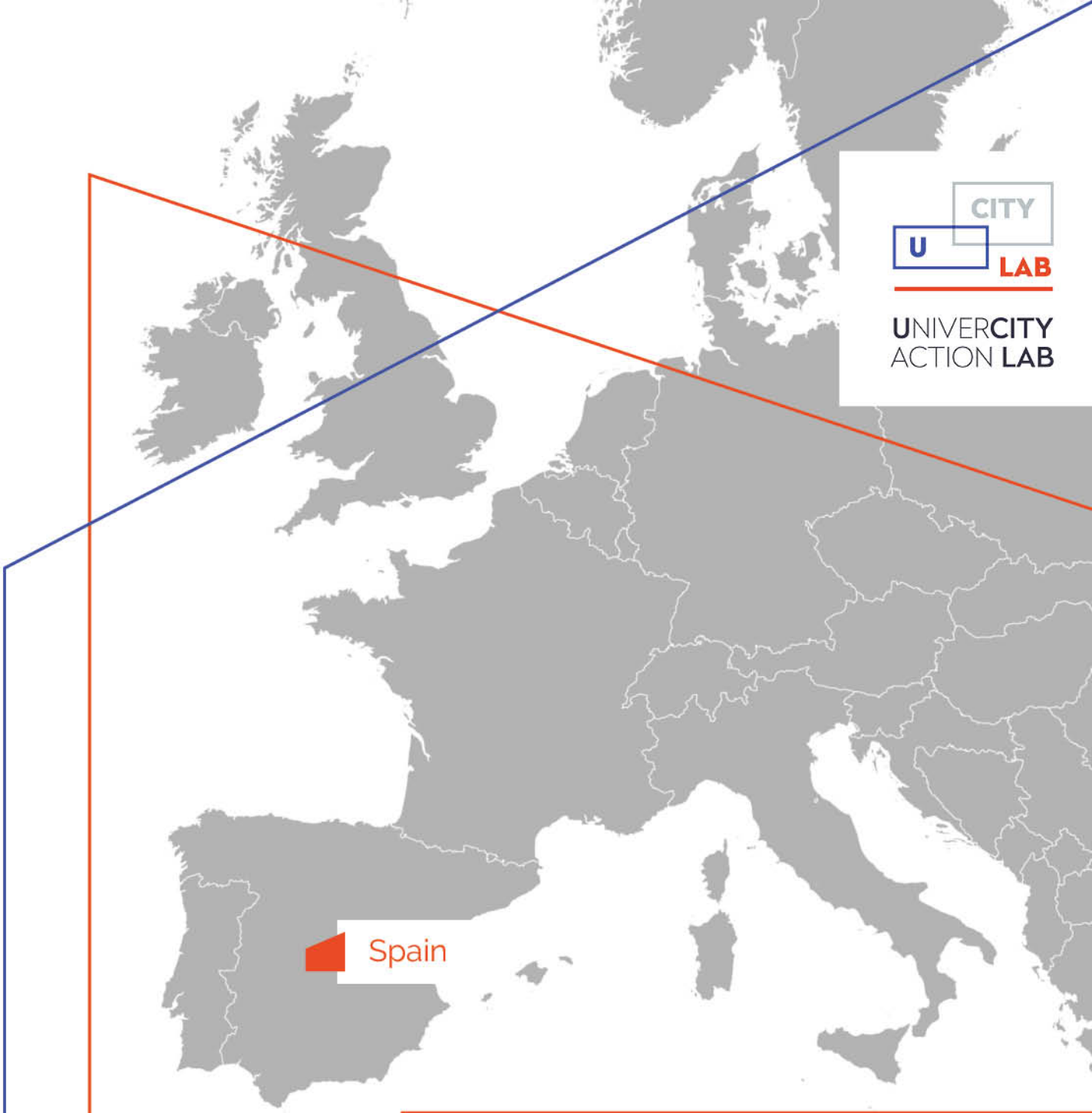

UNIVERCITY ACTION LAB

Good Practice Case Study

AI4ALL

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Co-funded by the Erasmus+ Programme of the European Union

PROJECT PARTNERS

GENERAL INFORMATION

Title of the case	AI4ALL: Artificial Intelligence Applied to Industry (http://www.ai4all.cat/)
Sales pitch	Bringing together AI, business, and entrepreneurship to promote innovation and economic growth.
Organisations	• Parc de Recerca UAB (PRUAB) • Escola Enginyeria UAB i Centre Visió per Computador (CVC) • UAB Research Park • UAB Engineering School and Computer Vision Center
Country	Spain
Authors	• Xavier Osorio • Daniel Franco • Antonio Espinosa • Meritxell Bassoles
Nature of interaction	Program to promote specialized territorial entrepreneurship
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	Formal

Curricula-bound, co or extra-curricular?	Curricula	Level of initiative	Cross-disciplinary

Summary

The disruptive breakthrough of artificial intelligence (AI) has arrived to become a channel of economic progress in multiple sectors in the next decades.

That is why the UAB, the PRUAB and the CVC, thanks to the joint capacity in leading technology and entrepreneurship, have considered it suitable to focus the program on facilitating the creation of new market ideas in this environment. Thus, helping to promote the country's competitiveness so that it is put on the map in this new digital revolution.

The AI4ALL program is divided into 3 axes: the technical training axis, the entrepreneurial training axis, and a part of an experimental laboratory. The program aims to test and evolve business ideas into prototypes, using agile methodologies and a hands-on concept, in order to make the program appealing and allow for the most experimentation possible.

CASE STUDY PROFILE

BACKGROUND

The disruptive breakthrough of artificial intelligence (AI) will become a channel of economic progress in multiple sectors in the next decades.

Currently, we are immersed in a new revolution that foresees the creation of new business opportunities. By 2025, it is expected that the revenues derived from AI activity will increase to $36,820 M.

In the domestic sphere, you can think about Amazon Alexa, Apple Siri or Google Home virtual assistants. It is about new smart products that are capable of controlling home appliances and responding to orders, as well as checking the weather, consulting newspapers, booking a taxi and much more.

One of the first sectors where AI has grown most has been in the automobile industry, with Tesla as a pioneer in the development of the future autonomous vehicle through predictive models based on AI.

Countries like Canada or France are already defining the new economic growth tool based on AI. In the same way, Catalonia is a great generator of knowledge in this field. This has caused companies like Amazon or Mitek to choose Barcelona to focus their research centres on AI.

CONTEXT

University Autonoma of Barcelona is one of the great generators of all this talent. Proof of this is the current research contracts with international companies such as Audi, Intel or Toyota, as well as at the national level with Ficosa and Idneo, and with the successful start-ups emerging from the campus, such as ICAR Vision, HealthApp, Serimag, VisualTagging, Vintra, Davantis.

The conjunction of the technological and entrepreneurial capacity of the UAB community, promoted by the PRUAB, gave rise to this idea-generation program; a precedent that allowed the creation of the first impulse program in 2017, which generated new business models around sustainable mobility in 2017. This program had the objective of approaching the technologies of AI in the field of the connected and autonomous vehicle to generate new market ideas.

Thanks to the success of this former program and the impulse of AI at the market level, UAB considers it suitable to focus the program on facilitating the creation of new market ideas in this environment. Thus, helping to promote the country's competitiveness so that it puts it on the map of this new digital revolution.

OBJECTIVES AND MOTIVATIONS

The programme was conceived and realized with the financial support of the Catalan entrepreneurial service "Catalunya Empren" after an open call for applications for innovative formation courses.

2016 – 1st Line B Catalunya Call and Application for the "COURSE IN INTELIGENT VEHICLE AND BUSINESS OPPORTUNITIES"

2016 - 1st Announcement Line B "Catalunya Empren" Resolution. Marks obtained 81/100 points.

2017 - Execution of the program "COURSE IN INTELIGENT VEHICLE AND BUSINESS OPPORTUNITIES"

2017 - 2nd Announcement Line B "Catalunya Empren" and Application for the "ARTIFICIAL INTELLIGENCE APPLIED TO THE INDUSTRY"

2017 - 1st Announcement Line B "Catalunya Empren" Resolution. Marks obtained 91/100 points.

2018 - Execution of the "ARTIFICIAL INTELLIGENCE APPLIED TO INDUSTRY" program

The powerful UAB Research, Higher Education and Technology transfer Ecosystem is very suitable to Entrepreneurship:

- UAB Sphere (https://www.uab.cat/web/about-the-uab/uab-cie-sphere/uab-cie-sphere-surroundings-1345667138446.html) https://www.uab.cat/web/research/cores-uab/core-in-smart-sustainable-cities/sphere-uab-cei-centres-1345698259430.html)
- UAB Entrepreneurship Program (https://www.uab.cat/web/research/itineraries/innovation-knowledge-transfer-business/uab-empren-programme-1345667277687.html)

STAKEHOLDERS

- Students: Program participants (open to all disciplines / master and phD level, non-students with adequate qualifications)
- Academics: Program Trainers / Teachers
- Businesses: Program Trainers
- City or regional government: Promoter of the "Catalonia Empren" Line B grant

PROCESS

INPUT

- Students as conduits of knowledge and skill. (20 participants - students / professionals)
- Researchers as providers of scientific knowledge. As program trainers and tutors (22 professors of different backgrounds)
- Companies and academic world contributing with their experience to the program. (4 companies, 2 clusters)
- Course coordinators: creating, executing and following-up the program
- Finance: realized with the support of the Catalan entrepreneurial Service "Catalunya Empren" covering all operational costs and tuitions for the participants

ACTIVITIES

The work plan was divided into 3 axes: the technical training axis, the entrepreneurial training axis and a part of an experimental laboratory. The first axis provided the participants with the necessary updated technological and technical knowledge to be able to tackle the challenges. The second axis aimed at the development of the participants´ soft skills and team working capacity. The last axis focused on developing the ideas proposed to tackle the challenges presented. These three axes contributed to testing and evolving business ideas into prototypes.

Financial: Grant from "Catalonia Empren" Primer Program (Line B).

Physical: Program developed in person at the School of Engineering of the UAB and the UAB Research Park, having three sessions per week over 4 months.

Education: Training sessions classified into two types: technological (AI) and business.

Valorisation: Four entrepreneurial projects were created during the course, covering all of the technological and entrepreneurial areas of the program to achieve a business plan and a functional prototype.

OUTCOMES AND IMPACT

OUTPUTS

Creation and execution of the AI4ALL Training program by the entities involved.

Twenty people trained in AI technology and Business and Entrepreneurship

Creation of 4 entrepreneurial projects (Air4In, Iauctoritas, Udecision, SmartMesure). Completion of a business plan for each project, consisting of a one-page summary and a functional prototype.

Udecision completed the company constitution phase and currently the project is incubated at the UAB Research Park with the support of the UAB Engineering School and the CVC.

IMPACTS

One of the most significant impacts of the project was the collaborative effort between different departments, faculties and services of the university, as well as actors of the immediate territory. This collaboration served to create relations and articulate connections with other actors working in the thematics of the two editions and thus, set the basis for future collaborations towards the general direction of consolidating a vibrant innovation ecosystem in the area. The challenge-based nature of the program also helped the challenge-setters to receive feedback, and even possibly a solution. It also gave the participants the opportunity to take part in an innovative formation programme and work on real challenges, while undergoing an entrepreneurial process to compete for the possibility to win a prize and form a new start-up company.

SUPPORTING ENVIRONMENT & SYSTEM

SUPPORTING MECHANISMS

- Entrepreneurship governmental policies supporting entrepreneur programs at different levels and over time
- University entrepreneurship ecosystem that provides suitable existing tools
- Students, researchers and other people willing to tackle entrepreneurship activities

BARRIERS AND DRIVERS

Barriers:

- Shortage of time to disseminate call for enrolment
- Difficulties to reach target audience
- Shortage of time to develop the program

Drivers:

- University entrepreneurship ecosystem
- The nature of the Organizing team (University Faculty, Research centers, Research Park) covered a wide range of expertise and capacities that permitted the flawless execution of the programme

LESSONS LEARNED

CHALLENGES

- To be able to offer support to the developed projects after the program ending
- To be able to develop a multi-year program to offer several evolutionary steps to participating teams
- To be able to link industrial needs to program and activities
- To be able to introduce AI and other technologies to SME and big companies in the territory to improve their competitiveness

KEY SUCCESS FACTORS

Within the ICT sector as a transversal technology and, more specifically, AI, Catalonia presents a number of opportunities:

The clear commitment of the Government of the Generalitat (the Telecommunications Department) for ICT as the engine of the new digital economy era.

The exponential increase of business opportunities that are emerging from these technologies in the main sectorial business (production processes, marketing, security and control, etc.).

The investment in the creation of new spaces that serve as a real test for these technologies (such as the Catalonia Living Labs) that allow them to develop these new business ideas in open innovation environments and centered on end users applying models of citizen participation.

Catalonia during 2017 had about 100 companies focused on the development of products and services around AI with a turnover of around €120 M and with a forecast of exponential growth in the coming years. Additionally, we add that Catalonia is the third region in attracting European

public research funds and that Barcelona has now been recognized as the best place for entrepreneurship promotion in southern Europe (http: // www. iceb-edu.com/noticia/barcelona-la-tercera-mejor-ciudad-europa-para-los-emprendedores), betting on the creation of incubation spaces specialized in accelerating these types of technologies (eg Pier 1). Consequently, a substantial increase in investment attraction is evidenced to facilitate the success of these new intensive research business ideas.

With all of these strengths that the territory presents, in 2017 the UAB created a program that allowed:

-access to the new artificial intelligence technologies emerging from the research of the UAB Campus in the field of autonomous driving

-business and entrepreneurship training

The aim of this program was to promote new business ideas in this specific environment and to be able to promote the creation of new companies. The main aim was to increase the competitiveness of the Catalan business market in this new era of the digital revolution. This previous program has been essential to the success of the following programs, since it allowed for stakeholders to gain insights and learn from experience. Thus, making it possible to continue improving future programs.

We want to emphasize that the program is part of the territory of the B-30 and, more specifically, under the framework of the HUB B30, an alliance to promote innovation in the territory through different stakeholders, such as the UAB Campus, Eurecat (https://eurecat.org/en/) and the B30 Area Association (https://ambitb30.org/en/, http://hubb30.cat/en).

FURTHER INFORMATION

AWARDS AND RECOGNITION

NA

TRANSFERABILITY

The program is easily replicable in different themes and challenges. Also, it is possible to transfer and replicate this program in other locations provided that there is an AI research and entrepreneurship environment (i.e. Technical and Business University) present.

LINKS

http://www.ai4all.cat/

https://www.uab.cat/web/sala-de-prensa/detalle-noticia/nuevo-programa-para-acercar-la-inteligencia-artificial-en-la-industria-1345667994339.html?noticiaid=1345767400432

https://www.uab.cat/web/noticies/detall-de-noticia/arrenca-el-programa-ai4all-intel-ligencia-artificial-aplicada-a-la-industria-1345468590026.html?noticiaid=1345769957542

https://www.uab.cat/web/sala-de-prensa/detalle-noticia/presentacion-de-los-proyectos-desarrollados-en-el-programa-8220-ai4all-inteligencia-artificial-aplicada-a-la-industria-8221-1345667994339.html?noticiaid=1345778337025

https://www.uab.cat/web/sala-de-prensa/detalle-noticia/udecision-mejor-idea-innovadora-del-programa-ai4all-inteligencia-artificial-aplicada-a-la-industria-1345667994339.html?noticiaid=1345779666738

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