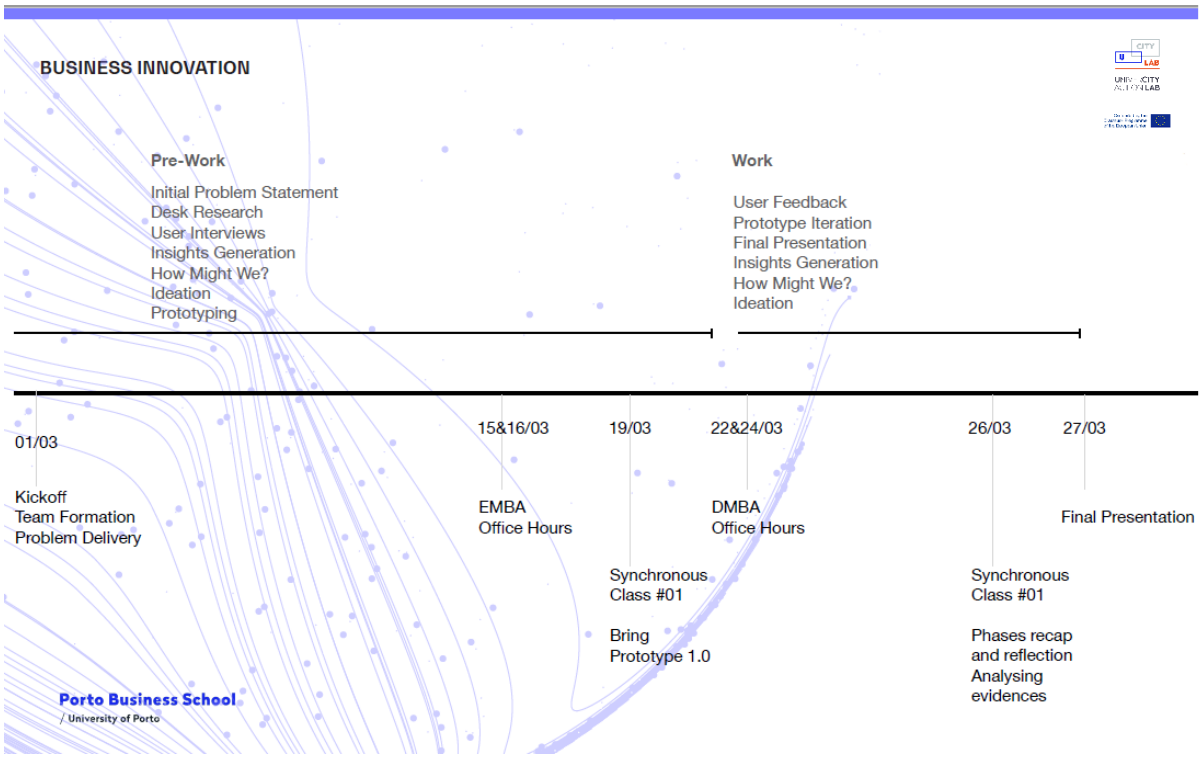
Students from the Digital MBA[1]

21	Arthur …	Environmental engineering
22	Augusto …	Forest engineering
23	Bruno …	Economics
24	Carlos …	Economics
25	Célia …	Economics
26	Fábio …	Computer Science and engineering
27	João …	Management
28	João …	Civil Engineering
29	Maia …	Banking and Finance
30	Maria …	Organizational, Social and Work Psychology
31	Mariana …	Medicine
32	Milton …	Computing
33	Nuno …	Audit
34	Nuno …	Electronic and Telecommunications Engineering
35	Nuno …	Aeronautical Sciences

36	Pedro …	Mechanical Engineering
37	Raimundo …	IGCSE
38	Tiago …	Management
39	Vitor …	Management

[1]To comply with privacy rules, the full names of participants have been hidden

The UniverCity Action Lab Challenge Teaching Toolkit was developed to provide guidance for university lecturers and study program managers to implement a hands-on, real-life, and problem-based course module in cooperation with city stakeholders: public authorities, relevant societal representatives, or industry partners. The toolkit, as well as the whole project was designed based on a university-city cooperation, which was achieved in PBS' implementation of the course. The teaching and learning process of the toolkit was applied. When it comes to the position of the program within HEI structure and the type of instruction/ teaching, the suggestions on the toolkit were also followed. The structure of the modules was adapted to better fit our institution, but all topics were addressed. PBS' course followed a human-centric approach, which came from the toolkit, but has also engaged in other strategies such as a design thinking and business model design.



Program activities

Based on the results of the workshop with the municipality of Porto, 8 city challenges were defined and transformed into problems for students to solve.

#	City Challenge	Team problem
1	Create instruments for regulating micro-logistics in areas with the highest concentration of trade and tourism, defining new rules and access times for the ZAAC - Conditioned Car Access Zones.	The pandemic showed a change in the mobility pattern in the city, specially with the increase of last mile delivery transportation of goods. It increases the pressure on ZAAC zones and threatens both citizens mobility and safety.
2	Ensuring an increase in the supply of available housing, balancing supply with demand, thereby removing pressure on the cost of housing.	The unbalance between permanent housing solutions and temporary accommodation for tourists in the historic downtown generate new urban challenges.
3	Equip public buildings, namely schools, in the context of the renovation of which they have been subject, with photovoltaic panels.	Low levels of awareness and appropriate behaviour still generate energy inefficiencies in public buildings.
4	Promote the attraction of national and international investment, fostering the connection with the city's knowledge centers and enhancing the creation of an economic ecosystem that streamlines job creation transversally.	The increasing competitiveness nature of foreign direct investment flows demand new, creative and more efficient strategies to enhance the attractiveness of the city for companies to install qualified operations.
5	Intensify the investment on digital platforms supported by open information and knowledge management policies, bringing together internal and external sources to the municipality	Data integration between multiple "City operators" (such as the Municipality, STCP, Metro, Águas do Porto, telco companies, civil protection, public services, etc) is still lower than desirable and the prevents the emergence of new data-driven innovations, products and services from start-ups
6	Reinforce informal sports practice, taking advantage of the	Low and/or unbalanced use of informal sports facilities and equipments in

	city's parks and beaches for free and integrating and differentiating activities, using equally areas within the public space.	the city generate both management inefficiencies (from the city's perspective) and social exclusion
7	Continue to replace public lighting with a more efficient system (led), with substantial savings.	Public lighting systems have been evolving from consumption point of view (replacement of lamps, etc). However, even if they consume less energy, still inefficiencies exist from an integrated management perspective (e.g. even in no car or pedestrians pass by during an hour, the system never changes)
8	Promote the attraction of national and international investment, fostering the connection with the city's knowledge centers and enhancing the creation of an economic ecosystem that streamlines job creation transversally.	There's still a skills gap between the talent needs and requirements of companies and the available talent in the city (namely on STEM). On the other hand, there's a skills mismatch also, as existing non-STEM talent is lacking job opportunities.

In order to address these problems, students have engaged in an immersive journey from initial problem statement until critical reflection about the city and possible future application in the context of the student's professional life. In the first part of the program, students wrote a report covering 8 aspects: 1. Team Presentation, 2. Initial Problem Statement, 3. Activity description from Desk Research, 4. Activity description from User Interviews, 5. Report from the Insights Generation, 6. How Might We? Question formulated, 7. Mapping the Ideation Process and 8. Mapping the Prototyping Process. This was the starting point of the work and was followed by the actual work which culminated in a final presentation covering some common aspects with the pre-work, but also additional ones:

- Slide 1: Team Presentation
- Slides 2+3: Describing the process: from problem statement to the How Might We? Question
- Slide 4+5: Describing the process: from Ideation to Final Solution
- Slide 6: Presentation of the Final Solution / Prototype
- Slide 7+8: Learnings from the user feedback
- Slide 9: Economic rational of the final solution
- Slide 10: Possible next steps

Several platforms were used, namely zoom, virtual campus, knowdeon platform, sharepoint on OneDrive, and miro.

Outputs & Impact

Outputs

#	Team problem	Solution Produced
1	The pandemic showed a change in the mobility pattern in the city, specially with the increase of last mile delivery transportation of goods. It increases the pressure on ZAAC zones and threatens both citizens mobility and safety.	Type of solution: Web App Booking system to ZAAC zones that uses real time information, ensuring the needs are fulfilled but guaranteeing the control in the number of vehicles and the security.
2	The unbalance between permanent housing solutions and temporary accommodation for tourists in the historic downtown generate new urban challenges.	Type of solution: Public policy Housing Usage Cycle in which only new or renewed houses can be rented and only for a short period of time (5 years in one bedroom, 7 years in 2 or more bedrooms)
3	Low levels of awareness and appropriate behaviour still generate energy inefficiencies in public buildings.	Type of solution: Web app Targeted to students and professors, this solution involves a OKR (Objectives and Key Results) platform in which individual and group goals would be registered. The platform included a gamification approach fostering the interest of students.
4	The increasing competitiveness nature of foreign direct investment flows demand new, creative and more efficient strategies to enhance the attractiveness of the city for companies to install qualified operations.	Type of solution: framework O'Porto Business Concierge supports investment in the region and promotes communication between agencies in a smooth and bureaucracy-free way. The main pillars are infrastructure, talent and digital transformation, and the main areas are Fintech Campus and Life & Science Campus.
5	Data integration between multiple "City operators" (such as the Municipality, STCP, Metro, Águas do Porto, telco companies, civil	Type of solution: Tool The data analytics reactor is a tool that gathers data from different sources namely municipal companies (energy, water, metro, etc.) It has two

	protection, public services, etc) is still lower than desirable and the prevents the emergence of new data-driven innovations, products and services from start-ups	features: the first is to guarantee the integrity and usability of raw data; the second is to provide business insights to companies (transformed data)
6	Low and/or unbalanced use of informal sports facilities and equipments in the city generate both management inefficiencies (from the city's perspective) and social exclusion	Type of solution: Business model Creation of outside areas, namely Local Picasso, Party is here, Our backyard, Take a bite, Garagem da Vizinha and Virtual abs. These spaces would involve different kind of activities for different target groups.
7	Public lighting systems have been evolving from consumption point of view (replacement of lamps, etc). However, even if they consume less energy, still inefficiencies exist from an integrated management perspective (e.g. even in no car or pedestrians pass by during an hour, the system never changes)	Type of solution: Product Light My Tile, a tile with led light inside. A solution that is obstacle-free in the public space, that adapts itself to the conditions and also integrates seamlessly in the building environment.
8	There's still a skills gap between the talent needs and requirements of companies and the available talent in the city (namely on STEM). On the other hand, there's a skills mismatch also, as existing non-STEM talent is lacking job opportunities.	Type of solution: Service Reskilling and Upskilling Center as a result between the City Hall, the knowledge centres and the companies. The companies have the role of presentig the needs, City Hall is sponsor and promoter, and knowledge centers would train people.

Feedback from the Executive MBA Students

Course | Business Innovation

	Minimum	Maximum	Mean	Std Deviation	Variance	Count
Clear goals	4.00	5.00	4.73	0.45	0.20	11
Goals achieved	4.00	5.00	4.64	0.48	0.23	11
Relevant / useful	3.00	5.00	4.73	0.62	0.38	11
Innovative thinking	4.00	5.00	4.64	0.48	0.23	11
Useful materials	2.00	5.00	4.36	0.88	0.78	11
Overall, effective course	4.00	5.00	4.73	0.45	0.20	11

Feedback from the Digital MBA Students

Course - Business Innovation (International Week) (Online)

	Minimum	Maximum	Mean	Std Deviation	Variance	Count
Clear goals	2.00	5.00	3.94	1.14	1.31	16
Goals achieved	3.00	5.00	4.31	0.77	0.59	16
Innovative thinking	3.00	5.00	4.63	0.60	0.36	16
Overall, effective course	2.00	5.00	4.06	0.90	0.81	16
Relevant / useful	3.00	5.00	4.44	0.70	0.50	16
Useful materials	2.00	5.00	4.06	1.03	1.06	16

Impact

Students have experienced a new learning process focused on a problem-based realistic methodology as they have addressed problems suggested by the municipality. These challenges were identified as the city main priorities, so the students feel the belongness and the utility of their solutions. Besides the connection with the city itself, students have contacted with companies and citizens, in a quadruple helix approach.

Moreover, the connection to the Sustainable Development Goals was viewed as a positive aspect of the course as these have been gaining significance in today's world.

Groups were interdisciplinary, multifunctional, intercultural, contributing to the development of an open and positive mindset on students.

The methodologies, namely human-centric approach, design thinking, and business model design are innovative and useful for students' daily lives.

The economic rationale, through the concepts of economic viability, economic replicability, and economic scalability, was always present, which was valuable to the students as they could understand how their backgrounds could be applied to tackle urban challenges.

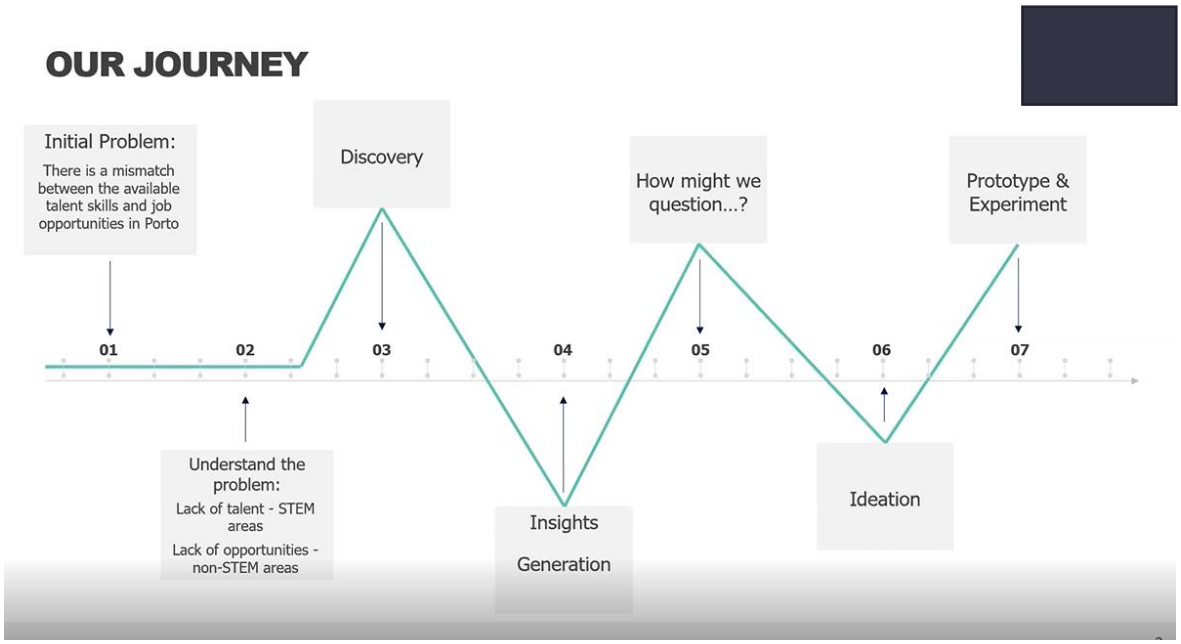
Visuals

UNIVERCITY ACTION LAB

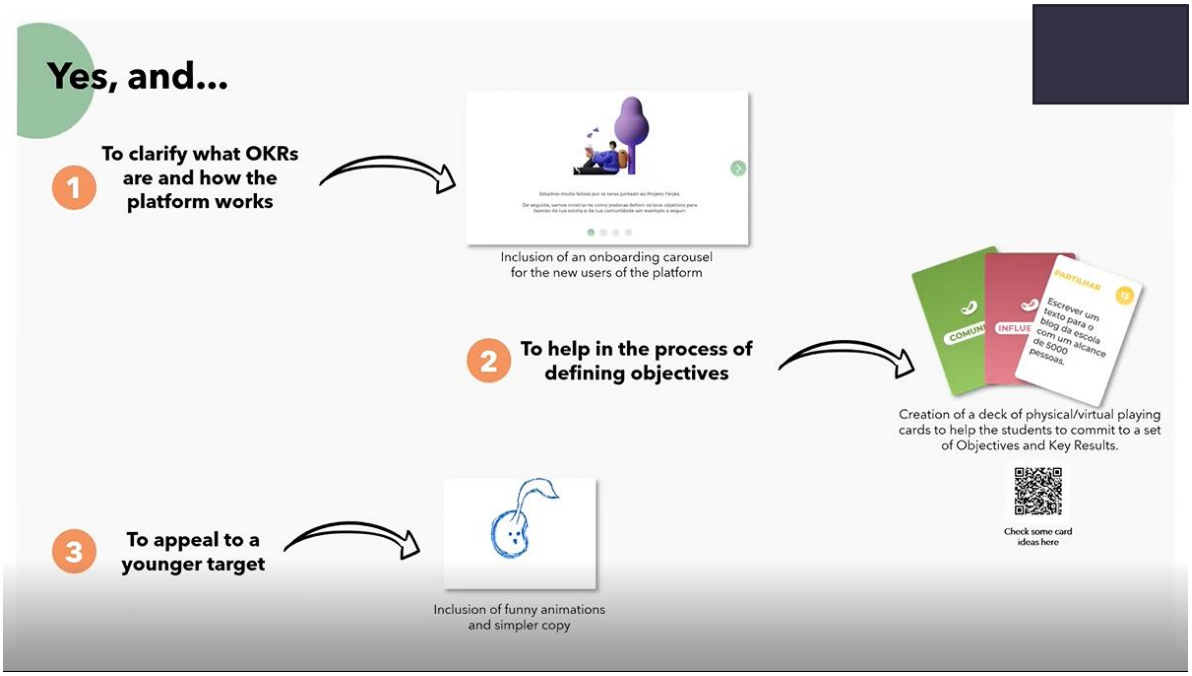
Team	Main SDG	Aux SDG	SDG Target	City Challenge	Team Problem
DMBA 1	9	12	Target 9-1 Develop sustainable resilient and inclusive infrastructures	Create instruments for regulating micro-logistics in areas with the highest concentration of trade and tourism, defining new rules and access times for the ZAAC - Conditioned Car Access Zones.	The pandemic showed a change in the mobility pattern in the city, specially with the increase of last mile delivery transportation of goods. It increases the pressure on ZAAC zones and threatens both citizens mobility and safety.
DMBA 2	10	1	Target 10-4 Promote equality	Ensuring an increase in the supply of available housing, balancing supply with demand, thereby removing pressure on the cost of housing.	The unbalance between permanent housing solutions and temporary accommodation for tourists in the historic downtown generate new urban challenges.
DMBA 3	7	13	Target 13-3 Build knowledge and capacity to meet climate change	Equip public buildings, namely schools, in the context of the renovation of which they have been subject, with photovoltaic panels	Low levels of awareness and appropriate behaviour still generate energy inefficiencies in public buildings.
DMBA 4	8	4	Target 8-1 Sustainable economic growth	Promote the attraction of national and international investment, fostering the connection with the city's knowledge centers and enhancing the creation of an economic ecosystem that streamlines job creation transversally	The increasing competitiveness nature of foreign direct investment flows demand new, creative and more efficient strategies to enhance the attractiveness of the city for companies to install qualified operations.
EMBA 1	9	12	Target 9-1 Develop sustainable resilient and inclusive infrastructures	Intensify the investment on digital platforms supported by open information and knowledge management policies, bringing together internal and external sources to the municipality	Data integration between multiple "City operators" (such as the Municipality, STCP, Metro, Águas do Porto, telco companies, civil protection, public services, etc) is still lower than desirable and the prevents the emergence of new data-driven innovations, products and services from start-ups
EMBA 2	10	1	Target 10-4 Promote equality	Reinforce informal sports practice, taking advantage of the city's parks and beaches for free and integrating and differentiating activities, using equally areas within the public	Low and/or unbalanced use of informal sports facilities and equipments in the city generate both management inefficiencies (from the city's perspective) and social exclusion
EMBA 3	7	13	Target 13-3 Build knowledge and capacity to meet climate change	Continue to replace public lighting with a more efficient system (led), with substantial savings.	Public lighting systems have been evolving from consumption point of view (replacement of lamps, etc). However, even if they consume less energy, still inefficiencies exist from an integrated management perspective (e.g. even in no car or pedestrians pass by during an hour, the system never changes)
EMBA 4	8	4	Target 8-1 Sustainable economic growth	Promote the attraction of national and international investment, fostering the connection with the city's knowledge centers and enhancing the creation of an economic ecosystem that streamlines job creation transversally	There's still a skills gap between the talent needs and requirements of companies and the available talent in the city (namely on STEM). On the other hand, there's a skills mismatch also, as existing non-STEM talent is lacking job opportunities.

Project

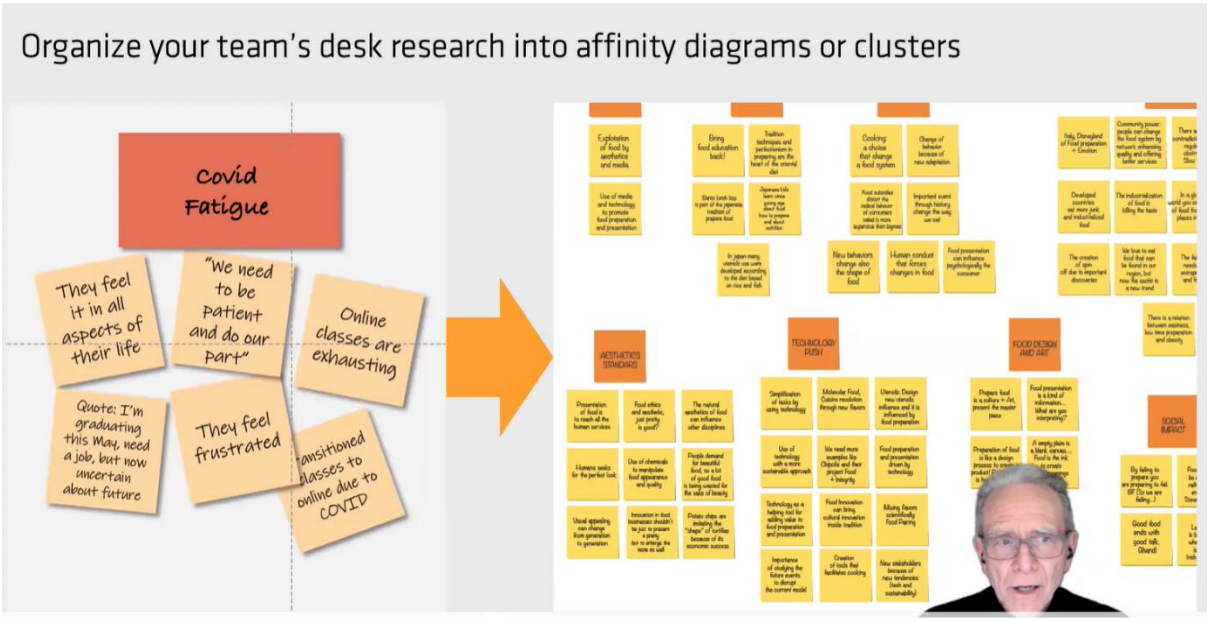
Urban Challenges identified by the city transformed into team problems



Example of a group presentation



Example of a group presentation



Example of the usage of the knowdeon platform

Challenge project 2 - Do Well Do Good Challenge

Nature of program

Types of activities: Hackathon, contest, workshops, self-learning, meetings, case study
Informal
Extra-curricula
Level of initiative: Bachelor and Manter

Length

Short (3 months)

Motivations and Objectives

The goal was to come up with a solution to reinforce youth participation in the implementation of the Youth Strategy of Porto 4.0. This strategy aims at promoting new models to enforce youth rights and support youth policies based on strategic, participatory and transversal knowledge and evidence.
The Youth Strategy of Porto 4.0. integrates the European movement #YouthUp which calls on politicians and political institutions to open their structures embracing the innovation and creativity young people and youth organizations can bring. By including young people in decision-making, they lead to better and more inclusive, and thus stronger and more sustainable, democratic systems.
Focusing on this movement, the Porto City Council quickly integrated #YouthUp into its activity, combining it with the Youth Strategy 4.0. Thus, in 2020, it was started the
#YouthUpPorto: the process of co-creating Youth Strategy 4.0 with young people in
between January 2020 and May 2021.
Several activities have been developed under the Youth Strategy of Porto 4.0, such as debates, focus groups, workshops, among others. Nevertheless, there seems to be a lack of commitment of young people in participating. The problem could be on the attraction of the target audience, on the lack of interest or on the activities themselves (calendar, content, structure, etc.).
Therefore, the main objective of the program is to understand the reason behind the lack of commitment of young people and to create and present a solution for that.

Stakeholders

This program is a partnership between ShARE-UP, Municipality of Porto, Porto Business School, Portuguese Institute of Sport and Youth, and Santander.
However, several organisations have participated to mentor and evaluate the students, namely McKinsey & Company, PwC, Bial, GEG Engineering, Bwizer, TEDx, University of Porto, Salesforce, Kaizen Institute Western Europe, CEiiA, LTPLabs, World Health Organization, Zalando SE, European University Institute, Sailside, NOS, Gerald Technologies, and Haier Europe.

Process

Program inputs

Number	Team name	Number of members	Profile	Background
1	AskUS First	4	Bachelors'	Engineering
2	Biothentic	4	Masters'	Engineering
3	C2C	4	Bachelors'	Engineering
4	Do Always Better	4	Bachelors'	Engineering
5	DRIF(t)	4	Bachelors'	Engineering
6	FEP First Connection	3	Bachelors'	Economics
7	Gajos	4	Bachelors'	Economics
8	Geração+	4	Bachelors'	Medicine
9	Inov4	4	Masters'	Engineering
10	Invicta's Reinventors	4	Bachelors'	Nutrition
11	NEB	4	Bachelors'	Engineering
12	Neptuno	3	Masters'	Engineering
13	Porto's Gambit	4	Masters'	Medice
14	SolveToWin	4	Bachelors'	Engineering
15	VO.U.	3	Masters'	Psychology

Despite the informality of this program, as an extra-curricular activity targeted to students in bachelor's and master's degrees, the toolkit was used to give support in the selection of students and in their evaluation. In terms of the Modules, number 4 was the most significant in this context, since "The Art of Seling a Promising Idea" was crucial for the selection of the winner.
The challenge counted on the financial support of Santander.

Program activities

Contrary to the Challenge Program 1, this program aimed at solving a single challenge, linked to the Sustainable Development Goal 16. "Promote just, peaceful and inclusive societies". Particularly, it has addressed the sub-goals 16.6." Develop effective, accountable and transparent institutions at all levels" and 16.7. "Ensure responsive, inclusive, participatory and representative decision-making at all levels". In fact, all teams have addressed this unique challenge to deliver a solution to reinforce youth participation in the Municipality and political issues.
The idea of the DO WELL DO GOOD CHALLENGE was to create a Working Committee constituted by the winning team, the Municipality and the Porto Business School in order to think with young people about young people, to include ideas outside the box, and go beyond normal intentions and assumptions.

Therefore, teams aimed to find proposals for improvement of existing spaces for participation or creation of new ones, to strengthen the links between young people and the implementation of the Youth Strategy of Porto 4.0.

This program encompassed several activities, namely:

- Workshops
- Talks
- Solving of the case study

Teams had 36 hours to solve the case study. They have had the opportunity to discuss with mentors and to take advantage of all the technical knowledge they had acquired during the various workshops.

- Delivering of the solution (first draft)
- Evaluation and selection of 5 finalist teams
- Improvement of the solution
- Delivering of the solution (final)
- Final presentations

The finalists have been evaluated by a panel of judges composed by 3 members. The teams were assessed, among other parameters, on the following aspects: Innovation, Social Impact, Viability, Proposal Quality and Pitch Capacity.

- Closing session

Revelation of winning team by the jury

- Implementation of the solution

The winning team will implement the solution with the support of Porto Municipality and Porto Business School for 2 months.

The platforms used were Zoom, Discord, GoogleDrive and Whatsapp.

Outputs & Impact

Outputs

Number, type, and scope of solutions produced.

Number	Team name	Solution
1	AskUS First	Solution integrated in 5 large groups: marketing, associations, political training, events' restructuring and innovation, and European ambition.
2	Biothentic	Participative Assembly called Cidadania 5.0 and a web-platform called PassaPorto
3	C2C	Strategy focused on 4 types of target, with different interests and goals. Therefore, different solutions would be implemented to target each group.
4	Do Always Better	It was decided to make a cross-sectional approach to the problem through the creation of a "board" in the

		CMJP. As a marketing strategy, the team purposed to implement the cooperation of ambassadors, who would be responsible for efficiently advertising all dynamized activities. Subsequently, it is also intended to implement a profound restructuring and stratification of the CMJP, granting, if possible, an interdependence in relation to the Porto City Council.
5	DRIF(t)	It was purpose to create an Instagram page, to perform onlin surveys to ascertain the interest of young people, and to create an incentive system through gamification.
6	FEP First Connection	The proposals are: increase youth representation with the implementation of the "Youth Councillors" program and, in line with the creation of "Youth Assemblies"; boost marketing strategies, more concretely in the creation of profiles on social networks (Instagram and Twitter) targeted directly to young people, as well as the opening of its own social network, the J2J platform.
7	Gajos	Solution that included 4 pillars: participation, training, management and communication.
8	Geração+	Proposal for a project to be implemented, "Growing with Porto", which aims to ensure greater involvement among young people in higher and secondary education. This project is divided into three major parts: training, partnerships and volunteering.
9	Inov4	The proposed solution is based on 3 pillars: communication, digital platform and Program of Ambassadors.
10	Invicta's Reinventors	The team suggested taking advantage of the Porto Card that is going to be launched and creating a version adapted to young people - the Porto YOUTH Card. This would be based on a points system, in which young people, through their participation in events provided by CM Porto, would be able to accumulate points and exchange them for prizes defined by the Municipality. An web app would also be created with access to the number of points (YOUTHpoints), among other information.
11	NEB	It was proposed, on the one hand, the implementation of social networks (Facebook and Instagram), which are a means of effective communication for young audiences and, on the other, the creation of a website where young people may have knowledge of the #YouthUpPorto project, access to news, opinion articles, projects and other activities that drive civic, academic and solidarity development of these. These two channels together aim to increase the dissemination of information by all young people,

		schools and student and non-student organizations in the municipality of Porto.
12	Neptuno	Neptuno team outlined a plan that focuses on creating a presence on social networks and the consequent dissemination of events through them. This strategy would be complemented by the creation of an association called "Porto Youth Ambassadors ". The concusion is that very simple actions are needed and this plan could be put into action quickly and effectively.
13	Porto's Gambit	Several actions were suggested: - Creation of a network of ambassadors - YouthUpPorto rebranding (creation of logo and slogan) - Strategic dissemination through posters, social networks - Creation of project presentation sessions in School Groups and Higher Education Institutions at the end of the school year - Remodeling of the "Youth" section of the Chamber's website to facilitate consultation and navigation - Planning with a concrete schedule of activities and with a follow-up that allows not only the acquisition of knowledge, but also the critical thinking the ability to make decisions - Encourage the participation of young people session after session, linking several sessions, so that the monitoring of the acquisition goals of competences is progressive and continuous - Simplification of the reports of the existing activities in the project - Among others
14	SolveToWin	The solution is to create a multidisciplinary team, made up of young people, with greater human capital. In order to ensure a good management of the team, a structure with 6 levels would be implemented: Training, Participation, Information, Analysis, Professional and Human Resources. The plan for implementing the solution is based on the disclosure of #YouthUpPorto, recruitment and training of team members.
15	VO.U.	Several actions were suggested: - Creation and investment in social networks (Instagram and Facebook) - "Plataforma da Juventude Invicta" - Information Integration Site for all activities promoted by CMP and youth associations - Teasers - Video promoting activities to be carried out

		- "Youth Connection Circle" - EJP publicity stand at events taking place at the week of reception for new students + Contribution Point - Academia da Juventude Invicta - Awareness and empowerment program for youth secondary school youth

The feedback received was very positive and the initiative was considered a success.
We had more than 100 students involved in the challenge and, of those, 57 went through the complete process. The attendance rate of the training sessions was above 90% which represents the interest and motivation of the participants. The mentors were very helpful and available in all phases.

Impact

The Challenge program 2 narrowed down the thematic focus to a single challenge, promoting the competition among participants. They were motivated about both having an impact on their city, and, at the same time, benefiting themselves. In fact, students had access to content, training, and mentors that otherwise would be harder to be in contact with. Besides, the accreditation of the event, algo gave credibility to the students.
The connection with the Sustainable Development Goals was also valuable to the participants in the sense they were able to understand that it is possible to "do well", benefiting themselves, the economy, and the society, while "doing good", helping others.
The possibility of implementing the solution after the program, working side by side with the Municipality is seen as a great opportunity for students to develop their skills. Moreover, besides the winning team, part of the other proposed solutions will be incorporated into the public policies of the municipality, which was well received by the participants.

Visuals

Estudantes procuram soluções inovadoras para problemas do Porto

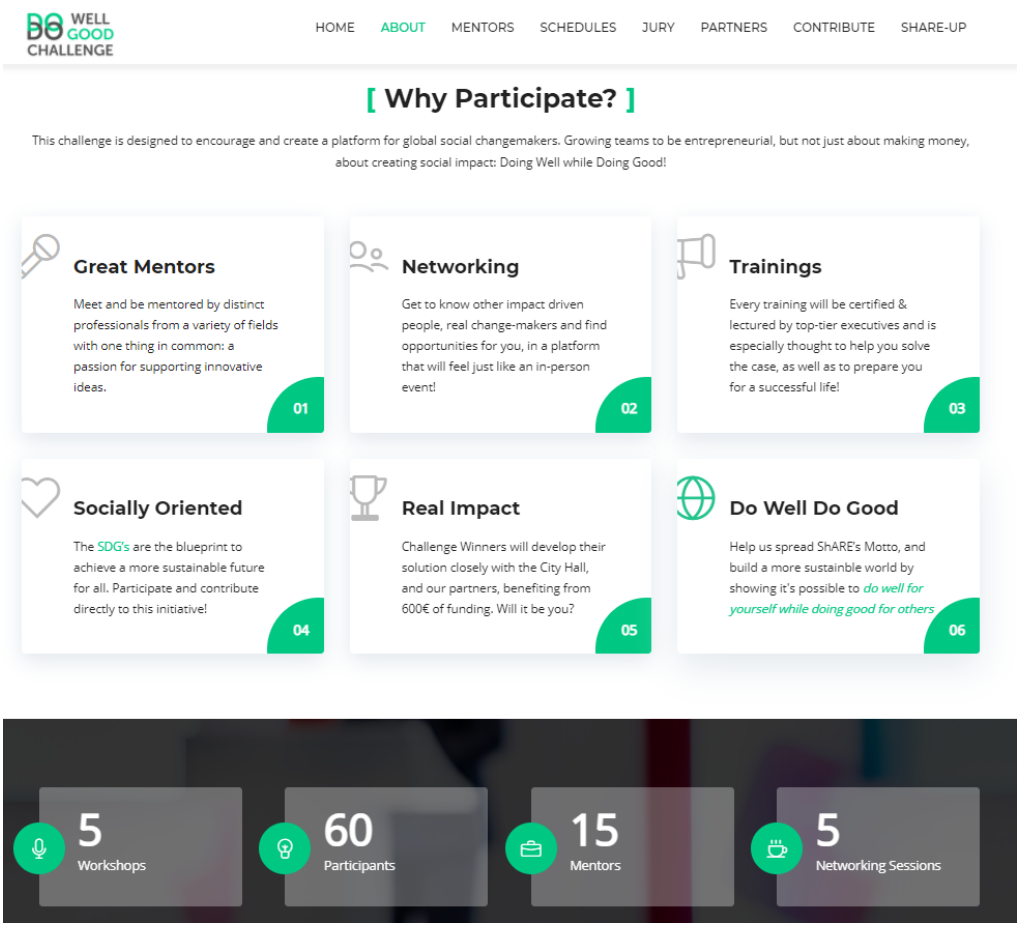
05.03.21 Por Tiago Reis / REIT e Helena Pinto / Porto Business School

Desafio promovido pela Share-UP, Porto Business School e Gabinete da Juventude da Câmara Municipal do Porto é aberto a todos os estudantes da U.Porto.

Depois de uma primeira fase de formação, os participantes terão que resolver um caso de estudo focado num problema identificado pela CMP / FOTO: U.PORTO

A **ShARE-UP**, em conjunto com a **Porto Business School** – no âmbito do projeto UCity Lab – e a **Câmara Municipal do Porto (CMP)**, está a promover a 1ª edição do ***Do Well Do Good Challenge***, uma "maratona" de ideias que desafia estudantes da Universidade do Porto a encontrarem soluções inovadoras para problemas reais dos jovens do Porto e que, ao mesmo tempo, contribuam para o desenvolvimento sustentável da sociedade e da cidade.

Promotion mentioning UCITYLAB



Overview of the program

Presentation of the winning team

Institute for Innovation and Development of University of Ljubljana

GENERAL

Short summary

For the UCITYLAB program implementation in Ljubljana, the Institute for Innovation and Development (IRI UL) partnered up with the Department of Ethnology and Cultural Anthropology of the Faculty of Arts, University of Ljubljana. The pilot was curriculum-bound and implemented within three one-semester master courses over two study years, involving three groups of anthropology students. The key aim of IRI UL's pilot was to integrate the concept of people-centred development approach into anthropology teaching and learning and to incorporate anthropological expertise, research methodology, and theory into the development processes of solutions to urban challenges. With the support of academic and practitioner mentors, student teams were tasked with applying ethnographic methodology to design and co-create research-based project ideas (concepts). Overall, the IRI UL Challenge projects involved 7 stakeholder organisations, 39 students, and resulted in 10 project ideas, developed by student teams. The structure, concept and content of the UCITYLAB pilot program, developed over the three iterations, has created valuable impact in for the involved stakeholder groups, in terms of expanding the students' knowledge and competencies, building and strengthening collaboration among stakeholder organisations across disciplinary and sectoral boundaries, and integrating problem- and project-based learning into the curriculum. The challenge project is currently being continued beyond the UCITYLAB project's lifetime – a fourth group of students has embarked on tackling urban sustainability challenges through a problem- and project-based approach.

Background

The IRI UL pilots were conceptualised on the basis of two key identified needs: the need for people-centred expertise in initiatives tackling urban sustainability issues and the lack of problem-based learning opportunities for social science and humanities – in particular anthropology – students.

While there are a number of initiatives, which support collaboration between the University of Ljubljana and external city stakeholders (such as public administration and governance, research organisations, NGOs or businesses) in teaching and learning, the collaborative potential has not yet been fully exploited or is driven mainly by individual enthusiasts on either side, even though these requirements are increasingly being recognised and addressed through different organisational (strategic and operational) measures, such as for instance dedicated University offices (see also UCITYLAB Status Quo Report). While individual study fields may have more opportunity for engaging with urban challenges and urban stakeholders within their study curricula, the availability of project- and problem-based learning experiences in anthropology is rather scarce or is oriented towards particular themes (e.g., museology). In effect, this is narrowing down the general (public) perception of applicability of anthropological knowledge and methods in governance, policy-making, business, or industry, as well as the

students' understanding of where their knowledge, competencies and skills could be meaningfully applied.

At the same time, it has been increasingly recognised that sustainability challenges require an interdisciplinary approach – one which also incorporates the social dimension into the context of developing sustainable, people-friendly, and smart cities. Diverse solutions to urban challenges, be it (public) services, policies, or products, often lack an understanding of the specific cultural, social, or behavioural insight, which hampers their uptake or impact, while anthropological and SSH methods can provide an effective methodological and conceptual toolkit to address urban challenges through a people-centred research and development approach.

Engaging researchers and students into collaborative, cross-sector and cross-disciplinary projects that address urban challenges locally could enhance the recognition of the relevance of such knowledge and methodology on the side of external stakeholders, as well as opportunities for students and academics to gain experience and competencies for working in such environments and addressing specific sustainability issues. The two broad topics selected for UCITYLAB challenge projects – urban mobility and waste – were selected on the basis of their relevance for Ljubljana and the involved stakeholders, previous experience, and their potential for multi-faceted exploration using ethnographic research methods.

Challenge project 1

Nature of program

Types of activity: The program involved lectures and workshops with theoretical and methodological inputs, ethnographic team research and field visits, a concluding event and presentation of team projects, and written assignments (reflexive essays).
Formality: The program was curriculum-bound and integrated into the Epistemology of Everyday Life course at the Department of Ethnology and Cultural Anthropology, Faculty of Arts, University of Ljubljana.
Level of initiative: master program

Length

One semester (October 2019 – January 2020)

Motivations and Objectives

Based on the background and context, the key objectives of the Challenge Project addressed the identified needs, both on the side of the involved HEI and its students, as well as the engaged external stakeholders.

Primarily, the Challenge project was designed to provide the anthropology students with an opportunity to:

- enhance their theoretical knowledge by introducing elements of the *people-centred development approach*, as well as insights into theories of complex systems, emerging technologies etc., which were hitherto not significantly addressed within existing curriculum;
- apply this knowledge and methodology to concrete urban challenges and a safe space to experiment with different research and co-creation techniques;
- strengthen their competencies for working in an interdisciplinary team and with external stakeholders;
- gain new knowledge on specific urban challenges through engagement with practitioners from different fields (research, business …).

Likewise, the Challenge project 1 was designed to:

- initiate collaboration between the different stakeholders and explore synergies;
- introduce the concept of people-centred development and showcase the applicability of anthropological research methods; and
- engage with the two selected urban challenges (topics) through exploratory research projects to identify most promising areas for further research and cooperation.

Stakeholders

- Department of Ethnology and Cultural Anthropology, Faculty of Arts, University of Ljubljana (Ljubljana, Slovenia)
    - integration of the pilot in the curriculum, engagement of students and faculty
- Research Centre of the Slovenian Academy of Sciences and Arts, Institute of Slovenian Ethnology (Ljubljana, Slovenia)
    - cross-fertilisation of research activities, identification of research topics and challenges, student teams mentoring and feedback
- The Invisible Life of Waste: Development of an Ethnography-based Solution for Waste Management in Households (applied research project co-funded by the Slovenian Research Agency, L6-9364)
    - cross-fertilisation of research activities, identification of research topics, project partners participated in workshops and student feedback
- Voyego, company specialised in digitalisation of mobility, mobility as a service (Ljubljana, Slovenia)
    - identification of challenges, support to students, student feedback.

Process

Program inputs

The Challenge program involved 15 local and international master students at the Department of Ethnology and Cultural Anthropology, including Erasmus+ exchange students and students enrolled in a joint international master program Creole. The classroom activities (lectures) were carried out at the University of Ljubljana premises (Faculty of Arts, Faculty of Electrical Engineering) and utilised existing infrastructure. The program was designed based on the UCITYLAB Toolkit to involve a number of focus activities foreseen as Challenge project building blocks (modules), including theoretical insights, methodology workshops, innovation tools (people-centred design approaches), and communicating research results to non-academic audiences. Likewise, the Toolkit provided useful inputs for planning and carrying out the engagement of external stakeholders into program delivery.

Program activities

Number of challenges addressed: the students worked on two broadly defined topics (mobility and waste) and identified and addressed four challenges within these topics in four teams.

Activities related to program/challenges:

- Introductory workshop on urban challenges, people-centred development approaches (course instructor, IRI UL staff)

- Lectures on complex systems, relationship between people and technologies, emerging technologies, interdisciplinary research (course instructor)
- One-day *Co-Creation Workshop* on people-centred development approaches and interdisciplinary research at the Faculty of Electrical Engineering, including a short fieldwork conducted by interdisciplinary student teams (anthropology and electrical engineering) and end-of-the-day presentation of their work; "competition" between teams and prize – VR room experience for the winning team (course instructor, Invisible Life of Waste project researchers – Faculty of Electrical Engneering, IRI UL staff)
- Student team research - fieldwork, participant observation, interviews, analysis (supervised by course instructor and assisted by stakeholder organisations)
- Internal feedback (student teams and course instructor)
- Design of project concepts/ideas (student teams)
- Presentation of team project ideas and stakeholder "jury" feedback at the concluding event (all engaged stakeholder organisations)
- Written assignments for students: individual reflexive essays (course instructor)

Outputs & Impact

Outputs

Number, type, and scope of solutions produced

The student teams (3-4 students) developed four project ideas, addressing urban mobility and/or waste management challenges. As the Challenge Project 1 was conceptualised as exploratory research, the students were tasked with using ethnographic research to engage with city dwellers and use a bottom-up approach to identify concrete challenges within these two broader topics. Based on their research outcomes, they were tasked with co-creating concepts for projects (solutions), which could address the chosen challenge in an innovative way, while not restricting the format or scope of their proposed ideas. While some opted for developing a specific solution (the "Panopti-bin" and "Eco-bin", which combines waste and sustainable mobility), others considered a more "systemic" approach (managing waste in student dorms through various initiatives and the "TrashArt"). The main aim of the process was for the students to recognise how anthropological methods and tools can be integrated into the R&D processes of designing solutions for sustainable cities. The concept solution ideas were prepared as Power Point team presentations in a format fit for non-academic audiences, while the methodological, theoretical, and process considerations were presented separately in individually submitted reflexive essays.

Student feedback

Feedback on the process and experience in the Challenge project 1 was part of the students' individual final essays. Below is a selection of quotes from the 15 submitted essays, clustered around key aspects of the course and their takeaways.

APPLYING ANTHROPOLOGY / PROBLEM-BASED APPROACH

- "I feel that this project was a great way to bring together the theories that we learnt in the lectures and apply them in practical ways that can help society as a whole move forward with sustainable thinking."
- "I have to admit that for the first time in my life I started to think about me as a student of anthropology, that has the capacity to create something that will serve people's need in the future. The possibility to interact with anyone in this course, and the opportunity to work with other people that doesn't include the specific field of anthropology."
- "While writing this essay, I reflected on our work on the subject, which for me also meant facing the conflict between the necessity of action and theoretical or philosophical reservations about action. And (good) anthropology cannot avoid such conflicts. It is necessarily torn between two or more principles of operation, places, worlds ... Therefore, the anthropologist must be able to coexist in several worlds, mediate between them and integrate them into a whole that expands understanding. Such a short excursion to several worlds was for me the most important and most valuable part of the seminar." [translated from Slovenian]
- "Overall I think the 'hands on' approach concerning the topic was very useful. I enjoyed being able to address a real issue with my anthropological knowledge, as I felt like I was part of something bigger."
- "Compared to other classes, this homework insisted working outside of the borders of academical articles and official knowledge."
- "It was the first time for me to do the research of any kind. I particularly appreciated the people-centred perspective that makes people co-creators of knowledge. I was surprised by the power of observation as a methodology to do the research."
- "Personally, I see the value of this [course] in the fact that it opened new possibilities that are usually hidden behind the curtain of the academic life. [...] Business world was completely invisible, as if anthropologists could not do anything for the improvement of living conditions for the majority, for technological progress, for development of new ideas that influence people's everyday life."
- "it seems important to me that we develop skills that allow us to apply specific anthropological knowledge and worldview outside the ivory tower as well."
- "in my opinion, this course achieved its goals. Seeing where future fields of work might be was motivating as the field of humanitarian sciences is always really indefinite about this."

WORKING ACROSS DISCIPLINES AND SECTORS

- "As we saw when we worked with engineers, we perceive reality in a very specific way, we understand the world differently depending on our education, we pay attention to one or other things according to which we were taught to."
- "Feedback showed us that not everything is easy to carry out, even though the technological advancement of today's society. We become aware of our project realization problems."

- "I have a very good impression of the whole project. I liked the presence of specialist […] their feedback that gave me a feeling that maybe in future can be our ideas used."
- "It was also good that we had the evaluation committee from different institutions to give varied feedback. I was glad to hear two „tips" that pointed out two of the main shortcomings of our project."
- "The Co-Creation Workshop was a great opportunity to experience interdisciplinarity and its gains. (…) . I highly recommend repeating a workshop similar to the Co-Creation workshop as interdisciplinary work between two faculties as different as the Faculty of Arts and the Faculty of Electrical Engineering sheds light on how we all think and solve problems in patterns. (…) Working together therefor is a new way of solving important issues as waste management or urban mobility that are probably the biggest problems humankind has to face nowadays."

TEAMWORK

- "I enjoyed working with my group as we all contributed different ideas and were able to discuss everything more deeply than if I were alone in this project."
- "It was also very important to see ideas and fieldworks of other groups. It was visible creativity and people´s differences in thinking and doing things."

GENERAL

- "I found it important that we were supported in expression our opinion and ideas (…) we students are often too passive and don't express an opinion if we're not directly addressed."
- "it felt different than other courses and allowed us to express our ideas and step out of our comfort zone."
- "Finally, we needed to present our work because it helped us to be more familiar with presentations and I individually get ahead of the shame that I feel talking in public."

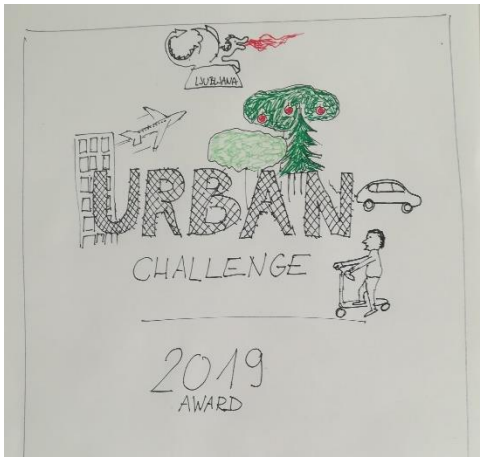
Impact

As seen in the students' evaluation of the program, the key aims and goals of the Challenge project 1 related to enhancing the students understanding and experience of applying anthropological methodology and knowledge to addressing urban challenges, and providing space and value for interdisciplinarity and collaboration beyond academic boundaries have been achieved. The students have demonstrated an understanding of where their anthropological backgrounds can be meaningfully applied and how they can use people-centred (research, ideation) skills to tackle everyday urban challenges. Likewise, they were able to experience the diversity of knowledge and approaches that are part of any (interdisciplinary) teamwork and to recognise the relevance of improving the required competencies.
In addition, the Challenge project 1 narrowed down the thematic focus of the two broad topics through exploratory research and initiated a close collaboration between the different stakeholders. During its implementation, two new international initiatives have been developed and have later successfully secured funding: two involved stakeholder organisations (IRI UL and Voyego) joined in developing a new initiative involving mobility and problem-based engagement

of anthropology students, and Department of Ethnology and Cultural Anthropology and IRI UL an initiative on teaching and learning anthropology.

Visuals

IRI UL team member (Introductory workshop at the Department of Ethnology and Cultural Anthropology)



Co-Creation workshop at the Faculty of Electrical Engineering, University of Ljubljana

Challenge project 2

Nature of program

Types of activity: The program involved lectures and workshops with theoretical and methodological inputs, ethnographic team research, a three-day co-creation camp and a concluding public event with presentation of team projects, and written assignments (reflexive/evaluative essays).
Formality: The program was curriculum-bound and integrated into the Epistemology of Everyday Life course at the Department of Ethnology and Cultural Anthropology, Faculty of Arts, University of Ljubljana.
Level of initiative: Master programme

Length

One semester (February – June 2020)

Motivations and Objectives

The Challenge project 2 built on the experiences and baseline developed in Challenge project 1. All motivations and objectives described in the previous chapter remained valid and in focus throughout IRI UL's UCITYLAB pilot implementation, addressing the identified needs, both on the side of the involved HEI and its students, as well as the engaged external stakeholders (see Challenge project 1). As the ideas and exploratory research delivered by the first batch of involved students had provided a baseline insight into the two urban topics (mobility and waste), both were continued in Challenge project 2, with the aim of further exploring concrete challenges and strengthening the synergies, collaboration, and value for the engaged stakeholders. In addition, the aims of Challenge project 2 included an expansion of the network of engaged external stakeholders and a strengthening of their involvement in the programme, as their feedback and support have proved especially valuable to the students, according to their evaluative feedback.

Stakeholders

- Department of Ethnology and Cultural Anthropology, Faculty of Arts, University of Ljubljana (Ljubljana, Slovenia)
    - integration of the pilot in the curriculum, engagement of students and faculty
- Research Centre of the Slovenian Academy of Sciences and Arts, Institute of Slovenian Ethnology (Ljubljana, Slovenia)
    - cross-fertilisation of research activities, definition of research topics and challenges, student teams mentoring and feedback
- The Invisible Life of Waste: Development of an Ethnography-based Solution for Waste Management in Households (applied research project co-funded by the Slovenian Research Agency, L6-9364)
    - cross-fertilisation of research activities, identification of research topics, project partners participated in workshops and feedback

- Voyego, company specialised in digitalisation of mobility, mobility as a service (Ljubljana, Slovenia)
    - identification of challenges, support to students, feedback.
- City of Ljubljana (municipality)
    - identification of challenges, guidance, feedback
- FH Joanneum, University of Applied Sciences (Graz, Austria)
    - co-organisation the International co-creation camp, workshops, joint activities with students of the Design and Communication institute from Graz.

Process

Program inputs

The Challenge program involved 14 master students at the Department of Ethnology and Cultural Anthropology. Only the initial classroom lecture was carried out at the University of Ljubljana premises (Faculty of Arts), while the remainder of the course was delivered remotely (online) due to COVID-19-related restrictions. The programme continued with further developing the Challenge project building blocks, as designed in the UCITYLAB Toolkit (including theoretical inputs, methodology workshops, innovation tools, and communicating research results to non-academic audiences), strengthening individual elements based on Challenge programme 1 experience.

Program activities

Number of challenges addressed: the students continued to work on the two topics in focus, mobility and waste, and identified and addressed four challenges within or across these topics (in four teams).

Activities related to program/challenges:

- Online introductory workshop on urban challenges, people-centred development approaches (course instructor, IRI UL staff)
- Lectures and workshops on complex systems, relationship between people and technologies, emerging technologies, interdisciplinary research, doing remote qualitative research (course instructor, stakeholders)
- Student team research – desk research, fieldwork, online interviews, surveys, analysis (supervised by course instructor and assisted by stakeholder organisations)
- Internal feedback (student teams and course instructor)
- Three-day online interdisciplinary *International Co-Creation Camp - Green and Fun Cities of the Future* on people-centred development & design approaches in co-organisation with FH Joanneum (Graz, Austria), Invisible Life of Waste project, and Department of Ethnology and Cultural Anthropology. Day 1: lectures and team formation (UCITYLAB student teams and students of design and communication from FH Johanneum). Day 2 and 3: building on qualitative research results, ideation and design (interdisciplinary student teams, 8-10 students). Day 4: Public online event and presentation of teams' project concepts (50+ attendees), feedback from external stakeholders and discussion

(IRI UL, ZRC SAZU, FH Joanneum, Voyego, Department of Ethnology and Cultural Anthropology).
- Written assignments for students: individual reflexive essays (course instructor)

Platforms used: Zoom (lectures, workshops, co-creation camp), Facebook, WhatsApp, Google Drive, Slack (international, interdisciplinary student teams)

Outputs & Impact

Outputs

The student teams (2-4 students) developed four project ideas, addressing urban mobility and/or waste management challenges. As the entire project-based learning had to be transferred to remote/online settings, the students were tasked with experimenting with remote qualitative research methods, as they were not able to conduct traditional ethnographic research which heavily relies on intensive personal contact. Based on online interviews and other data collection methods (surveys), they focused on gathering qualitative data on pre-selected challenges within the mobility and waste topics, and related to the specific situation caused by the pandemic. During the intensive 3-day international co-creation camp, the teams were joined by students of design and communication from Graz, Austria, bringing together data from both countries and contexts, ideating and designing solutions. Four digital solutions (service/business concepts and mobile apps) were presented by the international and interdisciplinary teams at the final public event (ReDish, SnackSaviour, DroneCare, ThinkLocal). The aim of the programme was to use qualitative research as baseline for development and design, and to experience working in an interdisciplinary development team. The concept solution ideas were prepared as Power Point team presentations in a format fit for non-academic audiences, while the methodological, theoretical, and process considerations were presented separately in individually submitted reflexive essays.

Student feedback

Feedback on the process and experience in the Challenge project 2 was part of the students' individual final essays. Below is a selection of quotes from the 14 submitted essays, clustered around key aspects of the course, as they emerged through their essays, and their takeaways (the quotes are translated from Slovenian and redacted for clarity where needed).

APPLYING ANTHROPOLOGY

- "[anthropology can be] used in developing and leading projects, institutions, etc., with the ability to obtain different data than for instance business studies. We, anthropologists are able to listen, understand and represent the public, that will also benefit from our products."
- "[in this programme] I found out how much we need anthropologists in developing new (technological) products. These are, after all, made for people, and anthropologists are the ones who know and understand people. I, on the other hand, experienced enlightenment with this new knowledge. Anthropology thus gained a new meaning in my eyes, and with all this I began to look forward to research work."

INTERDISCIPLINARY WORK

- "Given that we study at two different faculties and different fields, we each used our knowledge well in our own way in our research."
- "working with students from Austria gave us a preview of how working in a group with people from other disciplines is and how important it is not only to be an expert in your field, but also to be able to share your knowledge and adapt to group work."
- "The process of cooperation [in interdisciplinary teams] was very arduous and often exclusive, and only two anthropologists were active in the process, while they were also ignored several times. Some time ago, one of the professors explained to us what it's like to find yourself in a working group as the only anthropologist and how hard it is sometimes to be heard. This experience showed me just that in a way."
- "I liked that we worked in interdisciplinary teams and showed how different disciplines can complement each other and create something new."
- "I believe that the ability to cooperate and communicate with different individuals is a skill that is extremely important for participation in a project, which requires close cooperation and effective communication."
- "interdisciplinary cooperation we were able to experience during this seminar, showed us that anthropologists can increasingly contribute to development […] I strongly support further cooperation with the University of Graz (or with any other - depending on the possibility of partnership) and I hope that younger students will also have the opportunity to experience this."
- "[The experience of interdisciplinary teamwork] gave me an important lesson. It showed me that as an anthropologist, I would have to fight multiple times just to be heard."

REMOTE RESEARCH AND WORK

- "I liked how we could be connected, even though we weren't physically present in the same space. We got a new experience when we connected with students from Graz, and at the same time we also had a lot of fun. The downside of this limitation to being bound to the computer and the internet is that we couldn't do our field research in a physical setting."
- "The peculiarity of this year's seminar is probably that at the beginning of the semester we were hit by a pandemic, which left us without some of the classic forms of mobility (e.g., cancellation of public transport, ban on movement between municipalities, etc.), which proved also a great opportunity to reflect on (im)mobility and alternative forms of mobility."

PROBLEM- AND PROJECT-BASED LEARNING

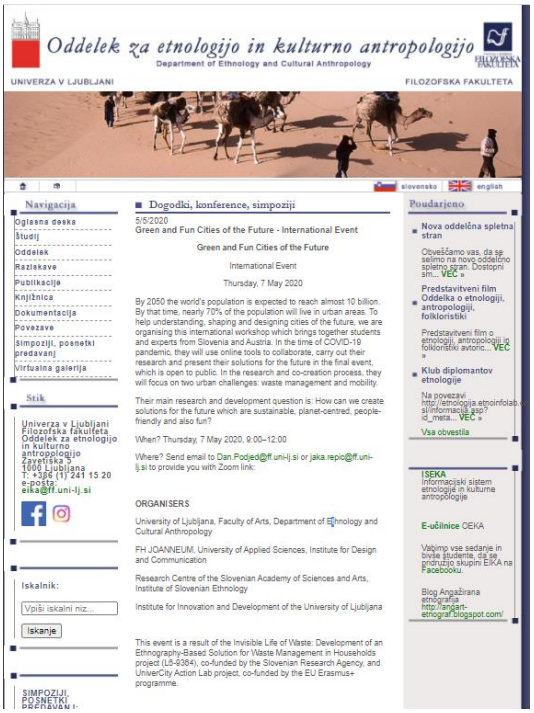
- "Project and more problem-oriented teaching seems to me to be a great idea, as it allowed us to express our creativity and ability to think outside the box."
- "I think that this kind of work should be maintained in the future as well."
- "I personally think that this kind of way of teaching, networking, exchanging opinions and (not only theoretical) knowledge is crucial for master's degree students, as we can chart our business / career in this way also beyond the boundaries of anthropology."

- "Project- and problem-based learning is new to me in our department, as we usually go into research on certain topics and do not look for solutions. I think that this project was extremely important for all students of the Slovenian department, as we were able to see how to use our anthropological knowledge in practice and how ideas are visualized. You get the feeling that you can contribute to changes in the country / world, which just reading articles without practical tasks in front of you rarely gives you."
- "I think this way of teaching and learning, which is more project-oriented and problem-oriented, is more than excellent, as we have experienced and learned very well how as anthropologists - with our knowledge and experience – can contribute to the fundamental work of this field but also elsewhere. Such a way of working gives us students an insight into the job opportunities as anthropologists, which are not the "typical" ones."
- "This kind of project and problem-based learning work taught me a lot of things. In short, it showed me how much anthropologists are needed in institutions where new solutions are being developed to make people's lives better and easier, and it also showed me a new dimension of our profession, that anthropologists are not just theorists, that our work can also be practical."

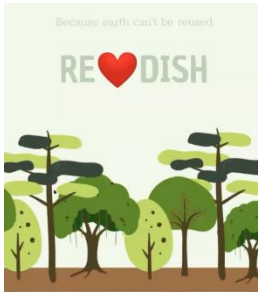
Impact

The analysis of student feedback and evaluation shows that the Challenge project 2 was successful in enhancing the students understanding and experience of applying anthropological methodology and knowledge to addressing urban challenges, as well as providing space and value for interdisciplinarity and collaboration beyond academic boundaries, even though the circumstances of delivery were different. Remote, online work and collaboration also proved to be the most challenging aspect of the programme – the students mentioned difficulty of online collaboration in larger teams (approx. 10 students) and the differing skills with using the different online tools and platforms. Nevertheless, the students were able to recognise the diversity of knowledge and approaches that are part of any (interdisciplinary) teamwork and gain new perspectives of how their disciplinary knowledge can be applied to diverse urban challenges.
In addition, one of the student teams was invited by external stakeholders to further develop their idea and later presented it at an international webinar ""Let's Learn Innovative Logistics!" (led by an Erasmus+ project). Another external stakeholder invited one of the students to participate in a hackathon and they later won the prize for "best pitch". Two students also published a blog post on an anthropological online platform, presenting their research and project idea.
The second Challenge project was also successful in widening the network of external stakeholder organisations and strengthening their involvement on different levels of the programme.

Visuals



Announcement of the International event *Green and Fun Cities of the Future* (Department of Ethnology and Cultural Anthropology, Faculty of Arts, University of Ljubljana).



Logos/visualisations of team project ideas (© Ethnology and anthropology students, University of Ljubljana, Slovenia & design and marketing students, FH Joanneum, Graz, Austria, May 2020)

Challenge project 3

Nature of program

Types of activity: The program involved lectures and workshops with theoretical and methodological inputs, ethnographic team research, concluding event with presentation of team projects, and written assignments (reflexive/evaluative essays).
Formality: The program was curriculum-bound and integrated into the Anthropology of Complex Systems course at the Department of Ethnology and Cultural Anthropology, Faculty of Arts, University of Ljubljana.
Level of initiative: Master programme

Length

One semester (October 2020 – January 2021)

Motivations and Objectives

Challenge project 3 built on the experiences from the two previous courses. The key motivations and objectives therefore remained valid and in focus throughout IRI UL's UCITYLAB pilot implementation (see Challenge project 1 and 2). The urban challenges that have been in focus since the beginning of the pilot (mobility and waste) were therefore further explored with the third group of students, additionally strengthening the synergies, collaboration, and value for the engaged stakeholders. The growing network of external stakeholders has provided a multifaceted insight into the urban challenges and experiences from different sectors – in order to add additional dimensions, the objective was also to further expand the network and include experiences from the non-governmental sector.

Stakeholders

- Department of Ethnology and Cultural Anthropology, Faculty of Arts, University of Ljubljana (Ljubljana, Slovenia)
    - integration of the pilot in the curriculum, engagement of students and faculty
- Research Centre of the Slovenian Academy of Sciences and Arts, Institute of Slovenian Ethnology (Ljubljana, Slovenia)
    - cross-fertilisation of research activities, definition of research topics and challenges, student teams mentoring and feedback
- The Invisible Life of Waste: Development of an Ethnography-based Solution for Waste Management in Households (applied research project co-funded by the Slovenian Research Agency, L6-9364)
    - cross-fertilisation of research activities, identification of research topics, project partners participated in workshops and feedback
- Voyego, company specialised in digitalisation of mobility, mobility as a service (Ljubljana, Slovenia)
    - identification of challenges, support to students, feedback.
- City of Ljubljana (municipality)
    - identification of challenges, guidance and support to students, feedback

- IPoP – Institute for Spatial Policies (NGO, Ljubljana)
    - Identification of challenges, support to students, feedback

Process

Program inputs

The Challenge program involved 10 local and international master students at the Department of Ethnology and Cultural Anthropology, including Erasmus+ exchange students. With the exception of the introductory lesson, the entire course was delivered remotely (online) due to COVID-19-related restrictions. The programme continued with further developing the Challenge project building blocks, as designed in the UCITYLAB Toolkit (including theoretical inputs, methodology workshops, innovation tools, and communicating research results to non-academic audiences), strengthening individual elements combining experience from Challenge programmes 1 and 2.

Program activities

Number of challenges addressed: the students continued to work on the two topics in focus, mobility and waste, and identified and addressed three challenges within or across these topics (in three teams).

Activities related to program/challenges:

- Introductory workshop on urban challenges, people-centred development approaches (course instructor, IRI UL staff)
- Online lectures and workshops on complex systems, relationship between people and technologies, emerging technologies, interdisciplinary research, doing remote qualitative research, urban mobility and waste management projects (course instructor, external stakeholders)
- Student team research – desk research, remote interviews, surveys, analysis (supervised by course instructor)
- Internal feedback (student teams and course instructor)
- Online final event and presentation of teams' project concepts, feedback from external stakeholders and discussion (IRI UL, ZRC SAZU, Voyego, City of Ljubljana, IPoP, Department of Ethnology and Cultural Anthropology).
- Written assignments for students: individual reflexive essays (course instructor)

Platforms used: Zoom (lectures, workshops, event), Google Drive, WhatsApp, Facebook Messenger (student teams)

Outputs & Impact

Outputs

The students were divided into two teams and developed two project ideas, one addressing urban mobility and the other waste management challenges. As the entire project-and problem-based learning continued in a remote (online) mode, the programme continued to include aspects of doing remote qualitative research. Based on desk research, online interviews and other data collection methods (surveys), they focused on gathering qualitative data. The two solutions (Drinking Buddy, Ljublja(na) Poti App) were presented at the concluding event, attended by external organisations' representatives (ZRC SAZU, IPoP, Voyego, City of Ljubljana and IRI UL). The concept solution ideas were prepared as Power Point team presentations in a format fit for non-academic audiences, while the methodological, theoretical, and process considerations were presented separately in individually submitted reflexive essays.

Student feedback

Feedback on the process and experience in the Challenge project 3 was part of the students' individual final essays. Below is a selection of quotes from the 10 submitted essays, clustered around key aspects of the course, as they emerged through their essays, and their takeaways (the quotes are translated from Slovenian and redacted for clarity where needed).

APPLYING ANTHROPOLOGY

- "Can anthropology be applied, or how does anthropology can be used as an immersive driving force, interacting with the social surrounding, in order to produce a useful impact to the lives of the people? Is anthropology a pure theoretical and analytical science or can it be an active component of change in the societies each individual researcher focuses? During […] this semester we came to face these questions in the most productive way this lockdown allowed us to, by developing in groups a project that would potentially have an immediate effect to the population."
- "[we] worked on a project that at first seemed somewhat irrelevant to anthropological research, since it lacked theory and the practical component prevailed. Soon enough, however, I came to realize that anthropological research with all its tools and way of conducting fieldwork in close association with its participants can be vital in these forms of implementation, such as our project aspired to achieve."
- "this seminar offered us an alternative, so far unknown to the most of us […] the idea of an applied anthropology, where research does not have to produce a paper […]. It aims to mobilize us and collaborate with our participants in the creation of substance that proves to be beneficial to the field, in our case an application of sustainable mobility."
-

CROSS-DISCIPLINARY AND CROSS-SECTOR COOPERATION

- "we had to deal with the productive, yet sometimes hard, endeavor of collaborating in teams in order to make a result that would satisfy all the parties involved"

- „I think it was excellent that we had people from outside of academia as guests because they gave as a fresh perspective and valuable commentary about potential improvements, problems and solutions."
- "One thing I'm grateful for is having this much guest lecturers who have shared their actual work experiences, as we are all interested in it and I personally did not get to experience it often."
- "I am very pleased that our solution came out this way and that we got valuable feedbacks from persons in eminent positions. In the (near) future, if some of them would ask us to help them in realising/implementing it, I would gladly respond to their call."

REMOTE RESEARCH AND LEARNING

- "Meeting people solely online is not the same, I noticed during this year that I get a much clearer picture of another person when seeing and experiencing them in person."
- "Since the pandemic forced us to conduct the ethnographic work online and via distance anyways, we decided to make the most of it and to do something that is usually not easily possible: we conducted field work with people from all over the world."
- Doing ethnographic work online is not the same as in person, lots of aspects are getting lost and can reduce the depth and quality of the data collected. However, it also opens up new possibilities that we, as researchers, should use in these special times.

PROJECT- AND PROBLEM-BASED LEARNING

- "I highly appreciated that the course covered both, the theoretical, conceptual aspects of complex systems and the practical, example driven issues arising from them."
- "I learned to think in the direction of applied anthropology, which has many advantages in the labour market. So far, my study programme has been mostly theoretical, so I am grateful for the opportunity for practical learning in this subject."
- "I think this project is going to contribute extreme value to my professional CV."

GENERAL

- "I learned a lot about presentation techniques, structuring slides and what a good presentation requires. Next to the content of the seminar, these are valuable life lessons that I will be able to take away."
- "The discussion and the topics covered in class and guest lectures seems to me to be very relevant, as they are increasingly marking modern society and I anticipate that in the future they will be an indispensable component of new social science theories."
- "One of the very elementary ways of how we as individuals can continually contribute to help combat environmental pollution is by improving our ways of managing waste. The seminar allowed us to be innovative in tackling this problem, as well as to adapt our knowledge of anthropological research to times of a pandemic."

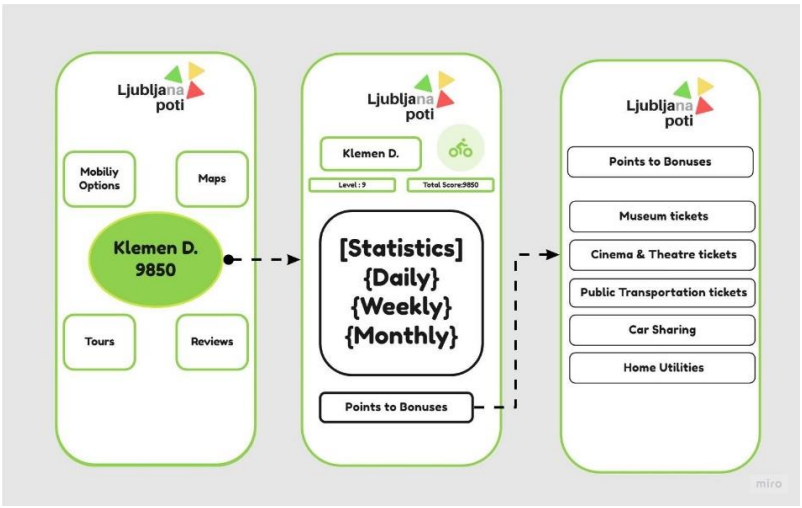
Impact

The analysis of student feedback and evaluation shows that the Challenge project 3 was successful in opening up new perspectives on how and where anthropological methodology and theory can be meaningfully applied. Collaborative and project-based work that stretches beyond disciplinary and specific sector knowledge have been appreciated by the students as something they have not been able to encounter before during their studies and that can bring value to their further academic and/or professional career. While online work and collaboration have again been recognised as limiting and demanding, the students also appreciated opportunities that remote research approaches can offer. The students were likewise able to recognise the diversity of knowledge that are part of any (interdisciplinary) teamwork and gain new perspectives of how their disciplinary knowledge can be applied to diverse urban challenges.

In addition, one of the student teams was invited by external stakeholders (City of Ljubljana) to present their project idea to the Digital Transition Working Group of the City of Ljubljana. Challenge project 3 was also successful in widening the network of external stakeholder organisations (IPoP) and strengthening the involvement of stakeholders on different levels of the programme.

Overall, the problem- and project-based approach developed through the three UCITYLAB pilot Challenge projects created a valuable impact on all key involved stakeholders. The approach to teaching and learning, the content (urban sustainability challenges – mobility and waste; and people-centred development approaches), collaboration with external stakeholders, the pillar concepts of modules (see UCITYLAB Toolkit), and other developed elements (Co-Creation Camp and interdisciplinary student teams in cooperation with FH Joanneum) are being continued beyond UCITYLAB project's lifetime into the second semester of 2020/2021 study year, integrated into the study curriculum.

Visuals



Logo and concept for "Ljubljana poti" project idea (© students at the Department of ethnology and cultural anthropology, Faculty of Arts, University of Ljubljana, Anthropology of Complex Systems course, Fall semester 2020/2021)

GENERAL

Short summary

Within the framework of the UCITYLAB project, the Universitat Autònoma de Barcelona has implemented the Covadonga Urban Lab as a pilot project located in the city of Sabadell (Barcelona). This proposal relates the university from its widest meaning with the city and the territory, creating a new space for experimentation, co-creation and collective innovation.

As an urban laboratory, it is an open space for citizenship and the social and urban stakeholders of the city who want to imagine, create, test and implement solutions to solve the main social, urban and environmental challenges that the city of Sabadell and the neighbourhood of Covadonga are facing today and with a look on the near future.

To make it possible, on the one side, the Local Interest Group formed by these urban and social stakeholders have defined the challenges through participatory workshops and activities. And on the other side, the students of the five participant HEIs have based their proposals on the solutions for that challenges. In total, more than 250 people and 43 stakeholders have participated in the process.

The result has been a compilation of projects and proposals for Sabadell and the neighbourhood of Covadonga that provide a cross-disciplinary and contemporary approach to the current problematics, as well as an "Agreement" supported by several local stakeholders, aiming to enhance the proposals to become a reality in a near future 2030.

Background

Covadonga is a neighbourhood of the city of Sabadell that has an important human capital and several assets with potential. There are located facilities of local and territorial significance, like the UAB, Fira de Sabadell, Parc Taulí Hospital and its research institute, the Club Natació Sabadell, among others. For this reason, it is a dynamic and innovative neighbourhood within the city. However, the existing innovation points are quite disassociated between them and the residents. The industrial past of this area constitutes a valuable legacy and heritage, but as happens in other cities with a similar situation, the deindustrialisation has affected the urban fabric in many ways: productive, social, architectonic, environmental, and so on. At the same time, this issue has contributed to the loss of talent retention capacity able to produce innovation and knowledge.

In a community level, the neighbourhood of Covadonga possess an active associative and neighbouring network. One part of this social fabric is living in the area since a long time, so the elders that more intensively suffer the lack of investment and renovation, reclaim improvements of the urban environment and the life quality of its inhabitants.

From a planning perspective, Covadonga is an isolated neighbourhood, limited by the arterial road called Gran Via and the Ripoll River. Although is the access door to the Central District of the city, mostly it works as an appendix of the city centre. The neighbourhood has plenty of old buildings, with several examples of the called "English house" typology, as well as a relevant industrial part. Today there still exist land reservations for facilities pending of expropriation procedures, and there exist empty industrial buildings that could allocate new uses and activities. Although the river park is close to the urban area, there is a lack of public spaces of quality and open green spaces.

In this sense, the river park is the big green space of the city, although it still has to recover its ecologic state. The access to the river from the neighbourhood is complex and the accessibility is not solved correctly in many cases, so the city still gives its back to the river. This situation makes that the connection between Covadonga and Torre-romeu (a low-income class neighbourhood on the other side of the river) almost does not exist because of the lack of connectivity and also due to the topography. Consequentially, the connection and proximity to the river is not an added value for the neighbourhood and its inhabitants, since they use it as much as the other Sabadell's citizens do. So, the accessibility situation to the river and the rather poorly condition of the public spaces, makes that today Covadonga isn't an easy and suitable urban space for the sport practice and doesn't promote a healthy lifestyle. Nevertheless, there is a highly-trafficked activity in the river park that sometimes clashes with other users, like for example, the cycling traffic especially during weekends.

In relation to sport and sport practice, Covadonga has specific public and private facilities dedicated to sport. Some of them are of regional interest, use and reference, while others remain underused. Considering the stakeholders that develop R+D+I and that are located in the neighbourhood, there appears new opportunities to articulate and consolidate an ecosystem around sports able to promote Sabadell as a sport city in an international and national level and keeping Covadonga at the centre of this activity. There is also the potential of other facilities of other sectors related to sports like health (with the Hospital Parc Taulí) or more crossed-sectors like technology (with the Engineering School of UAB) or design (with ESDI). This situation makes possible the exchange of resources and collaborations to consolidate this sector in the district. Some of these relations already happen today, like the example of Samuntada school, which has a collaboration agreement with the Hospital through the Magnet Project (an education programme to share the medical knowledge with the children school projects) or with the Club Natació Sabadell, with the extracurricular swimming activity in their facilities.

According to mobility, in Covadonga the lead mobility system is the private vehicle. Every day, through Gran Via circulate 40.000 cars, 5.600 of which do it through Covadonga Street, since it is commonly used as an alternative to the first, and also because it has become the free parking to the city centre. As a consequence, there exist a very important acoustic pollution, especially in these two streets. Also, the lack of security and the amount of space destined to the private vehicle point out as relevant problems. The inexistence of cycling paths or pedestrian streets, the lack of public transport and the poor situation of the street-sides make the situation worse.

It is especially difficult the access with public transport to the sport area of Sant Oleguer. At the same time there exist an insecurity perception, principally accused for those collectives more vulnerable (women, children, elders, disabled, etc.).

Regarding the environmental problems, the district suffers important acoustic and air pollution, mainly caused by the traffic of vehicle within the district and Gran Via, but also by polluting activities within the neighbourhood, like the iron foundry or the bush burning in the river area. The temperature inversion, the lack of trees and green areas and the heat-island effect worsen the pollution situation.

The waste management model is still lineal, with a high generation of waste and a low re-use in a local district and city level. The implementation of a circular economy model has still a long way to go. The same happens with the energy auto-production and the solar/photovoltaic energy consumption. In these cases, there exist municipal incentives to promote these renewable sources but their implementation is not generalised at all. To sum up, the district is not prepared to face the coming changes related to energy transition and climate emergency, which will be some of the principal challenges in a global level.

To finish, it is worth to highlight some previous experiences and projects that UAB has participated / promoted in the municipality like other research programmes and initiatives like the Plan for Territorial Specialisation and Competitivity (PECT Generalitat de Catalunya), Relos3 (Interreg), Gen Y City (COST Action) or Triangulum (Lighthouse H2020). These experiences have constituted a basis and a starting point to propose Covadonga as an especially suitable space to develop the following pilot project, as well as generate complicities with the public administration.

Covadonga Urban Lab

Nature of program

The Covadonga Urban Lab has involved **seven courses from five universities**. With their work, the students have provided solutions to the urban, social and environmental challenges identified and defined by the Local Interest Group.

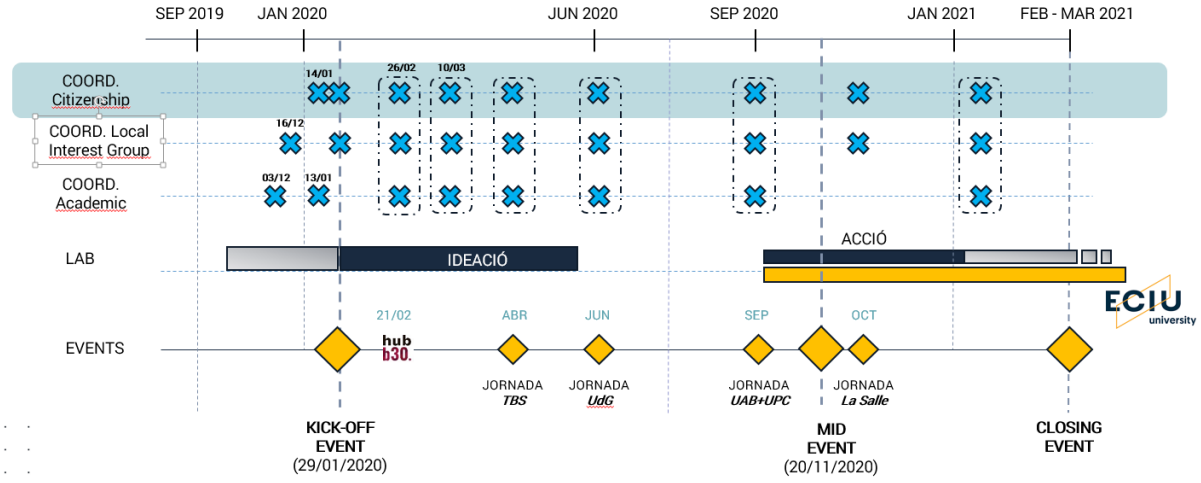
The activities of each course have been developed within the same course programme, being these curricula-bound activities. They have been of different nature: field visits and workshops with local stakeholders[1].

It is worth to highlight that the participation from different levels of the initiatives (Bachelor, Master and Postgraduate) and from different fields of study (Technology, Planning and Social Sciences) have provided a variety of approaches and solutions to the real challenges.

Length

Although the Covadonga Urban Lab has been **one year of duration** within the framework of the UCITYLAB project, it is conceived as a **long-lasting proposal** that can continue beyond the end of the European project. It started with the first coordination meetings on December 2019 conducted with the Academic Group and the Local interest group.

During 2020 is when the main part of the pilot project have been **developed following a two-steps idea**: the first part of "ideation" consisted in the definition and concretion of the challenges; the second part of "action" consisted in the first implementation of the proposals resulting from the previous process.



Implementation calendar of the Covadonga Urban Lab

[1] Due to the COVID19 situation, some of the foreseen activities planned at the beginning of the project, like open lectures and other events, were not possible to develop.

Motivations and Objectives

During the last years, the UAB and Sabadell City Council have been collaborating through different projects and initiatives tackling different problematics and tendencies. This close collaboration has generated, on the one side, a better knowledge of the capacities and needs of each institution, and on the other side, has allowed the identification a series of real challenges that Sabadell was facing as a metropolitan city.

Although the headquarters of UAB are located in Bellatera (Cerdanyola del Vallès), in Sabadell there is the UAB Sabadell Campus first stablished in the nineties and which integrates technology and business studies. It is located on the Covadonga district, becoming one of its potential assets. On this basis, this was conceived as an opportunity to become more engage with the city and also involve the local community, opening the university to the citizenship and involving it through a participatory project beyond the institutional spaces, creating new complicities and a wide network.

Due to the potential of the neighbourhood and knowing its capacities and assets, within the framework of the UCITYLAB the Universitat Autònoma de Barcelona with the complicity of the City Council decides to work on Covadonga its and surrounding area.

Being a HEI aiming to have an impact to the territory from an innovation, research and knowledge perspective, the implication of university courses and students to this process was seen as a good opportunity to facilitate the exchange and resources fluidity and to enhance the social relevance of these courses curricula while contributing to the social engagement by involving the academic community in the resolution of real challenges. The fact of opening this proposal to other HEIs apart from UAB and involving them as an academic group was seen also as an opportunity to generate more critical mass on the working issues, spreading along the challenge-based methodology developed within the UCITYLAB project.

Stakeholders

Program's partner organisations:

For the development of the process, the participant stakeholders have been organised in four different groups:

- Academic Group: it is formed by the professors of the courses participating in the pilot project. In total, 7 studies from 5 different universities participated in the project. Together with the students of these courses they have developed creative proposals that tackled the four challenges proposed by the project from their specific fields of study. They have used all the information generated in the workshops developed with the Local Interest Group. The participant courses and universities / HEI have been:
    - Universitat Autònoma de Barcelona (UAB): Bachelor's degree in Psychology, Bachelor's degree in Business and Information Technology; Bachelor's degree in Geography.

- Universitat de Girona (UdG): Bachelor's degree in Architecture
- Universitat Politècnica de Catalunya (UPC): Postgraduate in Smart Cities.
- Toulouse Business School – Barcelona (TbS): Master in Management
- La Salle – Universitat Ramon Llull: Master in Technologies for the Smart Cities and Smart Grids.

- Impeller Group: it is formed by staff from UAB and Ajuntament de Sabadell (Sabadell City Council), specifically from the departments of Economic and Business Promotion, Innovation and Urban Planning (Ajuntament de Sabadell) and Parc de Recerca and the Department of Strategic Development - CORES UAB (Universitat Autònoma de Barcelona). Their role has been to support the conceptualisation and development of the project, creating the space and the opportunities from which to create and develop the Covadonga Urban Lab in the specific context of Sabadell and collaborating in the concretion of the proposed challenges and main urban ideas for this city.

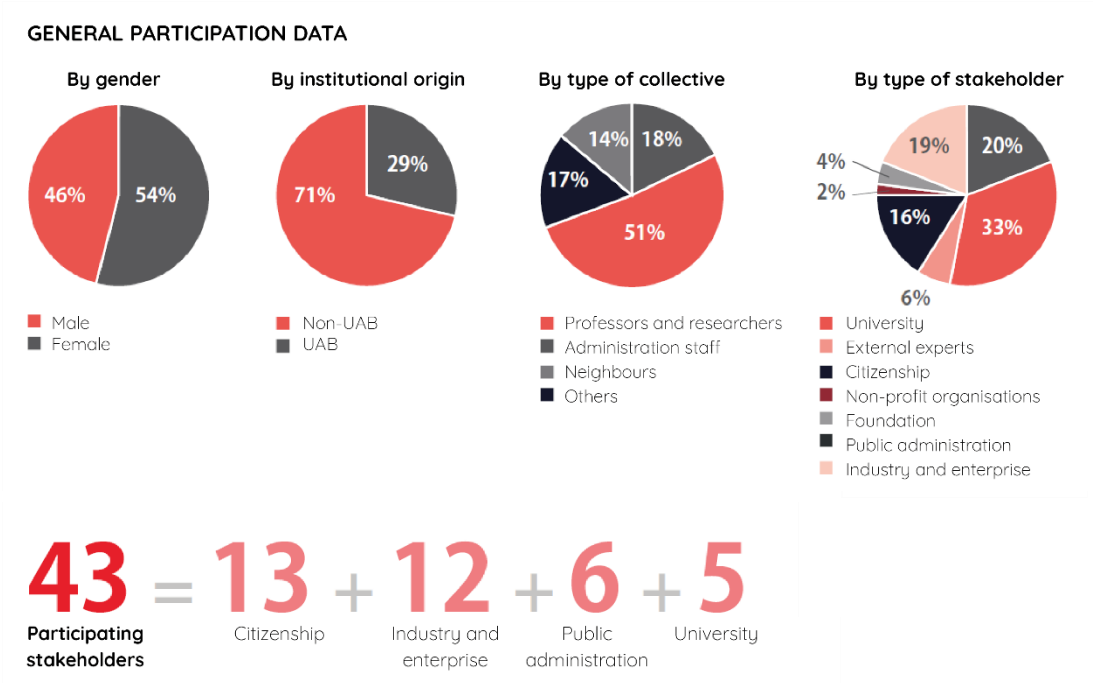
- External Experts: it is formed by professionals working in the context of Sabadell from different fields of interest. They have provided support for the understanding of the local context in relation to the urban challenges.

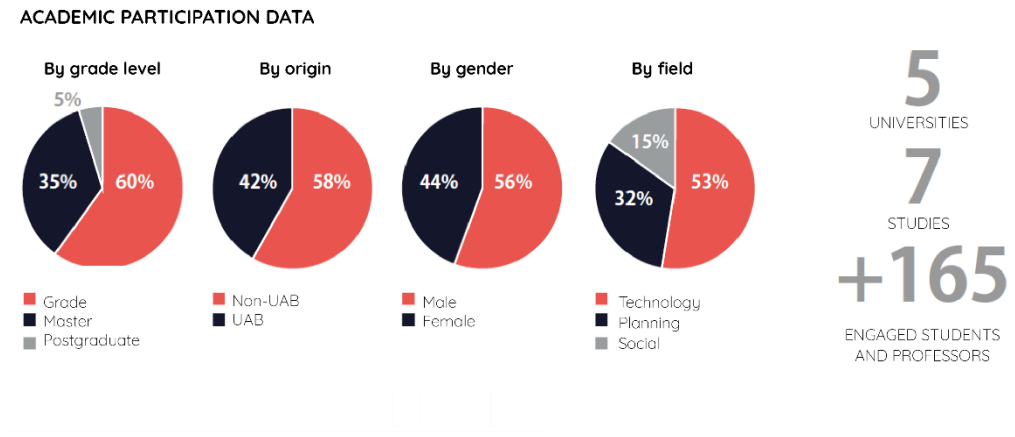
- Local Interest Group: following a quadruple helix scheme, it is formed by organisations and people from the academy, the public administration, the industry and enterprise and the citizenship. The main part of these organisations are based in Sabadell, but there were others (especially in the case of public administrations) that respond to a regional scale. Their role have been the definition of the challenges participating in the workshops and events organised within the framework of the project. The next step of this pilot project foresees the engagement and implication of some of these stakeholders in the real development of some of the proposed proposals. During the last stage of the pilot project, some steering committees and/or working groups on these proposals have been created.

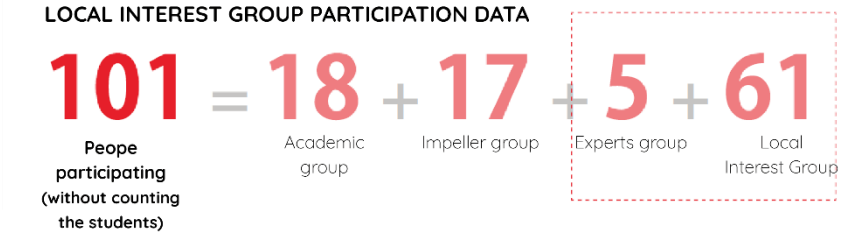
Members of the Local Interest Group forming a quadruple helix scheme

Participation data:

During the implementation process, more than 250 people have participated directly in the activities and the process, with the engagement of 43 different organisations. Trying to preserve the idea of the quadruple helix, there have been an important variety of types of stakeholders but also of participant collectives, having professionals/experts and non-experts at the same time.







Graphics of participation data

Process

Program inputs

More than 150 students from 7 university courses of 5 different HEIs have participated in the project:

UAB – Universitat Autònoma de Barcelona

- *Bachelor's degree in Psychology*
  Course: Integrated Practice
  Responsible professor: Miquel Domènech
  Number of participating students: 31
- *Bachelor's degree in Geography and Regional Planning*
  - Course: Applied Human Geography
    Responsible professor: Pau Avellaneda
    Number of participating students: 9
  - Course: Cultural and Social Geography
    Responsible professor: Pau Avellaneda
    Number of participating students: 4
- Bachelor's degree in Business and Information Technology
  Course: Innovation Technologic Projects
  Responsible professor: Glòria Estapé
  Number of participating students: 43

UdG – Universitat de Girona

- *Bachelor's degree in Architecture*
  - Course: Urban planning 3
    Responsible professor: Nadia Fava
    Number of participating students: 28
  - Course: Urban planning 4
    Responsible professor: Marta Carrasco Bonet
    Number of participating students: 23

UPC – Universitat Politècnica de Catalunya

- *Postgraduate Programme in Smart Cities*
  Course: Final project
  Responsible professor: Blanca Arellano
  Number of participating students: 11

TBS – Tolouse Business School - Barcelona

- *Master in Management*
  Course: Digital Transformation
  Responsible professor: Rubén Cánovas Mas
  Number of participating students: 77

La Salle – Universitat Ramon Llull

- *Master in Technologies for the Smart Cities and Smart Grids*
  Course: Final Master's Project
  Responsible professor: Ramón Martin de Pozuelo
  Number of participating students: 3

During the previous coordination sessions with the Academic Group, the Teaching Toolkit was officially presented to the involved professors. Previously it was distribute by email, so during the sessions we could discuss it and compile the feedback provided by the Academic Group.
In their turn, they integrated and adapted the working scheme proposed in the toolkit and applied in their own courses. The Teaching Toolkit has also been used to further enrich CBL processes within the UAB and reinforce them methodologically.

Program activities

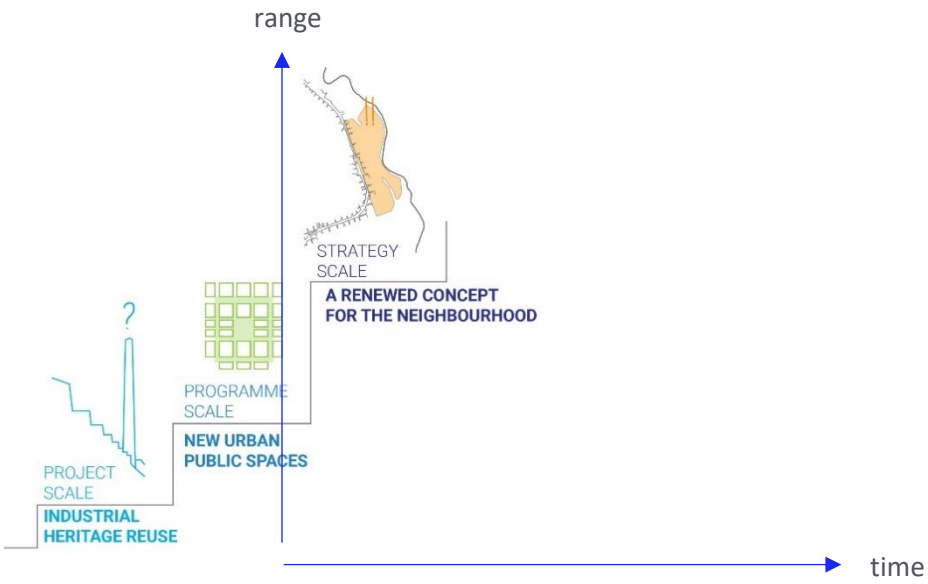
In the Covadonga Urban Lab four main challenges were addressed:

> Challenge 1. District of Innovation, Knowledge and Culture: Which are the necessary steps to transform the Covadonga District in a rich, vibrant and resilient innovation ecosystem that promotes knowledge and culture?
>
> Challenge 2. District of Sport and Health: How can we tackle the social, environmental and economic challenges that poses the current situation of climate emergency through innovative solutions that support the transformation of the metabolism of our cities and territories?
>
> Challenge 3. Circular District for the ecologic and energy transition: How can we promote healthier lifestyles and habits from an innovative and transforming urban design and from the social digital innovation?
>
> Challenge 4. Inclusive District for the social spatial justice: In which way can we achieve that the Covadonga district is an open and inclusive space for the city and the adjacent districts, where public participation and collaboration are key processes for the urban design, the citymaking and the digital innovation?

To define them, the process started from four main urban ideas (underlined in previous paragraphs). During the participatory process, the participant stakeholders of the Local Interest Group were asked to define and specify more on these four ideas converting them into challenges. Since they responded to three different scales, according to the scope of the possible proposal, the following processes adapted to this change of scale by:

- Starting from a strategy scale, with the definition of the four main urban ideas, which are:
    - Innovation and Knowledge
    - Sport and Health
    - Energy and Ecologic transition
    - Social Inclusion.
- Once the strategic challenges have been defined, there appeared the programmatic challenges, which were classified according three categories:
    - Urban intervention,
    - Organisation and Governance
    - Policies.

- Afterwards, the process continued with the list and proposal of specific projects in a smaller scale.



Scheme of the challenge hierarchy or scale

Scheme of the strategic and programmatic challenges addressed

To address the challenges and propose solutions, different activities were developed, according to the reference working group:

Previous coordinating sessions with the Academic Group - Validation Meeting

Aim: Discuss the ways of collaboration and share each one's interest and possibilities of participation within the courses. Presentation and discussion on the Challenge Teaching Toolkit.
Tool: None
Method: Speaking presentation and discussion.
Total number: 2
Participants: 10 + 7 (Professors of the HEIs courses involved.)
Location: Campus UAB Sabadell
Date: December 2019 and January 2021

Previous coordinating sessions with the Local Interest Group -Network Meetings

Aim: Explanation of the project and the context, and first introduction of the four main urban ideas / strategic challenges.
Tool: Canvas + post-its
Method: Speaking presentation and discussion by small groups on canvas.
Total number: 2
Participants: 22 + 18 (Local Interest Group + Academic Group).
Location: Campus UAB Sabadell
Date: December 2019 and January 2021

Project's kick-off (includes project's presentation and working session) – working session
Aim: Define and specify the challenges in the different scales.
Tool: Canvas + Map
Method: Work in small groups with the help of a coordinator.
Total number: 1
Participants: 34 (Local Interest Group + Academic Group + Impeller Group)
Location: Espai Emprius (Sabadell)
Date: January 2021

Working sessions with the Local Interest Group - Network Meetings
Aim: Define and specify the challenges in the different scales.
Tool: Canvas / Canvas + Map
Method: Work in small groups with the help of a coordinator.
Total number: 2
Participants: 28 + 69 (Local Interest Group + Academic Group + Students (in one of the sessions)
Location: Campus UAB Sabadell and Espai Emprius (Sabadell)
Date: February and March 2021

Co-organized activities – working session
Aim: Hub B30. Innovation Brunch about the Challenge 2- *Sport & health district*.
Tool: None
Method: Speaking presentation and discussion.
Total number: 1
Participants: 40
Location: Campus UAB Sabadell

Student's presentations of their projects and proposals - Multiplier Event 1
Aim: Presentation of the results to the local stakeholders.
Tool: Virtual platforms for online conference (Zoom, Google Meat, Microsoft Teams)
Method: Speaking presentation and discussion
Total number: 4
Date: 31 March 2020 -Toulouse Business School
Participants: 77 students + 1 professor + 12 members of Local Int. Group
Date: 10 June 2020 - Universitat de Girona
Participants: 51 students + 2 professors + 28 members of Local Int. Group
Date: 15 September 2020 - Universitat Autònoma de Barcelona & Universitat Politècnica de Catalunya
Participants: 55 students + 3 professors + 16 members of Local Int. Group
Date: 20 October 2020 - La Salle – Universitat Ramon Llull
Participants: 3 students + 1 professor + 10 members of Local Interest Group
Total number of Participants: 265
Location: virtual

Mid-Final (Closing event) - Multiplier Event 2

Aim: Project process updating and closing presentation of the strategic projects for the district
Tool: None
Method: Speaking presentation and discussion.
Total number: 1
Participants: 28
Location: virtual

Platforms used

Microsoft Teams / Zoom / Google Meet

Online platforms for virtual conferencing and meetings. They were the platforms used during the online meeting and events with the stakeholders (in the case of Teams) and for the students' presentations (Zoom and Google Meet).

Unicorn

Link: https://unicorn.uab.cat/processes_groups/7?locale=en
Unicorn is an open platform for facilitating collaboration between universities, organizations and industry, in the Latin American context for the solution to challenges through the cogeneration of knowledge with added value and high capacity to influence the environment. It was used as a complement for the participating processes of challenge definition. During the process the Local Interest Group was encouraged to use the platform to validate the challenges, especially those people who couldn't attend the face-to-face workshops.

Website of the project

Link: https://en.covadongaurbanlab.cat/
Specific website of the project for the dissemination of the process and the results. It contains information about the project, the Local Interest Group (with the participant stakeholders), the Academic Group (with the participant HEIs), an interactive map and a blog with the activities and news about the project.

Publication - Short version / Long version

One of the outputs is an Agreement, that has been distributed openly in the form of a publication. Its aim is to disseminate to the citizenship, stakeholders and city council the specific projects for the neighbourhood to provide evidence of an agreement on how should evolve the district and the priority on the actions.
There is a short version, more summarised; and a long version, that apart from the short contents includes several articles written by the participant professors, invited stakeholders and external experts, and also a text explaining the methodology followed during the process.

Excel (One Drive by Microsoft)

In order to keep the Local Interest Group informed and updated of the whole process, the data processing of the challenges and the canvas was developed using Excel. Periodically, a

version of the file was sent to the Local Interest Group to review, validate and edit (if necessary) online the information.

Email of the project *pr.covadonga.urban.lab@uab.cat*:
It was the communication tool used to organise the events and manage the project together with the participating groups, but also was the principal channel of communication for the updating and validation of the process development, making sure that all the people interested received the information (although they couldn't attend all the face-to-face workshops). During the project we used a distribution email list of approximately 140 local/regional email contacts.

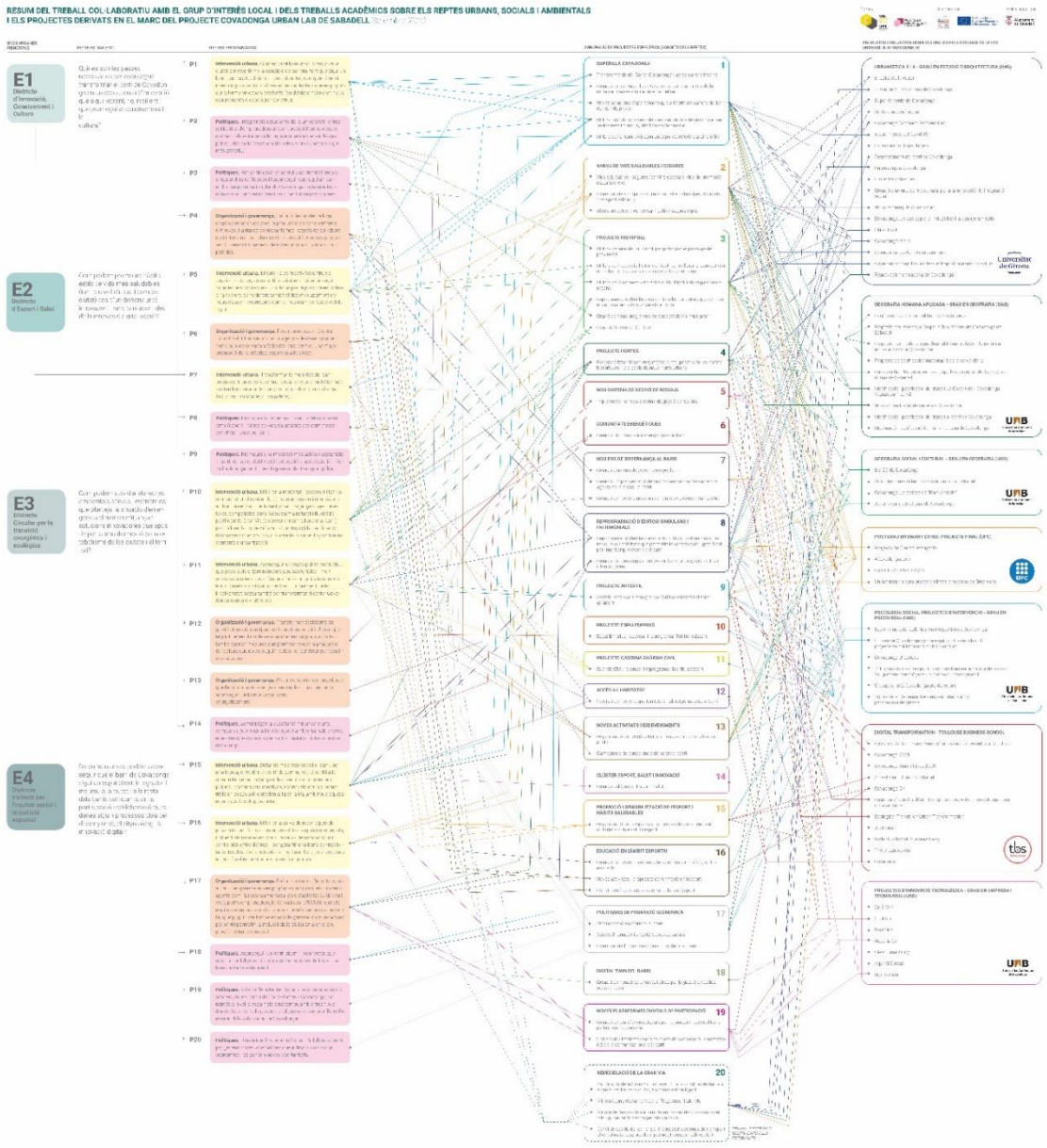
Outputs & Impact

Outputs

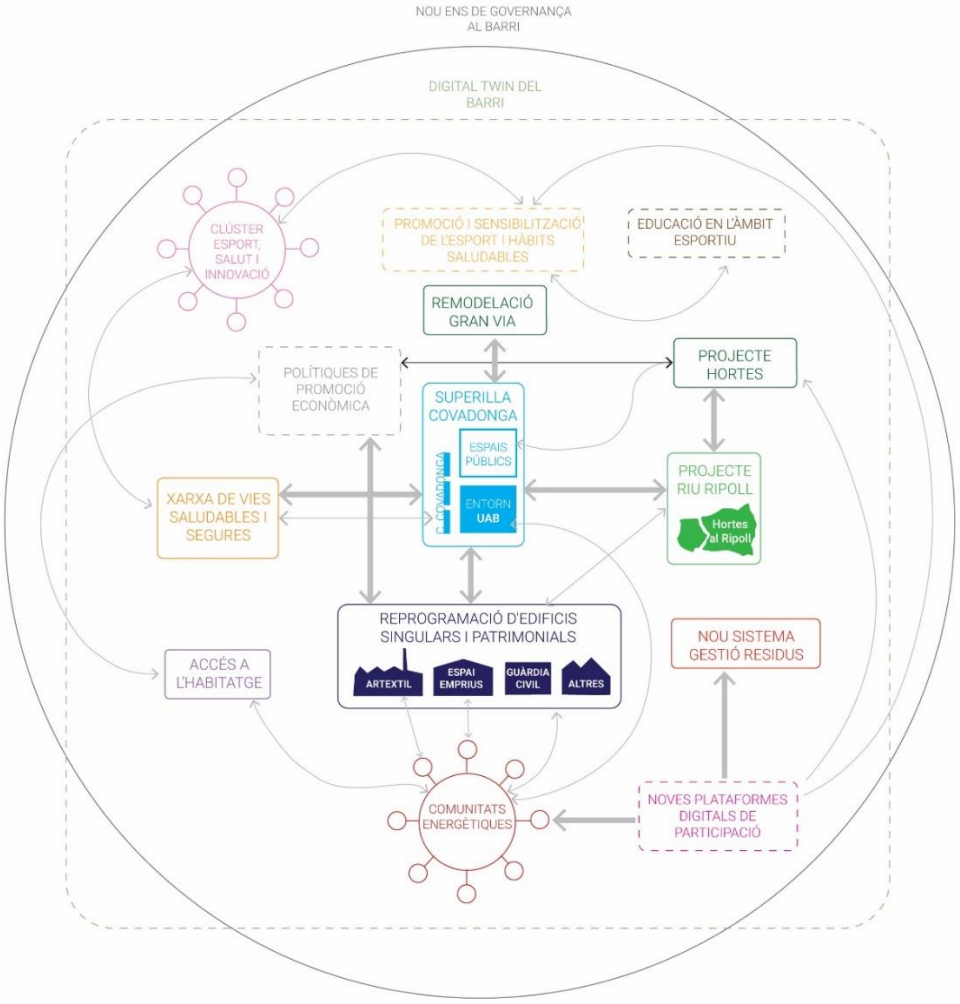
Solutions produced:

During the participatory process and the afterwards data processing, 20 specific projects were defined as priority for development. The interest in the students' proposals is that usually, the same proposal include more than one of these projects, so the focus of the solutions produced were wide and transversal. Finally, 60 different proposals tackling the 4 challenged proposed were developed by the students. For more detail of the relation between the 20 projects, the 60 proposals and the challenges, see the scheme below and the project´s website where they can be consulted.

Following the methodology of scaling the challenges, the 20 specific projects also kept this scalar feature. In this sense, some of them have a wide and cross-sector scope (like for example, "A new governance body in the district", "Economic promotion policies" or a "Digital twin of the district"), since they may affect and connect different areas and may have a wider impact; whereas others are quite more specific (like for example "Energy communities" which would apply in one specific location, "Covadonga Superblock" or "Reprogramming singular and heritage buildings" like Artèxtil or Espai Emprius).



Scheme of the relation between strategic and programmatic challenges addressed, the 20 specific projects and the 60 HEIs' proposals that include, in some way, these projects. In the Annex there is the image in more resolution.



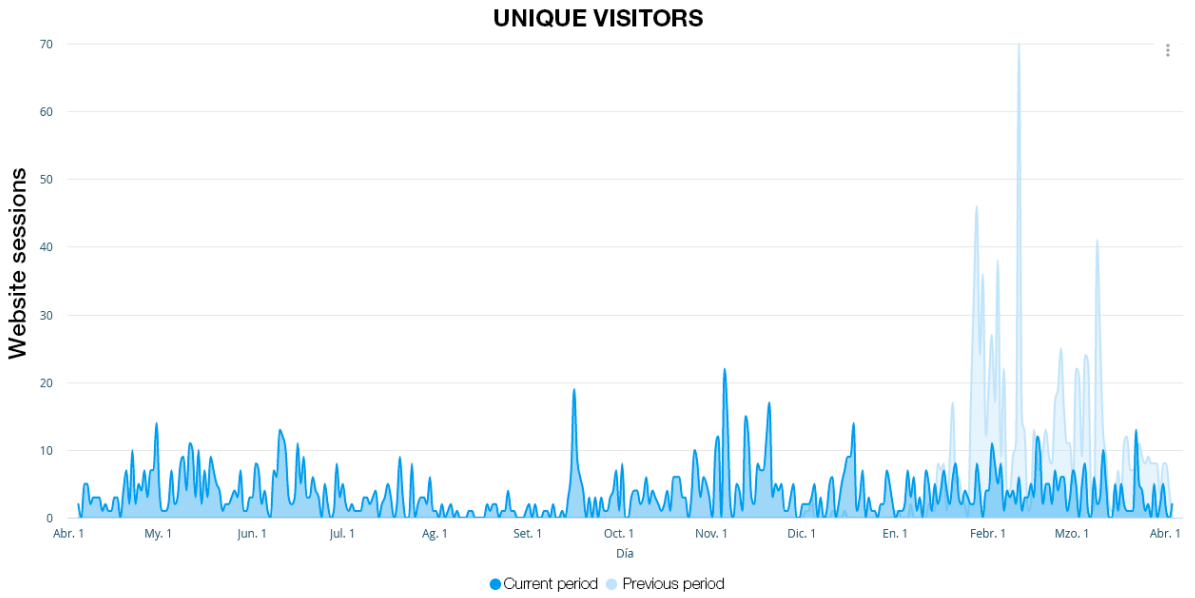
Scheme of the relation between the 20 specific projects

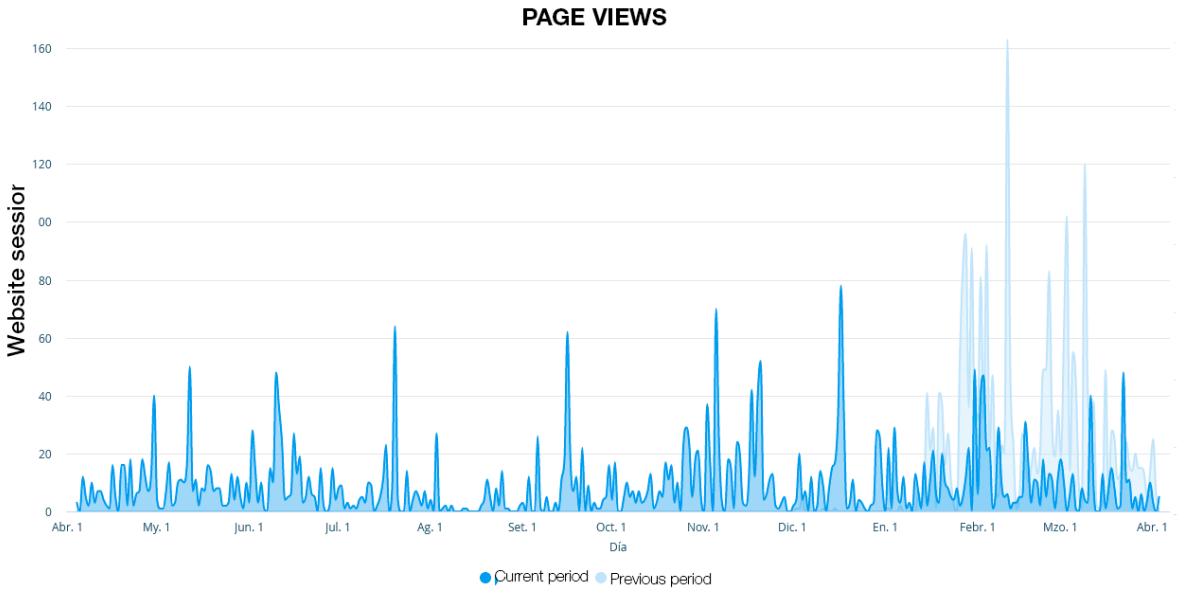
As said in previous sections, the solutions produced respond to Urban interventions, Organisation and Governance and Policies, being the first category the most common.

All these solutions are being summarised and disseminated through the **"Agreement. Towards an innovative, inclusive, healthy and sustainable Covadonga for the year 2030"**. This document has been published as a dissemination publication in two versions: short, with only the proposals; and long, including also the methodology and opinion articles.

Website interaction:

The webpage has worked as the principal dissemination tool (apart from direct emailing) where the outputs and agenda could be found. The new publications in the website were also previously announced by email, so the interactions were higher in the moments of new content publication. For detail, see the graphics below:





Website statistics for the period 1st April 2020 to 1st April 2021

Feedback received about the programme:

During the process, the conversations maintained with the local stakeholders, especially the most engage with the socioeconomic and urban transformation of the area, demonstrated a growing interest on this initiative and the embracing attitude towards the project. The Local Interest Group was open and committed to work with the students, and gratefully received their proposals.

Regarding the academic feedback, generally it was a positive experience for the students, because in most cases they could discover a challenge-based methodology, a way to tackle a context reality different than the one they are more used to work with. Also, it was much appreciated the opportunity to work with people, knowing that the identified needs were real and that they had specific ideas from which start the proposals, avoiding the generation of a specific analysis in each case.
Nevertheless, there were some inputs to review:

- The COVID context complicated the evolution of the process as planned. On the one hand, it was positive to have specific demands based on the urban needs; but on the other hand, the impossibility of making field visits during the lock-down make the work much more difficult.
- The rigid timings of the courses that have to follow the curricula rules are different from the ones in these participatory processes. Although there was the intention as much as it was possible to adapt the timings, instead of a one-semester course, a whole year course would have allowed other opportunities between the different students' groups like working interdisciplinary between different courses, having more opportunities to work together with the local stakeholders in common sessions, or organise more field visits.
- See feedback letter/article from Covadonga Neighbour Association

Impact

The Covadonga Urban Lab has had a huge positive impact within the municipality and the neighbourhood and surrounding areas. It is an area which remains in the expectation of urban renovation and economic reactivation. The fact of promoting a project like this, with the participation of the stakeholders, the engagement of the University (UAB) as project promoter and the engagement of students has meant an open door for this neighbourhood regeneration and evolution. This is demonstrated by the high implication and numbers of interested stakeholders, but also of students that have seen this framework as an opportunity to work on a real context with real demands and problematics in the form of challenges (a new way of facing the course demands mostly for all courses).

For the students, working with challenge-based methodology has provided new tools and ways to analyse the real context more resolute, providing a more direct and linked relation between the analysis-diagnose and the solutions proposed. And the fact that these challenges were

defined by a diverse group of stakeholders (with representation of the four sectors of the quadruple helix) has provided the students a wider and more complex analysis of the urban reality making visible the multisector needs of a territory.

The other important aspect to highlight is the possibility to finally be involved in the resolution of real projects and the possibility to participate in a real initiative beyond the academic context. The Covadonga urban Lab will continue to function in order to impulse as many as possible of the solutions proposed, through subsequent collaborative schemes and processes that will take place during 2021 and 2022 outside the UCITYLAB framework

The local press has also followed the process and contributed to its dissemination and has been a key communication ally throughout the development of the lab.

List of published articles related to the pilot project Covadonga Urban Lab:

- Local newspaper: https://www.diaridesabadell.com/tema/covadonga-urban-lab/
- Local radio: https://radiosabadell.fm/noticia/covadonga-urban-lab-un-projecte-pilot-europeu-treballar-millores-socials-i-estructurals-al
- Local TV: https://www.youtube.com/watch?v=GHee3CIP4sc

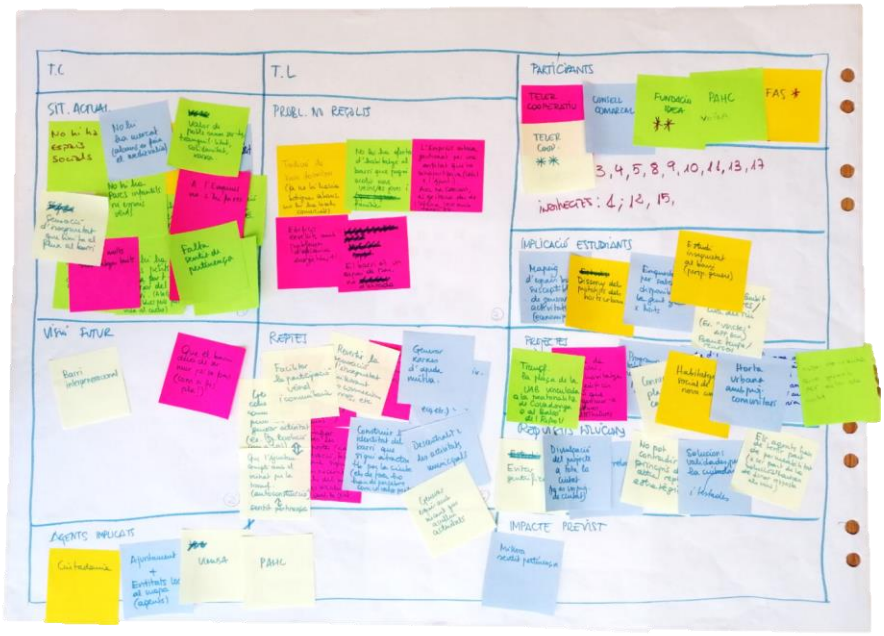
Visuals

Logo of the project:

Homepage of the project's website

Website www.covadongaurbanlab.cat

Challenge definition working on canvas and maps:



Example of completed canvas by one of the working groups

Collective discussion about the canvas results during previous session with the Local Interest Group (January 2020)

Project presentation to the stakeholders during the previous session with the Local Interest Group (January 2020)

Collective discussion about the academic implications of the programme and the Teaching Toolkit during the previous session with the Academic Group (January 2020)

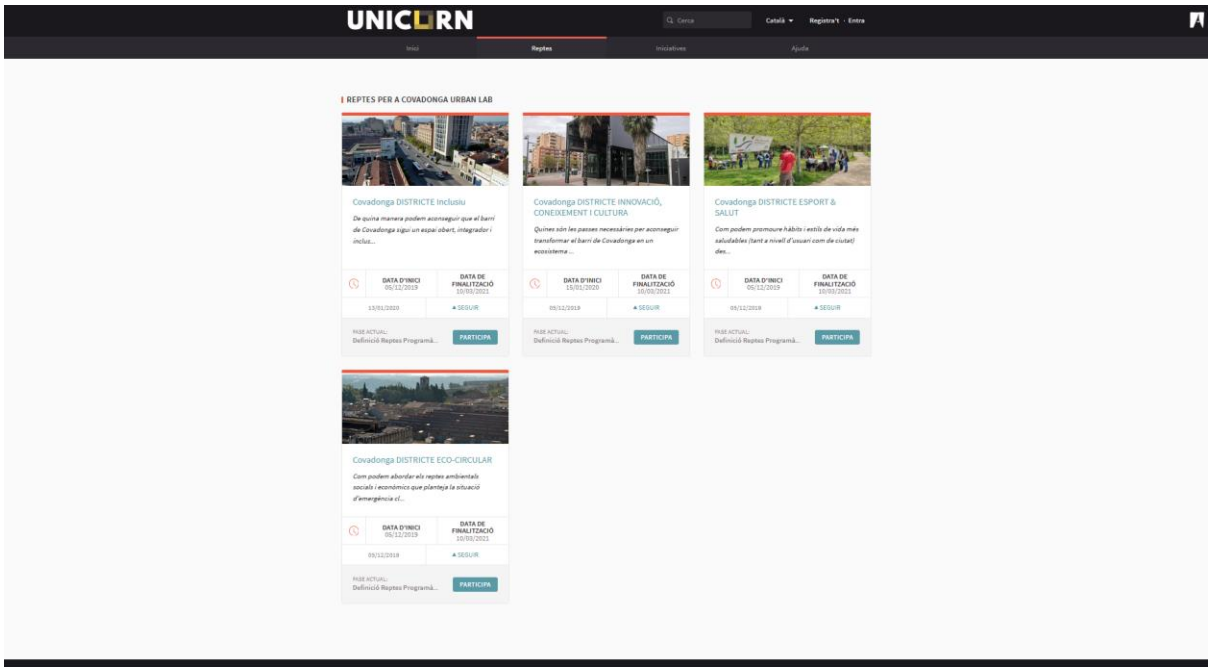
Official project's presentation during the kick-off session (February 2020)

Working groups during the kick-off session (February 2020)

A working group on the challenge number 4 (Inclusive District), during the kick-off session (February 2020)

Prioritisation of the Programmatic Challenges during the Kick-off (February 2020)

Working groups on programmatic challenges, specific projects and maps between HEIs students and the Local Interest Group (March 2020)



Digital Depository of the processes on the Unicorn Website

Dissemination poster of the kick-off event on January 2020

Dissemination poster of the working session event on February 2020

Dissemination poster of the working session event on March 2020

Institut Mines-Télécom Business School

GENERAL

Short summary

Three challenges were undertaken in partnership with different stakeholders:

1. Évry Courcouronnes Municipality – undertaken by entrepreneurship students in the final year of their degree, the aim was to develop solutions to make the city of Évry Courcouronnes more appealing not only for foreigners in order to attract them, but also for the current residents.
2. Essonne Développement – undertaken by international business students in the second year of their degree, this was an initiative to explore the global situation of co-working and the possibility of implementing co-working solutions in the region of Essonne, in order to innovate the ways people work in the area.
3. Gentrepreneur & Ghent City Council – a mix of students from France and Australia met in a neutral location, Ghent in Belgium, and working together with a local agency they developed the museum of the future. The initiative had the goal of making museums more attractive to everyone, but especially to students, who usually see museums as the "plan B" or boring places.

In total, these projects included:

- more than 150 students both from France and Australia working together to develop solutions to urban problems
- more than 10 mentors involved
- 10+ workshops and seminars
- More than 300 possible solutions identified
- 32 solutions presented

Background

Institut Mines-Télécom Business School (IMTBS) is one of 13 graduate schools in the Institut Mines-Télécom, one of France's major educational and research establishments. In addition to IMTBS, the Institute groups many of the country's key engineering schools and plays a central role in developing both ground-breaking and applied research, innovation and education for engineers, managers, specialists and faculty. The schools of the Institute are acknowledged for their excellence at both national and international levels. Institut Mines-Telecom is a both a major actor in the French research landscape and in European research programs, accounting for 192 research contracts in FP7, for example. The Institute combines strong academic legitimacy, close corporate relations and a unique focus on four key transformative fields of the 21st century: Digital Technologies, Energy, Ecology and Production.

IMTBS is the business school of the Institut Mines-Telecom. A public business school, it operates under the auspices of the French Ministry for the Economy, Industry and Finance. For over thirty years, it has been recognised for its dual expertise in management and in information

and communication technologies (ICT). The school has 1,500 full-time students in bachelors, masters and doctoral programs, and additional part-time students in its continuing-education programs and Executive MBA. IMTBS shares a campus, and certain non-academic administrative services with a telecom engineering school, Telecom Sud Paris. Both support an on-campus small-business incubator from which, over the past ten years, 100 companies have emerged to employ over 1,000 people. IMTBS has over 100 university partners worldwide and has been accredited by AACSB and by AMBA. The school's main Grande Ecole program was 60th in the global ranking of International Masters Programs compiled by The Financial Times for 2018. IMTBS sits within the Évry-Courcouronnes council, the Essonne Region and the Grand Paris Sud urban area.

Grand Paris Sud Seine-Essonne-Senart is an urban area located in the southern part of the Île-de-France region, located 30 km from Paris. It consists of 23 communities, and it is the 5th most-populated area of the Ile de France region, and demographically one of the most important regions. Grand Paris Sud is rich in natural spaces (around 11,494 hectares), its urban planning combines modernity and cultural heritage, and tows are surrounded with countryside spaces and large urban complexes. The area is still developing its housing potential with 3,500 resedential places in construction, and 425 hectares of available real estate. Its economy has experienced growth, and its future is prosperous. Grand Paris Sud has 22,000 companies registered, 138,000 job positions, and 62 business parks, as well as 14 HEI centers and many other research centers. Its ecosystem for innovation counts five world-recognized centers in the field of biotechnologies, aeronautics, eco-business, e-commerce, digital industry and healthcare. Its cultural life is equally rich, and citizens have an opportunity to attend all kinds of event in three theatres, 130 concert halls, 21 libraries and media resource centers. Beside culture, Grand Paris Sud is becoming a bridge point for different cultures where 165 different nationalities have found their homes.

Challenge project 1

Nature of program

As part of their (Entre-)Internship, commencing at the end of October and running for three weeks, student teams in the third year of the Grand Ecole program worked 2.5 days a week for three weeks to solve a relevant urban challenge.

The challenge was to address the issue of improving the perception, knowledge of key city assets, and branding of Évry-Courcouronnes city using a design thinking approach which included: Immersions, Scan Cards, Problem Definitions, Insights, Interviews and Ideation.

22 Program Grand Ecole students from the SEED Entrepreneurship program were involved, and the activities undertaken consisted of 3 workshops to explore the problem and develop solutions, alongside 10 days of working independently. Additionally, the students attended guest lectures offered by Adeline Leroy (Startup coach – Operating Partner at I&S Adviser) and Mathieu Forrest (Digitalisation – Senior Manager at The Hackett Group) amongst others.

Features:

- Entrepreneurship students worked in teams, acting as consultants
- The City (City of Évry-Courcouronnes) was the client
- The current and future residents of Évry-Courcouronnes are the beneficiary/user
- Utilization of the European (UCityLab) challenge-project framework
- Supported by workshops, seminars and mentors

Types of activity	Lectures, workshops, webinars, events, hackathon, field visits
Formality	Curricula-bound
Level of initiative	Grand Ecole degree (specific French educational track), final year

Length

This Urban Challenge was run over three weeks: from the 28th of October to 15th of November 2019.

Motivations and Objectives

The aim was to reimagine the city of Évry-Courcouronnes, to bring it to life and make it a more attractive proposition for potential residents, but also for the current residents. Another objective was to connect with the educational assets that already exist in Évry, the university, the business school, etc., and to make it more student friendly.

Working together with the project partner, the general objectives for the project were to make recommendations to the city of Évry-Courcouronnes about how they can better promote the city to local residents and other stakeholders in order to:

- Increase pride, satisfaction, knowledge and cultural feeling of local residents about their city
- To improve the brand of the city and make it a more attractive location
- To potentially create a brand for Évry to appeal to a wider population

Stakeholders

The program's partner organisations, their locations and their role

This challenge was developed by the Institut Mines-Télécom Business School in partnership with the Évry-Courcouronnes Municipality in the framework of the UCityLab project.

Located in the municipality of Île-de-France, the City of Évry is located about twenty-five kilometers from Paris, in the department of Essonne. Populated by more than 53,000 inhabitants, the city, located not far from Etampes, Corbeil-Essonnes or Milly-la-Forêt, experienced strong urbanization beginning in the 19th century, thus benefiting from a major economic boom, and strong industrialization. Located on the left bank of the Seine, Évry is one of the greenest cities in France with numerous green spaces and other parks which reduce the strong impact of the construction that dots the Paris region. Very well served by public transport, Évry is an ideal point for discovering the beauties of the Île-de-France, and more particularly of the capital, Paris. Dynamic and full of events, the city of Évry has a very interesting cultural and sporting offer with festivals, sporting events and various events of all kinds. Mostly built in the last thirty years, Évry still has some beautiful monuments that recall previous centuries scattered throughout the city. Residential areas and large housing estates have been erected on either side of the A6 motorway and the population is exploding, from 4,300 inhabitants in 1975 to more than 13,000 today, a figure that has remained stable since the beginning from the 2000s. Évry is a centre for a wide range of business services. It has a university and a large central retailing and leisure complex. Various industrial estates and office parks were developed as an integral part of the new town. Industries include food processing, printing, and the manufacture of machinery and electronics. Research-based activities have also been established in Évry, particularly in the fields of biotechnology and space.

Process

Program inputs

- *22 Post Graduate Education students* (5th year Grand Ecole program) - from the SEED Entrepreneurship program (a one-year Majeur).
- *4 top-level presenters* - namely:
    - Adeline Leroy: Operating Partner at I&S Adviser and serial entrepreneur. Responsible for the creation of 5 companies in 3 years. She has also been a mentor for incubator and accelerator for a year and has been involved in engineering schools and university for a decade.
    - Dr Victoria Galan-Muros: Research Director at the Global Institute on Innovation Districts (GIID), Director of Policy Affairs at the University-Industry Innovation Network (UIIN) and Co-Founder of the Innovative Futures Institute (IFI).

    - Mathieu Forrest: Senior Manager at The Hackett Group. He formerly worked with Accenture and IBM Global Services as well as at PwC Consulting.
    - Dr Todd Davey: Associate Professor of Entrepreneurship at the Institut Mines Télécom-Business School in France and also a visiting researcher at Imperial College (UK), Technical University of Vienna (AUT) and the University of Adelaide (AUS) in the topics of entrepreneurship and innovation.
- *IMT Starter Incubator* – a shared incubator of the Évry Campus of Telecom Sud Paris and IMTBS, which housed some of the activities and development.
- *Finances* - from the UCityLab project were used to bring in external lecturers to support the students
- *The design thinking methodology* – provided the methodology for the innovation component of the Urban Challenge
- *The UCityLab Teaching Toolkit* – the Teaching Toolkit underpinned the methodology for the teaching of an Urban Challenge including the process, pedagogies and frameworks for course delivery
- *Other materials* - such as flip charts, whiteboards, markets, materials for making prototypes

Program activities

Number of challenges addressed

One overarching challenge was addressed – that of improving the perception, knowledge of key city assets and branding of Évry-Courcouronnes city.

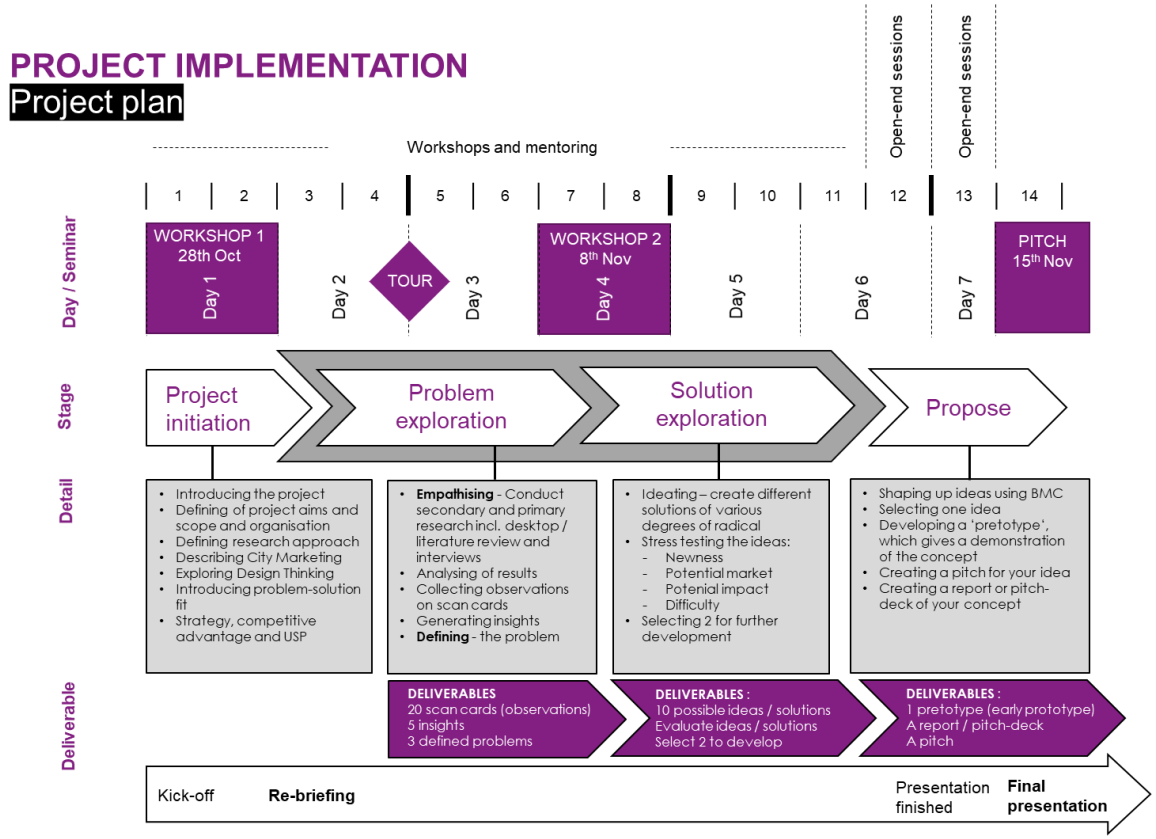
The student groups of 2 to 4 entrepreneurs self-selected the following themes to explore:

- City architecture / Évry Village
- Parkour
- Street art / Cultural assets
- City park design
- Student City Évry

The specific aims of the project included:

- To understand and describe the region (Évry and Ville Nouvelle) and its strengths and weaknesses through desktop research / interviews
- To identify global best practice for city and regional promotion / activities
- To identify the major assets of the city Évry-Courcouronnes and state their potential for promotion / activities
- To propose a number of options for the promotion and/or activities to promote the city
- To create a pretotype of a favoured option

The program was delivered as follows:



The major elements of the program included:

1. Kick-off meeting: Monday 28th October (EC present) ROOM: A01
   WP1: DISCOVER – *Problem identification* – 28th , 29th October
   TOUR OF THE CITY - Thursday, October 31st from 3pm - 4:30pm
   WP2: EXPLORE – *Problem solving* – 7th, 8th November

2. Meeting: Friday, 8th November (EC potentially present) ROOM: A02
   WP3: PROPOSE – *Presentation/pretotype* – 13th, 14th, 15th Nov.

3. Final presentation: Friday 15th November, final presentation (EC present)

Activities related to program/challenges

- A kick-off event, which invited members and employees of the Évry-Coucouronnes City council to the school to meet and interact with students whilst also providing a foundation of understanding about the city for students
- 3 workshops exploring the problem and developing solutions
- Guest lectures by Adeline Leroy and Mathieu Forrest
- Pitching of ideas to Council members at the Town Hall
- Course assessments

Platforms used

Trello, a web-based, Kanban-style, list-making application, which allows for project teams to work independently on their own project, whilst also allowing the course director to oversee the progress of student teams in a coordinated and efficient manner.

Outputs & Impact

Outputs

- 1 final presentation at Évry-Courcouronnes municipality by SEED Students
- 16 concepts were presented at the Town Hall to Council members, with all ideas given at least 7/10 by the Council
- 2 ideas have been followed up by the municipality to engage the students in further work on the idea
- 1 concept was taken forward by one of the founder teams as a topic for developing into a new entrepreneurial venture
- 4 different course assessments including a reflection document and feedback from the municipality and Todd Davey

Impact

Some of the impact for respective stakeholders included:

- Students benefitted from:
    - developing concepts that they could take forward as potential new entrepreneurial opportunities and providing a new topic understanding or expertise that might provide future employment or project opportunities
    - challenge-based learning helped to improve student skills to solve practical problems supported by a recognised methodology
    - working in teams supported the teamwork and leadership skills of students
    - working on a 'live' project provided students with practical and real-life situations that enabled them to apply their theoretical knowledge into useful activities for positive outcomes
    - presenting a number of times including a 'pressure' situation at the city council which aides their ability to work under pressure and their specific communication and presentation skills
    - having practical outcomes and experiences, which increases their employability
- the Client (Évry-Courcouronnes municipality) benefitted from:
    - new perspectives and insights about their city assets, which (i) directly improves their ability to communicate the benefits of their city to present and future residents, (ii) provides insights into how the city assets can be better utilised for the benefit of all
    - the presentation of ideas to public representatives, with 2 of those ideas being followed up by the municipality to engage the students in further work on the area for direct application in their city
- the School (IMTBS) benefitted from the experience by:

    - providing opportunities for teachers to support student learning through new pedagogies and thus increasing academic knowledge about the practical world
    - providing opportunities for improving student skills and employability
    - improving the reputation of the school in the city
- Subsequent impacts expected include: An increase in civic pride of residents, an increase in the attraction to live and work in the city, and to develop a more heterogeneous population

Visuals

Pilot implementation

Students' presentations

Challenge project 2

Nature of program

As part of the International Business Strategy course, commencing at the end of October and running for two months, student teams in the second year of the Grand Ecole program worked until mid-December to solve a relevant urban challenge.

The project aimed to explore the question "What is the development potential for co-working in Essonne?", which involved an investigation of the potential for mobility, co-working and digital transformation resulting in a need for co-working.

3 workshops were hosted by Todd Davey and Balzhan Orazbayeva, a Social Innovation expert from Germany, exploring the topic using a social research approach which included immersions, scan cards, videos, a State of the Market report, interviews and case studies that led to a final presentation and report.

Features:

- International business students worked in teams, acting as consultants
- The Region of Essonne (Essonne Développement) was the client
- The current and future residents of Essonne are the beneficiary/user
- Utilisation of the European (UCityLab) challenge-project framework
- Supported by workshops, seminars and mentors

Types of activity	Lectures, workshops, webinars, events, hackathon, field visits
Formality	Curricula-bound
Level of initiative	Grand Ecole degree (specific French educational track), final year

Length

The program took place over approximately 2 months from the 23rd of October until the 16th of December.

Motivations and Objectives

Essonne Développement (agency responsible for the region of Essonne) was interested in developing a deeper understanding of the need for co-working and the ability to develop this within the region as a means to make Essonne a more attractive region in which to live. They additionally wanted to attract businesses to their region who would host workers from larger companies (with head offices elsewhere) in the region.

Therefore, the Challenge Project aims were to explore the question: What is the development potential for co-working in Essonne? This involved an investigation of the potential for mobility, co-working, and digital transformation resulting in a need for co-working and then making recommendations about how the region could approach co-working and the opportunities that

existed. The challenge required both French native speakers to engage with local stakeholders as well as English-speaking students to be able to access the latest insights from a global perspective.

Stakeholders

This challenge was developed by the Institut Mines-Télécom Business School in partnership with Essonne Développement in the framework of the UCityLab project.

The partner of the challenge was **Essonne Développement**. Essonne Développement is Essonne's territorial development agency. According to their website, for more than 25 years, Essonne Développement has been a local player working for the economic influence and attractiveness of Essonne within the Île-de-France Region. It acts in close partnership with the region, the department, and inter-municipal and Essonne companies. It works as a territorial innovation accelerator and is involved in several projects, having among its partners both institutional and educational entities, namely: The Department of Essonne, Paris Region, CCI Essonne, Île-de-France, Télécom SudParis, ENSIIE, Genopole, Medicen, Systematic, ASTech, and more.

Process

Program inputs

- *102 International Business Students* - (4th year Post Graduate Education), involved in addressing the challenge of "The Future of Co-Working and What this Means for the Essonne Region". This was a complex mix of French native speaking students and also international students with strong English-speaking capability but lower French language competencies.
- 4 presenters and mentors - namely:
    - Dr Victoria Galan-Muros: Research Director at the Global Institute on Innovation Districts (GIID), Director of Policy Affairs at the University-Industry Innovation Network (UIIN) and Co-Founder of the Innovative Futures Institute (IFI).
    - Dr Todd Davey: Associate Professor of Entrepreneurship at the Institut Mines Télécom-Business School in France and also a visiting researcher at Imperial College (UK), Technical University of Vienna (AUT) and the University of Adelaide (AUS) in the topics of entrepreneurship and innovation.
    - Dr Balzhan Orazbayeva: Manager Strategic Initiatives at UIIN, Senior researcher Science-to-Business Marketing Research Centre.
    - Adisa Ejubovic: Researcher, Science-to-Business Marketing Research Centre.
- *Campus* – lecture rooms and resources from the Évry Campus of Telecom Sud Paris and IMTBS enabling live seminars, workshops, activities and development.
- *Finances* - from the UCityLab project were used to bring in external lecturers / mentors to support the students

- *The design thinking methodology* – provided the methodology for the innovation component of the Urban Challenge
- *The UCityLab Teaching Toolkit* – the Teaching Toolkit underpinned the methodology for the teaching of an Urban Challenge including the process, pedagogies and frameworks for course delivery
- *Other materials* - such as flip charts, whiteboards, markets, materials for making prototypes

Program activities

One **overarching challenge** was addressed: How can the Essonne region better utilise opportunities from co-working and what is the development potential for co-working in Essonne?

10 different **sub-challenges** resulted from this primary question, which was developed by students and then resulted in a presentation that was made to a representative from Essonne Développement.

25 **teams** of 4-5 students were formed: (I) French native speaking students and (II) International teams with English competencies. French-speaking students were allocated objectives and activities whose method was locally focussed including the conducting of expert and stakeholder interviews, whilst international student teams were allocated desk research activities, international expert interviews, and the development of case studies which required greater English speaking skills.

Students were provided with **seminars** related to:

- Business strategy
- Problem solving and design thinking
- Social innovation and agile methods
- Presentation skills

The **methodology** for the challenge involved three elements:

1. *Desktop research* to determine the growth pattern of co-working, including: Global trends in co-working, the drivers of co-working, the French labour market and localised development of co-working spaces.
2. *Collection of case studies*. Each student researched a city/region to get a better understanding of the situation in the country in terms of co-working.
3. *Company Interviews*, both with large companies located outside Essone and startups/SMEs based in Essone.

The program combined practise, theory and mentoring to support the teams through two main phases of the design thinking process:

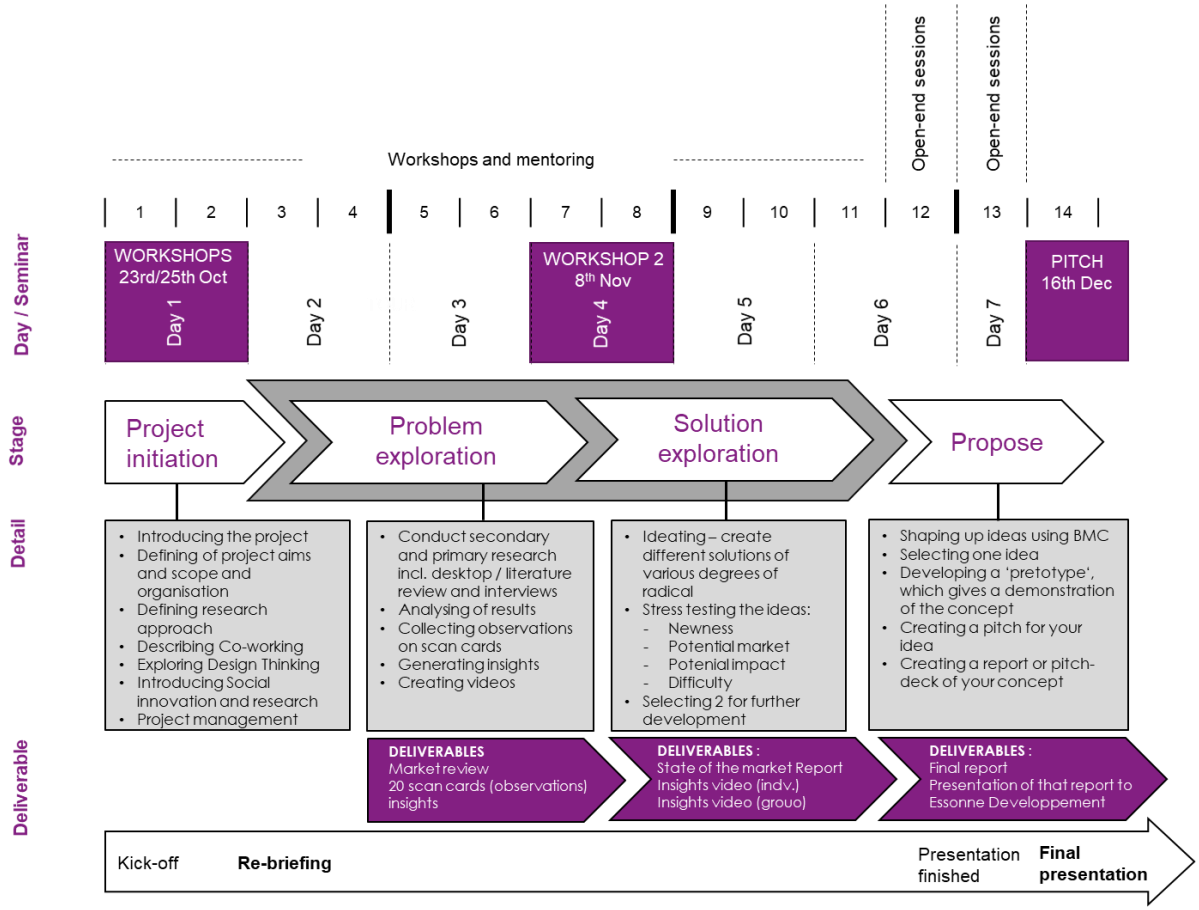
1. *Problem identification* – an intense phase of understanding, investigating and articulating the problem

2. *Problem solving* – once the problem is clear, teams identified a number of possible 'solutions' with a focus on describing in detail 1-2 of these options

The program timelines included:

Wed, 23 October	Urban Challenge kick-off and project definition. Business strategy seminar
Fri, 25 October	Problem solving and design thinking
Fri, 25 October	Social innovation and agile methods
Fri, 8 November	Project milestone 1 review (Individual teams analysing their findings by reviewing each other's video summaries)
Fri, 29 November	Project milestone 2 review (Mixed teams exchanging thoughts on their project and bringing together findings into 'meta group' presentations)
Tues, 3 December	International business focus seminar
Fri, 6 December	Project milestone 3 review
Mon, 16 December	Presentation

Note: 2 sessions and the final presentation were delivered online (due to local French transport strikes), including a student interactive session where they exchanged ideas through videos and discussion groups.



Platforms used: Trello, a web-based, Kanban-style, list-making application, which allows for project teams to work independently on their own project, whilst also allowing the course director to oversee the progress of student teams in a coordinated and efficient manner.

Outputs & Impact

Outputs

The outputs of the project included:

- 1 final presentation to representatives from Essonne Développement (delivered online due to local French transport strikes)
- 10 presentations made to a representative from Essonne Développement on 16.12.2019;
- 100 personal insight videos and 24 written reports delivered to Essonne Développement on 18.12.2019

The direct outputs included:

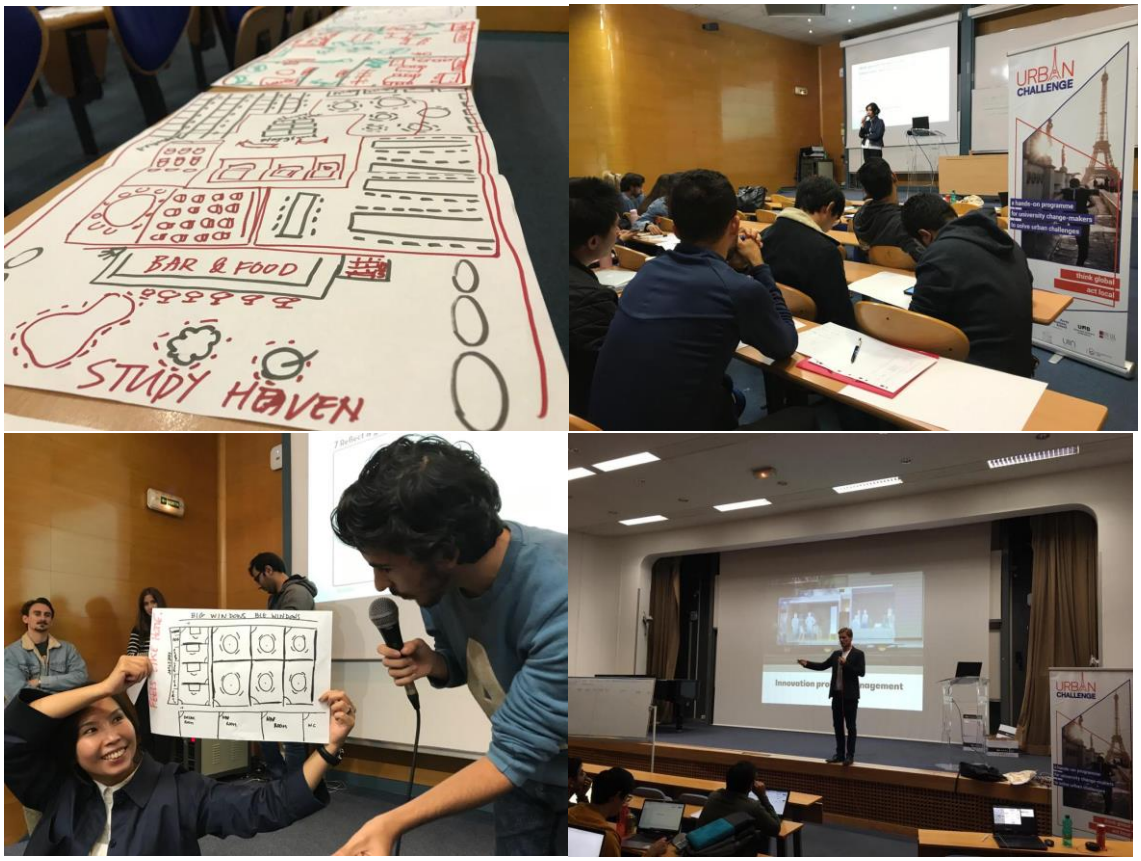
- 10 presentations made by 'meta groups' summarising the findings from two teams was made to representatives from Essonne Développement
- 100 personal insight videos were shared
- 24 written reports were delivered
- 20 scan cards were documented

Impact

- Students benefitted from:
    - developing concepts that they could take forward as a new topic understanding or expertise that might provide future employment or project opportunities: an extensive and accurate understanding of the situation of co-working, especially in the region of Essonne
    - challenge-based learning helped to improve student skills to solve practical problems supported by a recognised methodology
    - working in teams supported the teamwork and leadership skills of students
    - working on a 'live' project provided students with practical and real-life situations that enabled them to apply their theoretical knowledge into useful activities for positive outcomes
    - presenting a number of times including a 'pressure' situation at Essonne Développement which aides their ability to work under pressure and their specific communication and presentation skills
    - having practical outcomes and experiences, which increases their employability
- the Client (Essonne Développement) benefitted from:
    - new perspectives and insights about co-working opportunities, which (i) directly improves their ability to communicate the opportunities for co-working to professionals living in the region, (ii) demonstrates how businesses could

potentially be attractive to the region, and (iii) provides insights into co-working and how the city can better utilise it for the benefit of all
    - the presentation of ideas to public representatives with multiple insights and those ideas being followed up by the region for direct application in their region
- the School (IMTBS) benefitted from the experience by:
    - providing opportunities for teachers to support student learning through new pedagogies and thus increasing academic knowledge about the practical world
    - providing opportunities for improving student skills and employability
    - improving the reputation of the school in the Essone area

Visuals



Working session

Challenge project 3

Nature of program

The program brought together students from France and Australia with the aim to develop the museum of the future. As part of their (Entre-)Internship, the French IMTBS student teams in the third year of the Grand Ecole program made an excursion to view the Ghent entrepreneurial ecosystem for 2 days and to solve a relevant urban challenge.

As part of a specific extra-curricula program offered to bachelor students at the University of Adelaide in Australia, students were given the opportunity to undertake a 2 week trip to Europe taking in one week of entrepreneurial experiences and one week working in teams in a competition called eChallenge against other international teams. One of their stops was in Ghent to observe the local entrepreneurship ecosystem.

The primary question to be addressed was "How can we make museums more interactive and connected to student life?".

Features:

- Entrepreneurship students worked in teams, acting as consultants
- The City (City of Ghent) was the client
- The current and future residents of Ghent are the beneficiary/user
- Utilisation of the European (UCityLab) challenge-project framework
- Supported by a workshop, seminars, field visit and mentors

Types of activity	Workshop, seminars, field visit and mentors
Formality	Extra-curricula
Level of initiative	Grand Ecole degree (specific French educational track), final year; Bachelor-level Australian University student

Length

18 hours were dedicated from the first presentation until the final pitch by students.

Motivations and Objectives

The aim was to reimagine the museum to bring it a new life and to make it more relevant for today's youth, as well as to make it a more attractive proposition for Ghent residents. Another objective was to utilise the museum assets that already exist in Ghent, connect it with the university, and make it more student friendly.

Working together with the project partner, the general objectives for the project were to make recommendations to the City of Ghent about how they can better position regional museums in order to:

- To increase numbers of visitors to local museums

- To engage students in the city's cultural assets
- Increase pride, satisfaction, knowledge and cultural feeling of local residents about
- To improve the brand of the city and make it a more attractive location

Stakeholders

This challenge was developed by the Institut Mines-Télécom Business School and the University of Adelaide in partnership with the Gentrepreneur and the Ghent City Council in the framework of the UCityLab project.

The various phases of Ghent's urban development read like a textbook on urban history. Emerging as a political and religious centre at the confluence of two rivers, Ghent developed from the end of the eighteenth century on into an important centre of the textile industry. Its independent attitude ensured that the city developed well into the nineteenth century within the straitjacket of military ramparts, where both trade, industry and academe found fertile soil. After the city toll was lifted, the city boomed, while the seaport went through a new wave of industrialization in the mid-twentieth century. First the CIAM doctrine and later on the postmodernist approach has clearly left its traces on the urban fabric. Today, urban policy is received critically by civil society organisations, while on-going debates focus on the balance between tourism and habitation, on the architecture of the central squares, on bicycle facilities and tram lines, on the poor housing conditions in the nineteenth-century neighbourhoods, on the lack of greenery in the city, and on the development of peripheral retail outlets.

Gentrepreneur is a student cooperative company founded by Gentrepreneur, Arteveldehogeschool, HOGENT and Ghent University. Students of these three funding institutions can become a member of Gentrepreneur, buy one share in the amount of 250 euros, and when ready they can start selling their products to the market. In initial stages, the company provides financial, administrative, and other support to students before they proceed to market. Once student shareholders can stand on their own feet, they are expected to exit Gentrepreneur. Six major benefits that Grentrepreneur offers to students are:

1. Lower administrative costs
2. Tax-free business for a periodin which the student is a shareholder in the company
3. Risk-free business, as students invest only 250 euros and get support until they make progress
4. Coaching and entrepreneurial trainings
5. Community or active network of student entrepreneurs
6. Ability to become independent entrepreneur or to stay student-entrepreneur.

Process

Program inputs

- In total, *16 French and 14 Australian students* were given a one day challenge by Gentrepreneur representatives. They worked in mixed teams of 4-5 students per team.
- Local presenters and mentors from the Ghent ecosystem were utilised including:

    - A presentation from the Ghent City council
    - A presentation from Gentrepreneur about their activities
    - A presentation of the Urban Challenge
    - A presentation and demonstration by a student entrepreneur
- *Ghent City Council location* – a prime council building was made available for both the presentations and then the final pitches by students
- *City of Ghent* – students visited the city to gain insights and ideas for the challenge and used the restaurants and bars as co-working spaces for their concepts
- *Finances* - from the UCityLab project were used to fund the excursion for French students. Australian students were covered by their own tuition funding.
- *The design thinking methodology* – provided the methodology for the innovation component of the Urban Challenge
- *The UCityLab Teaching Toolkit* – the Teaching Toolkit underpinned the methodology for the teaching of an Urban Challenge including the process, pedagogies and frameworks for course delivery
- *Other materials* - such as flip charts, whiteboards, markets, materials for making prototypes

Program activities

Number of challenges addressed: 2 challenges:

- Primary focus: How can we make museums more interactive and connected to student life?
- Sub-focus: How to get entrepreneurs networks working better?

Activities related to program/challenges

- 3 presentations providing background, context and motivation
- 6 final presentations from mixed teams of students
- City exploration afternoon

Students were provided with a link where they could access online material prepared to inform their task.

Outputs & Impact

Outputs

Number, type, and scope of solutions produced.

- 6 presentations from mixed teams of students
- 2 ideas identified by Gentrepreneur for further development

Impact

- Students benefitted from:
    - developing concepts that they could take forward as potential new entrepreneurial opportunities and providing a new topic understanding or expertise that might provide future employment or project opportunities
    - challenge-based learning helped to improve student skills to solve practical problems supported by a recognised methodology
    - working in teams supported the teamwork and leadership skills of students
    - working on a 'live' project provided students with practical and real-life situations that enabled them to apply their theoretical knowledge into useful activities for positive outcomes
    - presenting a number of times including a 'pressure' situation at the city council which aides their ability to work under pressure and their specific communication and presentation skills
    - having practical outcomes and experiences, which increases their employability
- the Client (Ghent City Council) benefitted from:
    - new perspectives and insights about their cultural assets, which were provided to the City Council, that (i) directly improves their ability to promote and engage their museums with students as well as present and future residents, (ii) provides insights into how the museums can better engage with their community
    - the presentation of ideas to public representatives, with 2 of those ideas being followed up by the council to engage the students in further work on the area for direct application in their city
- the School (IMTBS) benefitted from the experience by:
    - providing opportunities for teachers to support student learning through new pedagogies and thus increasing academic knowledge about the practical world
    - providing opportunities for improving student skills and employability
    - improving the reputation of the school in the city
- Subsequent impacts were expected include: Increase civic pride of residents, an increase in the attraction to live and work in the city and to develop a more heterogeneous population

Visuals

Student's presentation

COMPARISON TOOL

This part of the report aims to create a common visual to compare the 4 programmes. In order to make this process clearer and simpler, the analysis will be only based on the first Challenge Project for all partners.

First, characteristics to be included in the comparison tool were selected. It is important to mention that there are no wrong answers or better approaches, this tool is just a visual way of comparing programs that are so different, notwithstanding the fact that common points exist. With this is mind, the tool is not an evaluation, but a visual representation of the programs based on 5 characteristics/parameters.

The first parameter is the number of challenges addressed, according to which the program can be classified as uni-approach or multi-approach. This choice is very important when designing a program because when students are producing solutions to the same problem, they are competing with each other and they know - *a priori* - that there will be a selection between projects. When each team is focusing on a specific challenge the competition is lower, but the requirement level is higher since their solution must cover all the topics, as it will not be completed by other ideas.

Secondly, partners chose the process of challenge identification, which can be internal or external. Evidently, internal stakeholders are always involved in the process of identifying urban challenges, so the question here is whether external parties are, or not, also involved.

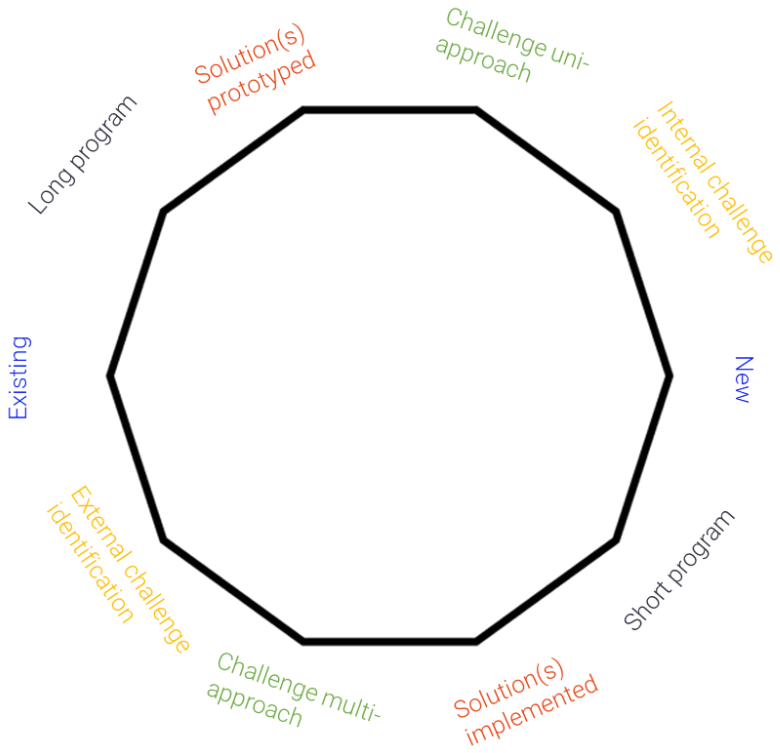
The third characteristic is the duration of the program, as partners believe this is something important. In fact, when designing a challenge program there is no obligation for it to be one-semester long. It will depend on organisational strategies and operations, and on what fits the organiser institution the best. For the purposes of this report, we have considered short programs as the ones that have a length lower than 6 months and long ones as the ones above this threshold.

The fourth factor is the solutions proposed by students and whether they were implemented (even if partially) or prototyped.

Finally, the last parameter taken into consideration regards the participants – whether these are existing students or new ones. This is linked to the promotion of the course and the criteria selection. In fact, if the challenge program is directed at existing students, the dissemination is done internally through internal means. In this case, there is no applying process, and the selection criteria are optional, depending on the needs based on the number of enrolments. When there is an open call, so students outside the HEI can apply, there is a need for an application and motivation letter, as well as selection criteria. Additionally, promotional measures are taken in social media and website to reach a broader target.

Considering these 5 categories, we chose a 10 vertices figure to represent all the parameters in a binary logic.

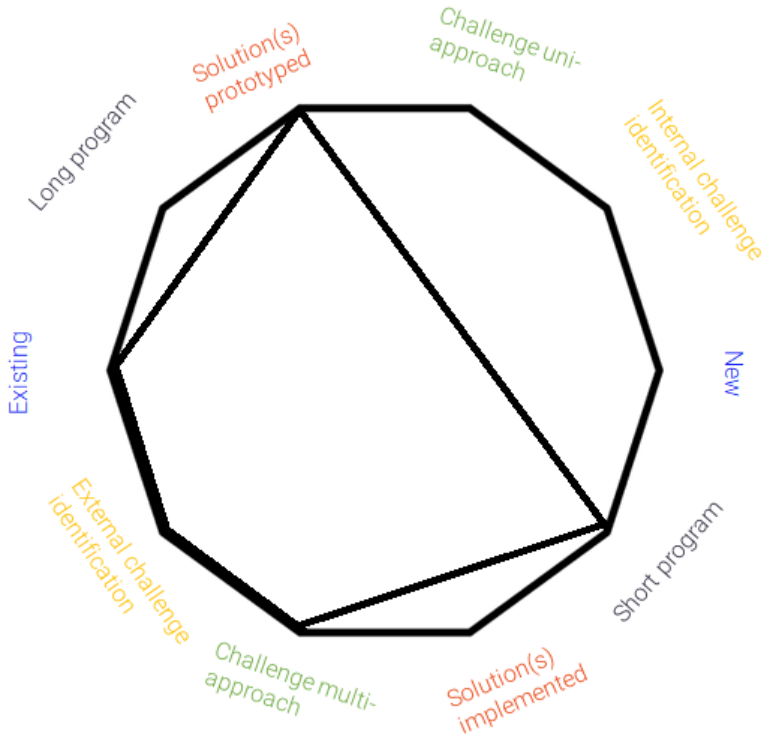
By joining the vertices, a geometric shape appears, so the visual is reached.



Characteristics selected:

- Number of challenges
- Challenges identification
- Programme duration
- Solution implemented vs prototyped
- Profiling of students

Porto Business School



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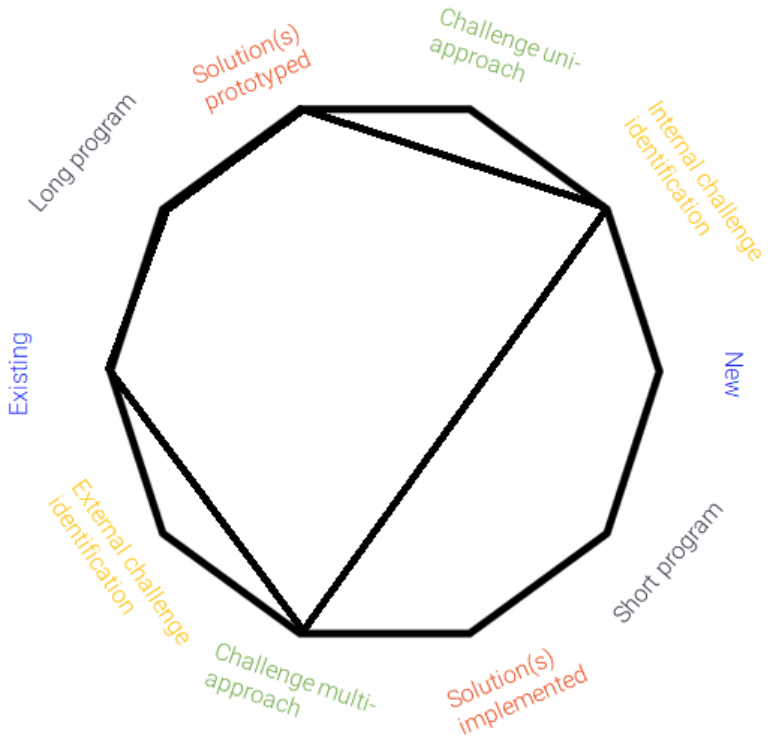

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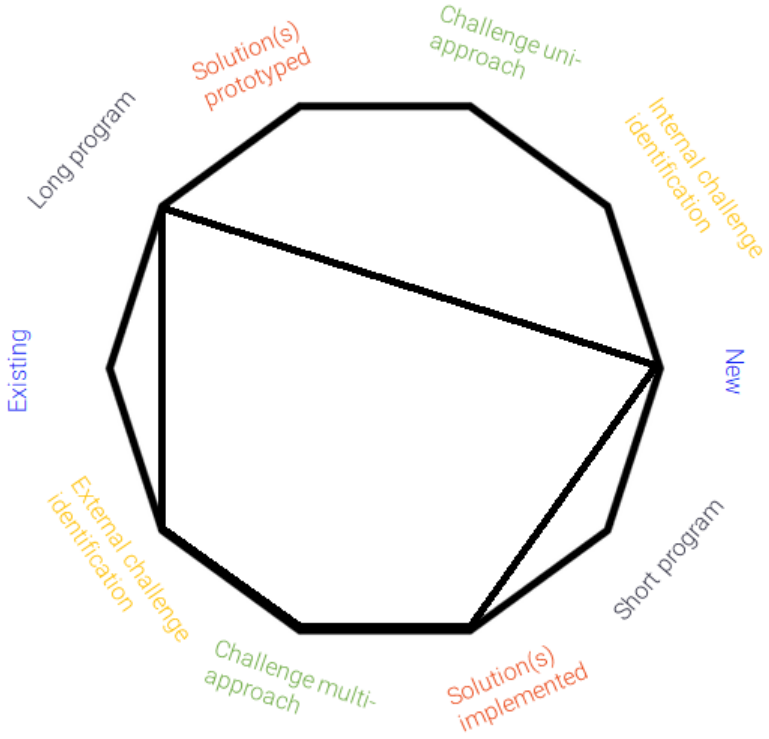

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