

Challenge Based Innovation (CBI)

IdeaSquare student programs
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Idea^s

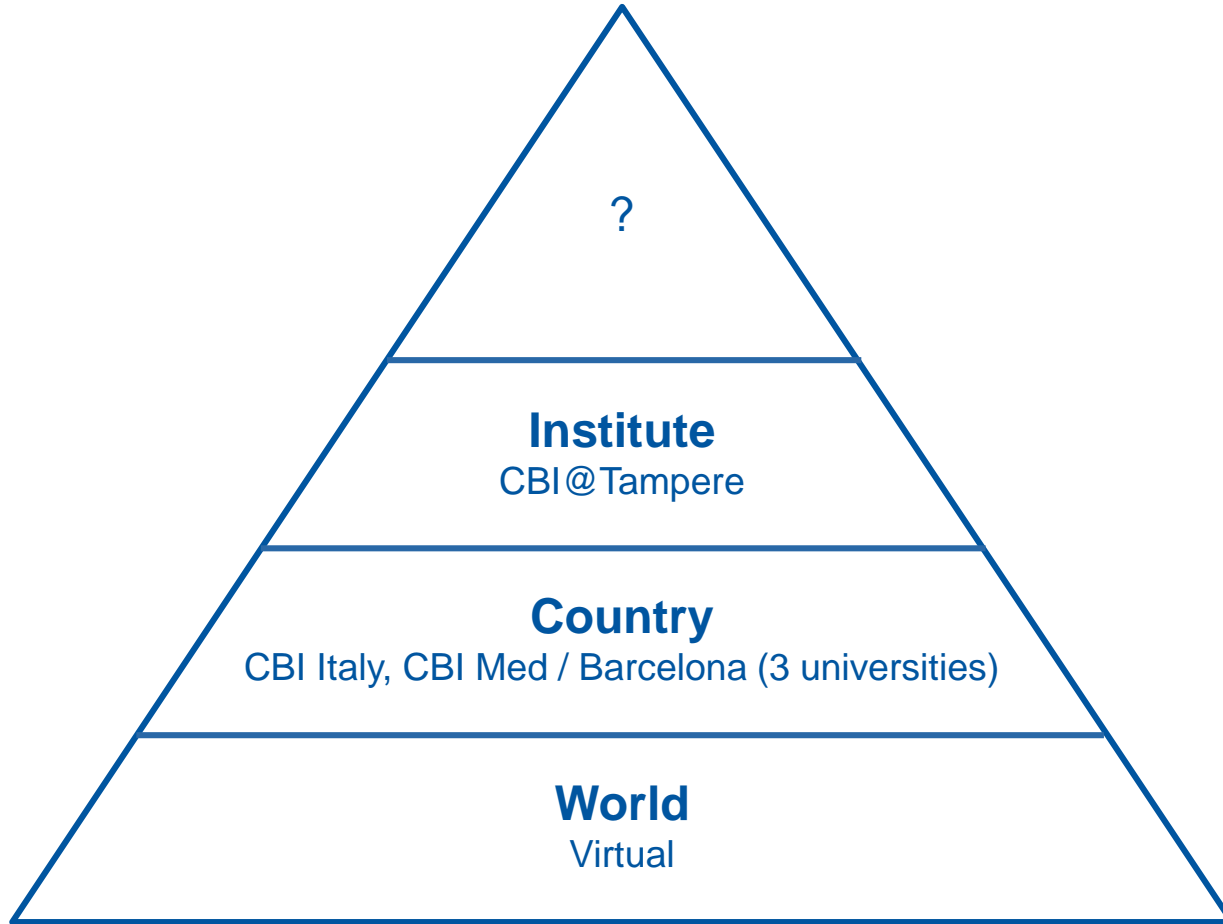
Contents

- CBI in a nutshell
- Facts
- Examples of student projects
- User experiences
- Student courses in 2019



Shaping future innovators

- CBI is a project course focusing on societal challenges. Many of the courses use UN Sustainable Development Goals (SDGs) as a framework for the challenges
- Partner universities are in charge of organizing the courses. IdeaSquare provides the space, facilitates collaboration with CERN staff, and organizes inspirational lectures and visits at the CERN site
- CBI courses are often **multidisciplinary**, **end user-driven** (as opposed to technology-driven), and **hands-on** (as opposed to theoretical)
- The courses are also **intensive**, with 1 teacher per 4.2 students on average



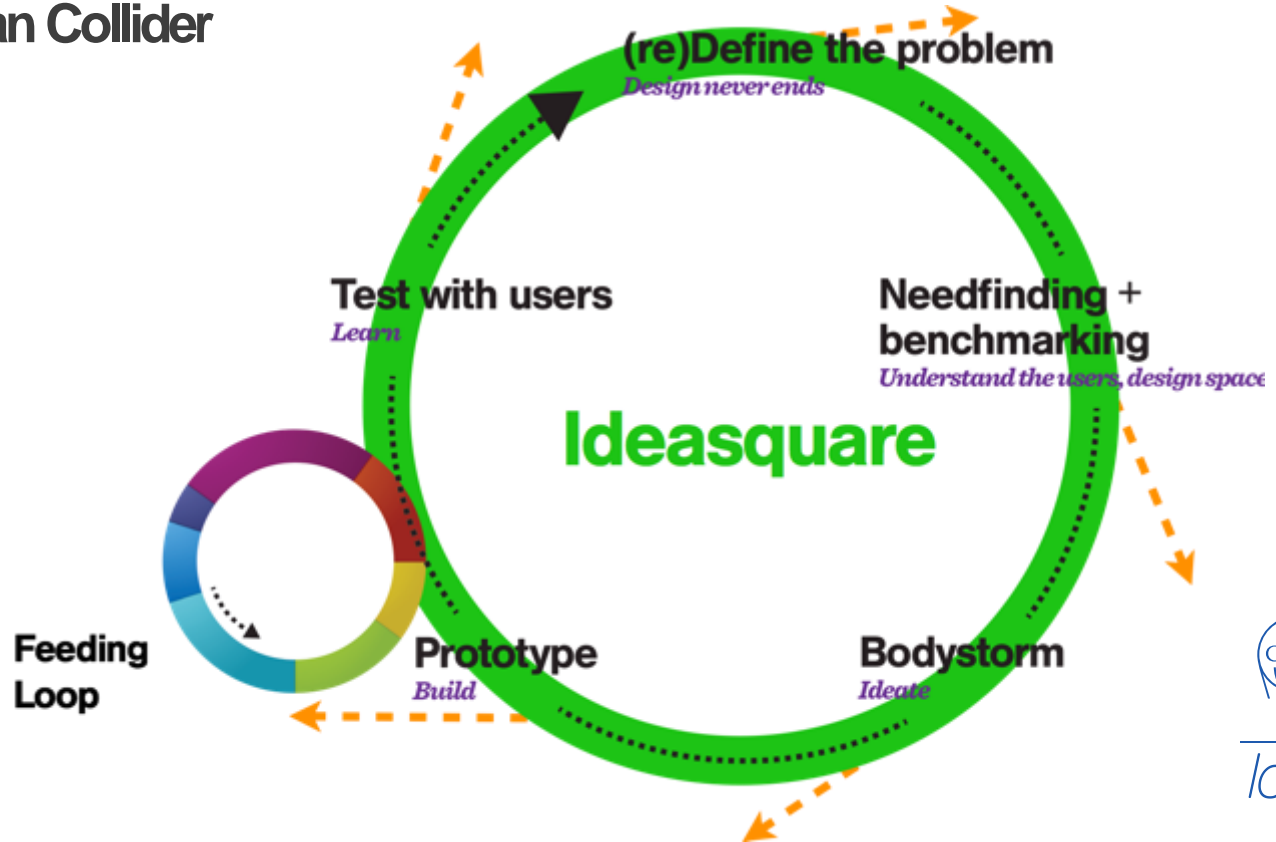


SUSTAINABLE DEVELOPMENT GOALS



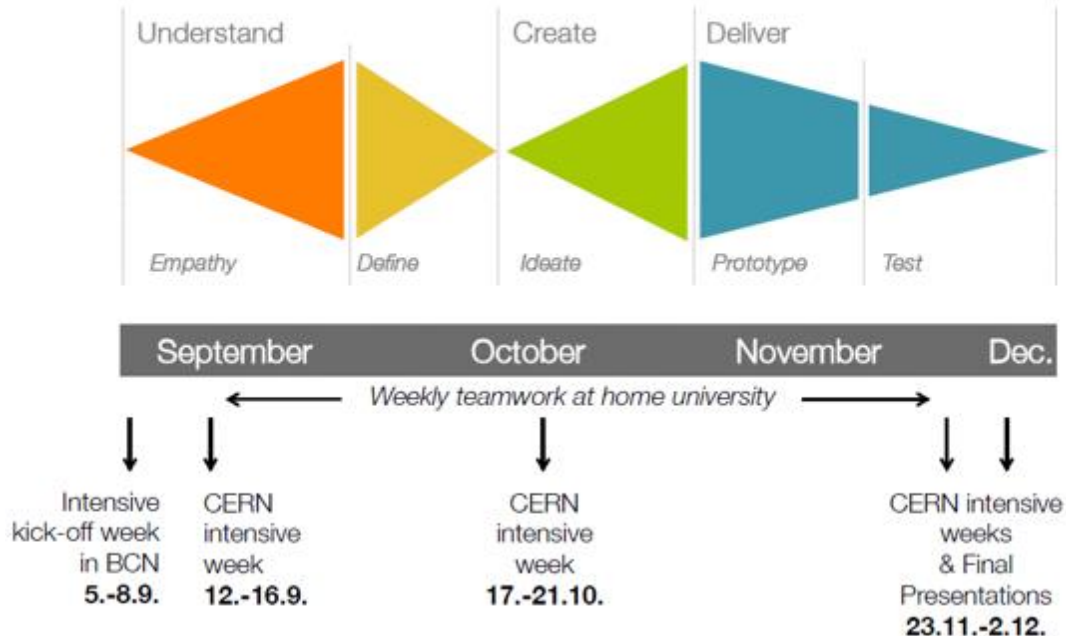
IDEASQUARE

The Small Human Collider



TYPICAL STRUCTURE OF MSC-LEVEL STUDENT PROGRAM AT IDEASQUARE (CBI)

CBI TIME LINE: SEPTEMBER 5TH – DECEMBER 2ND



The length of the course may vary from a few months to 6 months

Engagement with CERN

- Working with CERN tutors
- Exploring CERN technologies, working with Knowledge Transfer
- Inspiration
- Communicating open science with the public

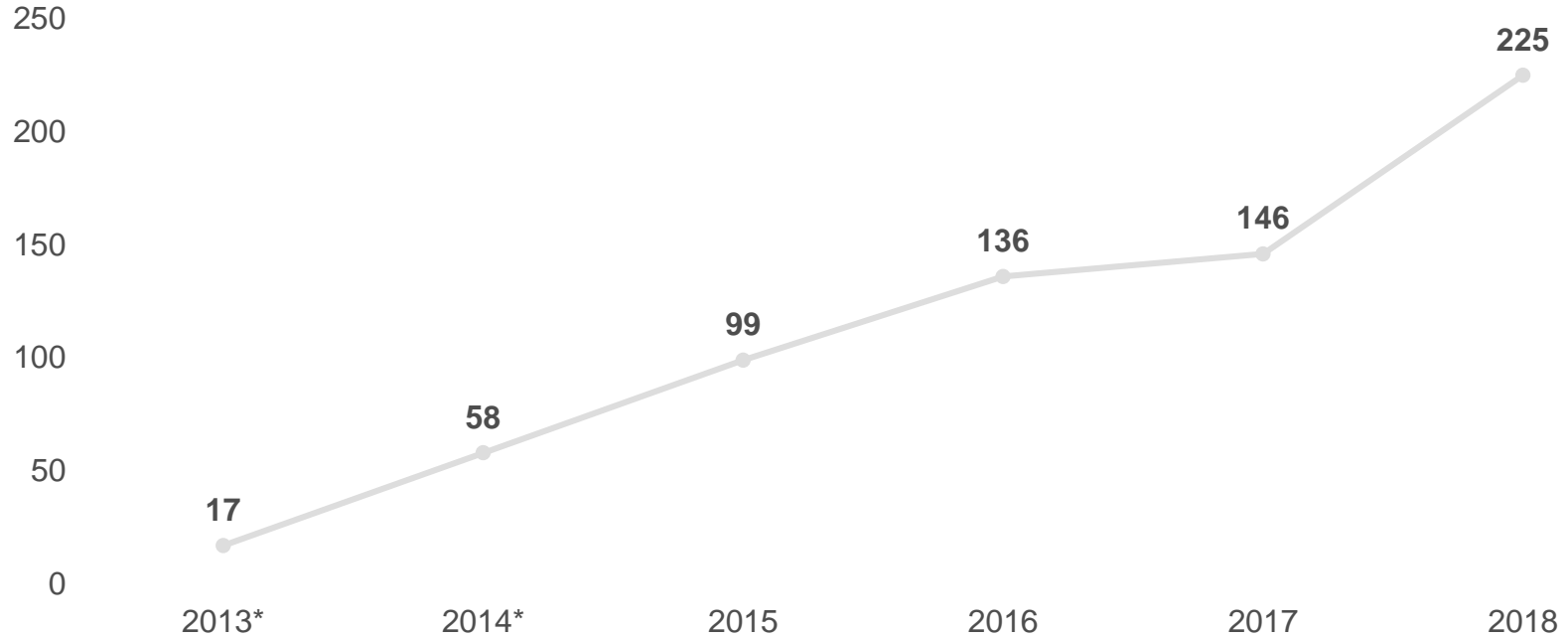


FACTS & FIGURES



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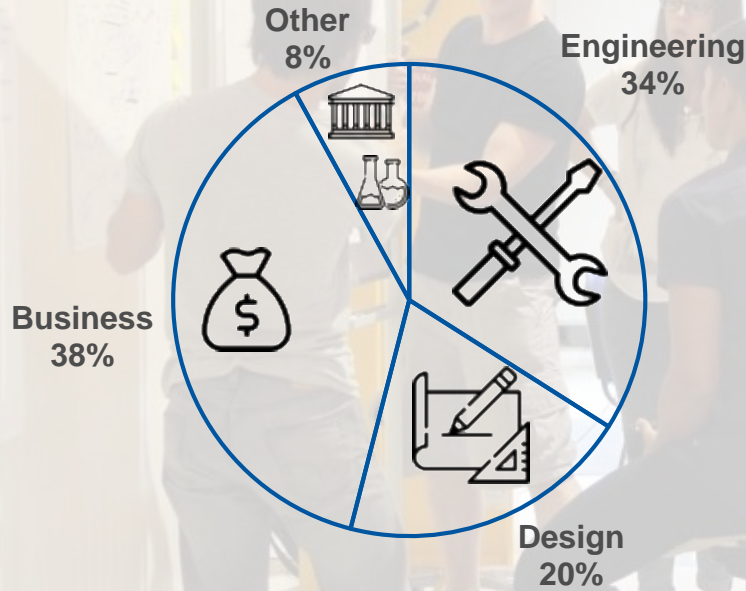
IdeaSquare has hosted over 600 students since 2015



*2013-2014 data on IdeaLab, predecesing IdeaSquare



In 2018, IdeaSquare hosted a total of 225 students

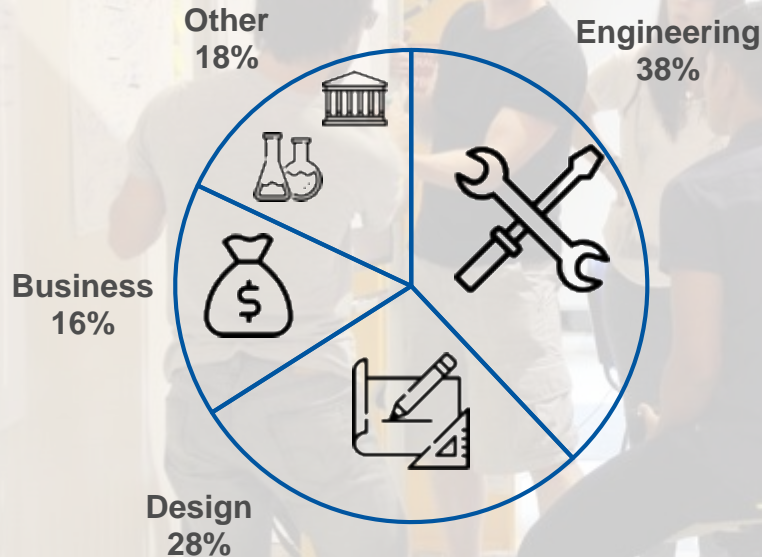


52% female students

**4 CBIs +
6 other courses:**

- Innovation for Change (50 students)
- öBot (33 students)
- Laurea BootCamp (20)
- CREA Geneva (16)
- CESP: CERN Entrepreneurship Student Programme (10)
- ATTRACT Young (6 students)

In 2018, 4 CBI courses with a total of 89 students



52% female students

12 Universities:

ESADE Business School, IED Barcelona, Universitat Politècnica de Catalunya, Pace University New York, Swinburne University of Technology, Instituto Politecnico do Porto, Hochschule Mannheim, Tampere University of Technology, UPV/EHU University of the Basque Country, University of Bologna, University of Ferrara, University of Modena e Reggio Emilia



Challenge Based
Innovation Course at
CERN

@cbicern

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815
Total Likes

812
Total follows

20 January - 16 February

Last 28 days ▾

Post reach

4,514

▲ 4.4k

Post engagements

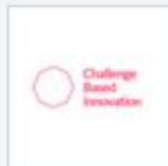
2,614

▲ 2.6k

New Page likes

35

▲ 26



Challenge Based Innovation @ CERN alumni

Standard group

Start a new conversation in this group



Post



Santeri Palomäki

Development & Innovation at CERN

2w

Hello all! We've had a few questions on how students could showcase their CBI experience on LinkedIn. Here is one example by yours truly from a few years ago (back then it was called the "Master innovator" diploma, nowadays I ...see more



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Santeri Palomäki

Project Associate at CERN

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our case company Imarinen, the second largest private pension insurer in Finland. The concept is a digital platform that connects employees, occupational healthcare providers, Kela (The Social Insurance Institution of Finland) and employers to improve wellbeing at work with smart analytics. Our concept won the first price (€10,000) in the competition.

GROUP

Certifications



Members with a certification get 5x more profile views



110 members

See a



99+

Invite members

About this group

This group is for Challenge Based Innovation course students, teachers, coaches, alumni, and those interested in the course. The goal of the group is to connect with your peers and share material and ideas related to human centred design, technology, and sustainable

Show more

Group rules

Please respect others and keep the conversation focused. The rules of the group are:

1. No discrimination whatsoever is tolerated
2. This page is not for advertising purposes. Presenting ideas for comments, sharing events

Show more

EXAMPLES OF STUDENT PROJECTS

HELPING CHILDREN IN THE AUTISM SPECTRUM TO COMMUNICATE

IV.
Solution

https://www.youtube.com/watch?v=w5S8vSHH_XA



Connecting lonely elderly people with students over lunch

PREVENTING HIP INJURY FROM INVOLUNTARY FALL



Idea^s



Monitoring chronic asthma to prevent asthma attacks



Your fridge sending a message when food is ripe to eat *for you*

STUDENT COURSES IN 2019



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CBI and Design the Future (DTF)

CBI Approach	DTF approach
Focus on the needs of society today (need finding)	Focus on the needs of society in the long term (scenario building)
Approaches (technology/design) solutions from the perspective of feasibility, viability	Technology feasibility and viability are not an issue since technology breakthroughs occur. Focus more on what transformative aspect technologies must have for enabling social changes.
Practical and realistic (hands-on) prototyping is essential	Prototypes should be conceptual since many envisioned technologies do not exist today
Focuses on concrete societal cases in need of solution	Focuses on a holistic view of society



12 CBI & Similar Courses under planning for 2019

- On-going courses looking to continue: Barcelona, ER, A³, Tampere & Basques (Design the Future – possibly with UNCTAD participation)
- **New CBI under planning:** Frisian Design Factory (Netherlands)
- Other courses planned: öBot, CREA, CESP, I4C, RCA, Laurea BootCamp
- **New concept pilot:** CERN-HPD Summer School





CERN-HPD Summer School

Unleash the potential of state of the art CERN technologies!

A multi-disciplinary program consisting of 8 preparatory evening lectures at TU Delft and 3 weeks intensive summer school at CERN.



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All you need is

..Love PHYSICS

..Design

..Business

..and Engineering.

Questions? Comments?

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