oper.CBI

OPENING INNOVATION

Quo vadis?

30.11.21

ALMACUBE

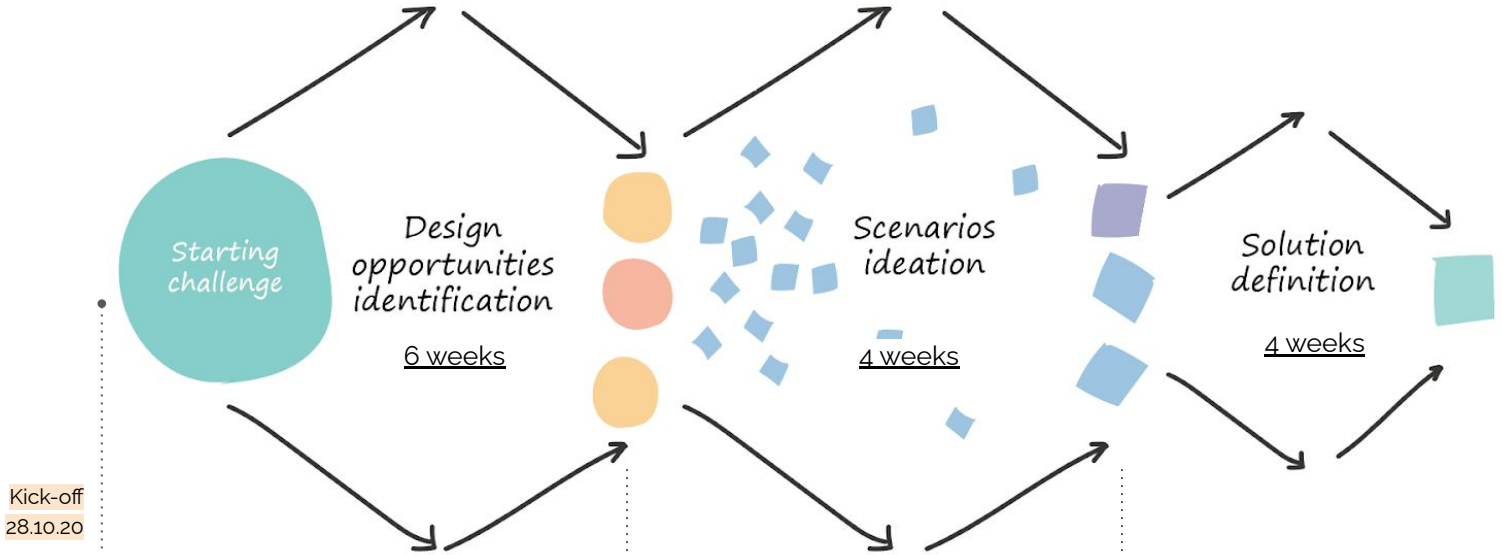
EMPOWERING INNOVATORS

Alma Mater Studiorum - Università di Bologna

Our 8th year!

The very first CBI

PROCESS OVERVIEW



Kick-off
28.10.20

Digital transformation academy
27-28.11.20

1st milestone
4.12.20
Goal: identification of three design opportunities based stakeholder needs and technological, cultural, societal trends

Research hubs week
14-18/12/20

2nd milestone
26.01.21
Goal: generate and test as many ideas possible, to end-up with a selection of the three most promising ones.

Research hubs week
8-12/02/21

3rd milestone
26.02.21
Goal: define the final concept, develop a high resolution prototype and a road-map to implementation

KEY LEARNINGS

1. WHY CERN COMPETENCES?

Digital transformation course

How might we make the most of the connection with CERN, without necessarily aiming at technology transfer and taking into account the variety of OPER.CBI challenges?

"Change your medical point of view, look at physics!"

CERN Knowledge Transfer Officer

CERN tech is 30 years ahead. Transferring those tech to our society is a huge opportunity.

CERN inspires us with its knowledge and connections

CERN is the place that helps us connecting our universities

CERN embodies big data analysis competences

2013 -14

2014 -15

2015 -16

2016 -17

2017 -18

2018 -19

2019 -20

2020 -21

2. TECH DRIVEN HCD PROJECTS

Need - tech match

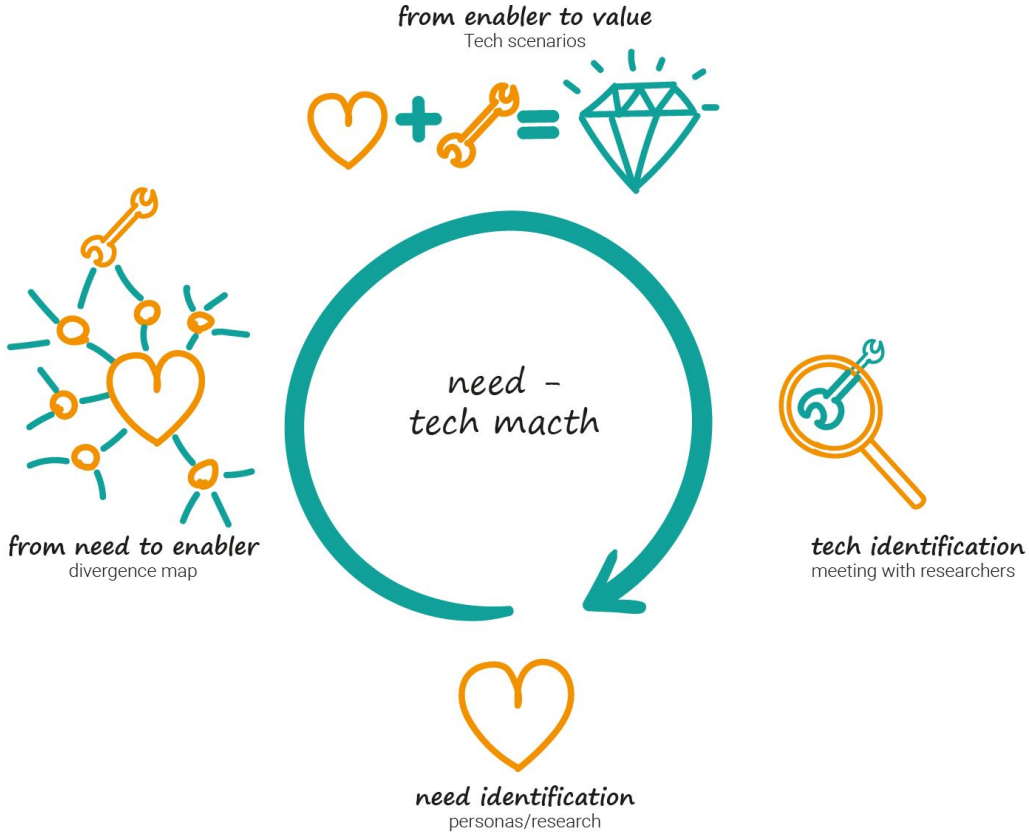
How might we support students to match the needs with the right tech enabler?

We have developed specific tools & process:
1- Need identification: relevant needs are detected , through human centred research.

2-From need to enabler: the visual tool adopted is the ***divergence map*** . A specific need is placed at the centre and surrounded by "x factors", which are the interesting elements derived from the research, in order to contextualize the need. The combination between need and different "x factors" allow the brainstorm of different possible enablers.

3- From enabler to value: the tools adopted is the ***"tech scenarios"*** where the enabler isn't described through a specific solution but through the functions it should perform in order to address the starting need. Furthermore, tech scenarios aims at identifying the value which can be provided, according to the enabler functions and the need.

4- Tech identification: the tech scenarios are discussed with the researchers.



3. SCIENTISTS ENGAGEMENT (beyond CERN)

How might we support students to interact effectively with experts from research centres, considering that scientists work on futuristic challenges and tend to have an higher motivation towards projects that deal with SDG at large ?

WHEN? In which phase of the process should we involve researchers?	HOW? to enable researchers, with a vertical & specific expertise to contribute?
On demand Goal: specific advisory	**Professors** & researchers from Oper.CBI network
Ideation (2nd phase) goal: technology - need match Connection with experts	**Ideasquare** Students "tech scenarios" presentation to **KTO** **KTO** technology presentation to students. **Phd** winter school
Ideation (2nd phase) goal: divergence & inspiration Connection with experts	Informal meeting (aperitivi) with **researchers who want to deal with students.** **CBI alumni & CBI aficionados**
Definition (3rd phase) to evaluate and deepen technologies	Remote connection with **specific researchers** Laboratory test with **specific researchers**

KEY CHALLENGES

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1. The dark side of Multidisciplinarity

- Integration with university courses,
- Internship recognized or not,
- Credits recognition from departments,
- avoiding overlapping of classes,
- avoiding overlapping)

2.Change the world one project at time

- Select the best student, not the reacher (company funding is needed)
- No broad messages, empower local enterprises.
- Stronger connection with SDG (Real impact but “edulcorated message”)

3.Sense of community “remotely”

- Hands on activities
- Interaction among students from different teams

ACADEMIC RESEARCH

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1. DT Mindset

The DT mindset is a scientifically validated questionnaire, developed by Oper.Space, which will help students and professionals to reflect on their ability to deal with innovation projects, using the Design Thinking approach.
A website gives the chance to assess it.
https://www.designthinkingmindset.com/

2.Experimenting innovation process with students

Potential Special issue CIJ - Work in progress

SO WHAT?

OPER.CBI IMPACT

1. Incubated start-ups:
(Air-box, Lac2Lab, see more on https://www.emiliaromagnastartup.it/it/innovative/imprese/lac2lab)

2.Resume empowerment
(prizes, official recognition, exhibitions)

3.Job opportunities

EmiliaRomagnaSTARTUP
La rete per la creazione di impresa innovativa

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Lac2Lab

LAC 2 LAB
From the table to the lab bench

Settore di applicazione: Agroalimentare, Energia e Ambiente,
Smart Specialisation Strategy: Agroalimentare, Industrie dell

QUOTES

QUOTES - COMPANIES

“After taking part to OPER.CBI I understood that SDG can be relevant and achieved even by an italian SME.”

SIT- Società italiana tecnospazzole
https://www.sitbrush.com/it/Storia-SIT-Tecnospazzole-Chi-Siamo.php

“OPER.CBI is one of the few activities we consider truly innovative since the last three years.”

AIMAG https://www.aimag.it/

*The authorization to use the quotes has yet to be requested

QUOTES - STUDENTS

"For me it was like when a person, whose favorite dish is a salami sandwich, is forced to eat vegan for a week: in the end it's really good for you, but in the meantime it's very difficult. Now, with a cold mind, after all these months, I think that CBI has been fundamental and actually, the first things that come to my mind about the project are the positive ones."

"a beautiful introspective experience of personal and professional growth."

"I think these opportunities for students are super interesting and important. As professors, don't stop proposing them, sponsoring them and fighting for more and more opportunities like this in the university. "

"Awesome. It was fun, it was different. It taught me so much. It was a much better than a boring internship at some of those inflated cocky companies where people think you're there to listen to them because it has always been like that. "

"From OPER.CBI I learnt how much can we learn from ourselves and our own field of work/studies from people we don't know, even if they study or work in fields that are completely different to ours."

"I learnt that it takes time for ideas to be shaped and that uncertainty is an asset. We didn't have predicted outcomes to reach or strict paths to follow."

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Thanks!

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