Spain

Good Practice Case Study

UAB Open Labs

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PROJECT PARTNERS

GENERAL INFORMATION

Title of the case	UAB OPEN LABS
Sales pitch	Come to fabricate your ideas!
Organisations	• Generalitat de Catalunya (Regional Government) • Universitat Autonoma de Barcelona (UAB)
Country	Spain
Authors	• Konstantinos Kourkoutas • Angela Serrano
Nature of interaction	Academic, Research, Students, Libraries; Open Innovation

Level of mechanism

☑ Government policy (e.g. law, funding framework)

☑ Organisational strategy (e.g. university/business/agency)

☑ Structural element (e.g. centre, lab, office)

☐ Operational level (e.g. activity or programme)

Length of programme

Not specified	Formality	Informal

Curricula-bound, co or extra-curricular?

Co-curricula	Level of initiative	Cross-disciplinary, institution-wide

Summary

The UAB has the will to make its campus a space for experimentation, innovation and demonstration for new technologies and methodologies, both for the research community and for its productive and social environment. Starting in 2014, the UAB enacted the creation of thematic communities around thematic challenges (Smart & sustainable cities, Mental Health, Education and employability, Cultural Heritage) that did significant work in trying to articulate internal multidisciplinary communities and also connections with the territory and local agents. The UAB has also been participating in the network of European Living Labs since 2015 with its Smart Campus Living Lab, and thus came into contact with all of the new methodologies and technologies that were affecting innovation process. The UAB wanted to transfer this knowledge throughout the campus. Therefore, it enabled a network of co-creation spaces that will serve as the driving force for social and digital innovation within the campus and the territory, promoting collaboration and further articulation of the communities.

CASE STUDY PROFILE

BACKGROUND

CORES

Under the RISCAT instrument called Communities, the creation of thematic partnerships was proposed in order to meet the regional socio-economic demands and challenges in specific sectors. In order for the UAB to respond to these challenges and effectively articulate its own capacities, the *Strategic Research Communities (CORE)* were launched starting in 2013. The CORE networks were established based on a strategic challenge identified at international, European and territorial levels, and in which, the UAB-CEI had a sufficient critical mass of research groups that covered the entire chain of value for each area. In this sense, the UAB has defined four COREs so far: Smart & Sustainable Cities, Cultural Heritage, Mental Health and Education & Occupability. These act in the quadruple helix frame of territorial organization: academic field, productive sector, government sector and civil society. The main motivation behind these communities was the fact that they could collectively identify real societal challenges (along each of their themes), and be able to provide solutions and alternative co-created paths.

The potential of Living Labs as research tools have been of interest for the UAB since 2014 when the university actively joined the European Network of Living Labs (ENoLL) participating with its Smart Campus Living Lab, providing further exposure to the wide variety of application and experiences initiated on a European and International level. This exposure fortified the initial faith that living labs could provide the adequate platforms for setting up local ecosystems of innovation around thematic axes and for implementing the strategic vision of the university with respect to its territorial vision and Responsible Research and Innovation (RRI) policies. After having the COREs in function for 3-4 years, the conclusion was reached that a new type of space was needed that could provide the communities with a physical lab to interact, ideate and co-create and prototype their early stage projects. Therefore, accelerating innovation processes within.

CONTEXT

2014

- UAB joins the European Network of Living Labs with its Smart Campus Living Lab

2017

- Preparation FEDER proposal. Call within the 2014-2020 Operational Program. Projects for the valorization and knowledge transfer of the Catalan universities. Introduce the concept of OPEN LABS as an instrument for innovation and knowledge transfer.

2018

- Feb-Mar: Co-creation / definition process (140+ participants)
- Apr-June: Steering groups / secondary definition

2019

- Dec – Aug: Construction phase
- Sept-Oct: Expected Inauguration

The context of the case study includes:

- The UAB community comprises of almost 50,000 users (35,000 of them students) and it spans a wide range of ages, backgrounds and specialties. Any member of the community could be a potential user of the OPEN LABS, thus the potential pool of users is characterized by a wealth of diversity and capacities.
- On an organizational level, the UAB already counts with the creation of 4 thematic strategic communities (eg. CORE: https://www.uab.cat/web/research/cores-uab/core-in-smart-sustainable-cities/sphere-uab-cei-centres-1345698259430.html) that have already done significant work engaging the members of the community along key societal challenges. At the same time, on the Environmental level, there was already the existing concept of the UAB Sphere: (https://www.uab.cat/web/about-the-uab/uab-cie-sphere/uab-cie-sphere-surroundings-1345667138446.html) understood as the

immediate sphere of influence of the university, including collaborating research and technology centers, industries, administrations and other universities. This concept later transformed into the brand of the HubB30: "an alliance to promote the innovation in the B30 highway area" (http://www.hubb30.cat/en) with the intention to further articulate the local ecosystem and consolidate it into a key innovation pole.

OBJECTIVES AND MOTIVATIONS

The Open Labs were conceived as the operational instruments of the Campus Living Lab. The UAB OPEN LABS spaces will be configured as a new transfer instrument for the valorization of products, the maturation of technologies and experimentation activities that allow evaluating the potential of the generated and potentially transferable technology of the University's research, of collaborative research and of the investigation of the productive agents. They will be open and accessible spaces in which researchers, users and companies will collaborate through the use of digital technologies to co-create knowledge and solutions that respond to real societal needs.

STAKEHOLDERS

Generalitat de Catalunya (Regional Government)

- CATLABS – Catalan network of Open Innovation Labs sponsored by Generalitat de Catalunya

Universitat Autonoma de Barcelona

- Research Strategic Development Unit
- UAB Libraries
- Urbanism, Architecture and Logistics Unit
- Engineering School
- IT Services
- Researchers
- Students

PROCESS

INPUT

Human

- Co-creation process

  As far as the definition of the model for the labs, a co-creation process was realized over various months, involving Students, Professors, Researchers, Personal, Technicians, & External persons, with a total of over 140 participants.

- COREs

  The communities organized around the COREs will provide the labs with concrete challenges, qualified personnel, student participation, and the further engagement of the quadruple helix.

Financial

- FEDER project "FEDER UAB: an innovative and entrepreneurial ecosystem"– provides the financial support for the realization of the labs
- Fundació la Caixa – provides financial support for the acquisition of the Labs equipment.

Physical

- Spaces – 2 physical spaces on the UAB campus; a Digital Humanities Lab within the Humanities Library and a Digital Manufacturing and Prototyping Lab in the Engineering School
- Virtual – Ecology and Territory Laboratory, in conjunction with the Barcelona Institute for Regional and Metropolitan Studies (IERMB) and the Centre for Forest Studies (CREAF)

ACTIVITIES

- Undergraduate, Master & PhD final projects: provide the students with all the necessary instruments for them to be able to materialize and test their ideas
- Challenged-Based Courses/Programmes: organized Ideation and Prototyping programmes around challenges set by societal or industry agents
- Formation Courses: provide formation for students, researchers and personnel of the community in areas related to Digital Social Innovation
- Open Prototyping Call: set up and organize an annual/semester call for ideas to be financed, prototyped in the Open Labs and tested in the Campus Living Lab
- Lectures: organize periodic lectures of different themes with local and international experts
- Demonstrations: provide spaces for the testing and demonstration of solutions produced in the labs, and offer a demo space where the most innovative ideas could be displayed

☑ OUTCOMES AND IMPACT

OUTPUTS

Prototypes: production of prototypes and testing/demonstration of their capabilities

Services: offer services to the community not offered through traditional university services (collaborative spaces and facilitators, advanced manufacturing, digitalization services)

Methodologies: promote innovative design methodologies and ways of doing things. Systematize and organize this knowledge so it can be shared and replicated

Community: end up creating more coherent and resilient collaborative research and innovation communities, articulated around concrete projects and outputs, but also a trustful and collaborative spirit.

IMPACTS

Individual: encourage collaborative work among researchers of different groups, as well as departments and faculties, cross-germinating knowledge and innovation potential. Through this work, encourage the acquisition of Transverse Capacities/soft skill and find a way to certify them

Organizational: given that the project is still in an early stage, there is no information available, but there is a system of Impact Indicators set in place to measure the nature and intensity of activity once open and functioning

Community: on this level, the expected and desirable impact would be the articulation of a local ecosystem around open innovation labs in the territory with a capacity to accelerate innovation processes, especially the one in early TRL/SRL phases.

SUPPORTING ENVIRONMENT & SYSTEM

SUPPORTING MECHANISMS

- "FEDER UAB: an innovative and entrepreneurial ecosystem"
- UAB Smart Campus Living Lab
- UAB Strategic 2030 Plan
- UAB Libraries Strategic Document
- CATLABS
- New internal regulation for the recognition of the UAB Labs

BARRIERS AND DRIVERS

Barriers:

- Administrative barriers/financing barriers: the public university funding the last decade has suffered a significant decrease that could be seen in the investment in infrastructures and personnel. Furthermore, the modus-operandi of most researchers was adapted to vertical silos (inside research groups, or individual projects) that did not encourage or reward collaboration, and had few or no aspects of openness.

Drivers

- Emerging Collaborative paradigms: the emerging digital social innovation paradigms that asked for a renewed way of doing things, utilizing the technological advancements and the possibilities that they opened up

- Societal Push: at the same time, the emergence of diverse spaces/labs of open innovation (living labs, gab labs, urban labs) in the metropolitan area (and on an international level) dictated that the university had to adopt to this new paradigm and offer to its community similar instruments and opportunities with the ultimate objective of maximizing its territorial and societal impact as a whole.

💼 LESSONS LEARNED

CHALLENGES

- User engagement/Community dynamization: one of the main objectives of the OPEN LABS is to promote user engagement and interaction first, among the CORE communities, as well as the rest of the university community and provide them with spaces to conceptualize and materialize their ideas.
- Territorial Articulation: another objective is the connection and interrelation with other labs in the territory through specific projects and activities and the articulation of a territorial network of labs.
- Open access/accessibility: the OPEN LABS, as their name denotes, pretend to maintain an openness of all aspects: open to a wide typology of users, open to new technologies and methodologies, use of open hardware and software, documentation and open sharing of results
- Open, Innovative and Collaborative Environment: create a space where different actors can meet and interact in a comfortable and trustful environment that promotes innovation, prototyping, testing and production of knowledge in a collaborative manner.

KEY SUCCESS FACTORS

- Adequate dynamization of spaces and community
- Maintain technological edge
- Engage the quadruple helix
- Accelerate innovation processes

🖥 FURTHER INFORMATION

AWARDS AND RECOGNITION

NA

TRANSFERABILITY

- Campus wide
- Catlabs – Catalan level
- Enoll – international level

LINKS

https://www.uab.cat/web/investigar/cores-uab/les-cores-uab/els-uab-open-labs-1345742539391.html

https://www.uab.cat/open-labs/

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