

What are we doing here?

CERN as an engine of scientific collaboration;
IdeaSquare as the innovation space at CERN.

CBI.ATTRACT, March 27th, 2023

Ole Werner



Idea^s



The CREW at IdeaSquare



Alexia Yiannouli
Communications



Laura Wirtavuori
Edu programmes



Ole Werner
Edu Programmes



Dina Zimmermann
Prototyping



Markus Nordberg
Fixing things



Pablo Garcia Tello
The bear from Mowgli



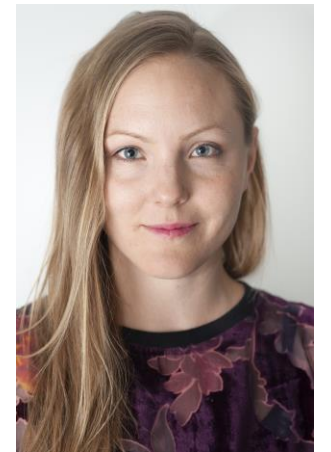
Laëtitia Pedroso
Events



Catarina Batista
Edu programmes



Jimmy Poulailon
Communications

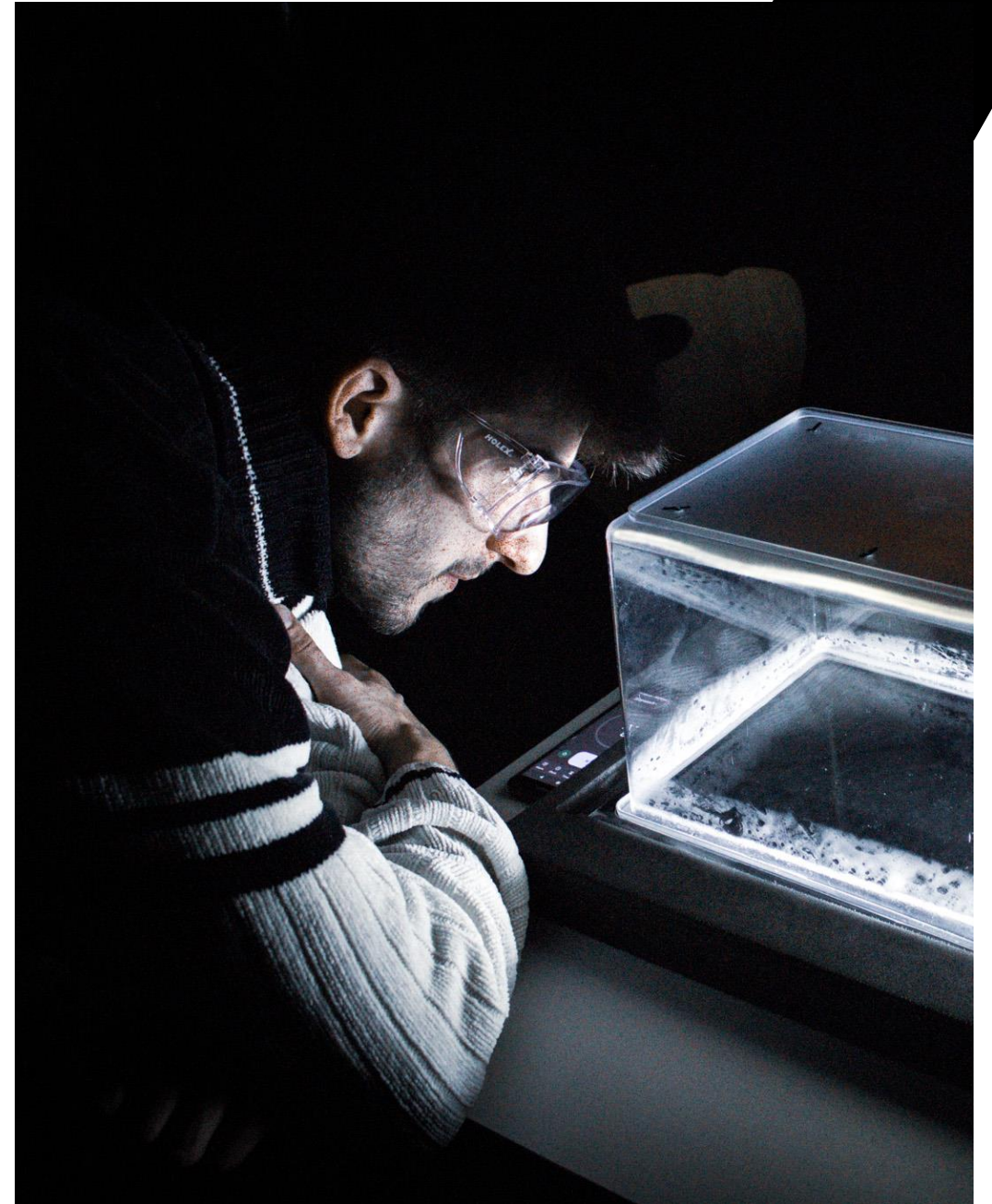


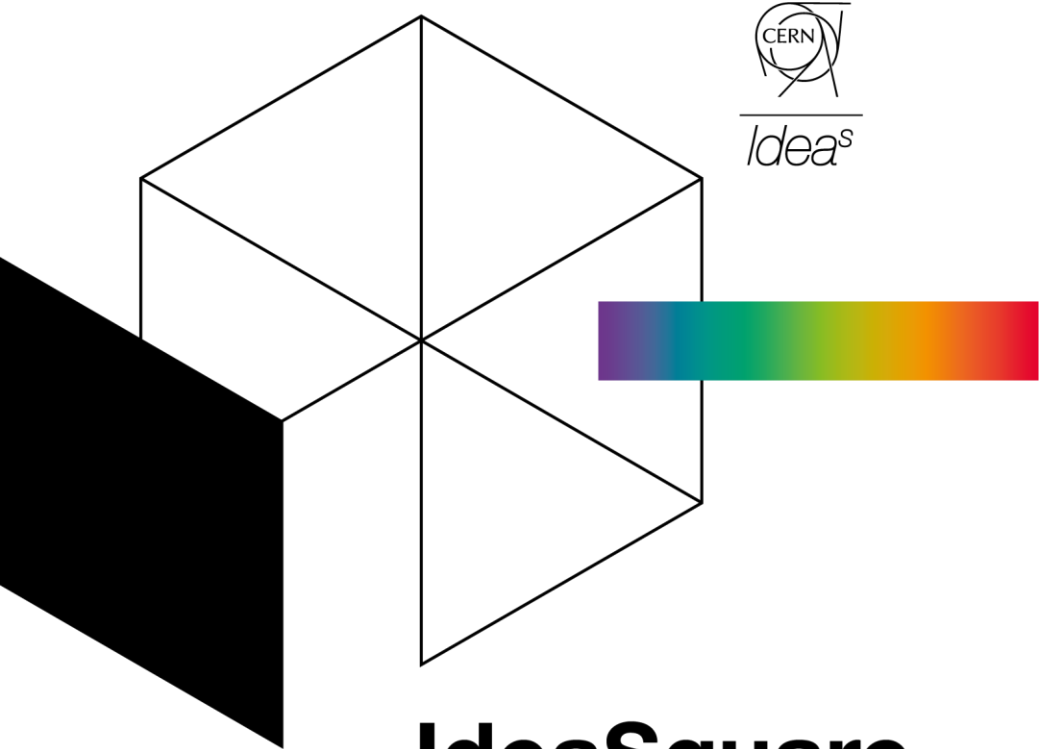
Tuuli Utriainen
Cosmic collaborator

Who am I to talk to you

Ole Werner

- Galactic Firefighter at CERN IdeaSquare
- BSc Psychology, MSc Behavior Change
- Love to excite people, want to understand your minds





IdeaSquare
The innovation space at CERN

General building safety rules



Safety is first priority.

BUILDING SAFETY B3179



- In all inside areas of Building 3179 **smoking & alcoholic beverages are strictly forbidden.**
- Working is possible 24/7 with CERN access card, **sleeping is prohibited in all CERN buildings.** Last person to leave the building is a teacher.
- Eating, drinking, coffee breaks are encouraged in the kitchen (and open) area. But not in the Red Bus, please!
- Cameras, **photos**, posting in social media **are highly encouraged! :)**



- Free to use
- Work under supervision
- Restricted area



This is a CO₂ monitoring device.

There is one in every room inside ID2.

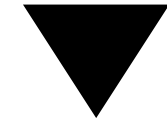
If the value is over 900ppm:

- Leave the room you are in to let it ventilate until the CO₂ concentration goes below 600 ppm. ;
- Ask one of the ID2 members to open the main doors to ventilate the whole space.

Agenda 4 the Week

	Monday 27-03	Tuesday 28-03	Wednesday 29-03	Thursday 30.03	Friday 31.03
9.00-9.15 9.15-10	<i>Welcome</i> Arrival at IdeaSquare, Introduction to CERN & IdeaSquare - Ole Werner	<i>Networking</i> Curious Breakfast AIM: create a connection with researchers	<i>Activity</i> Divergence Map with Pino Mincoelli Diverging with the support of Ideasquare and Knowledge	<i>Networking</i> Curious Breakfast AIM: create a connection with researchers	<i>Teamwork</i> Finalizing the presentation
10.00-11.00	<i>Talk</i> Why are we here - Markus Nordberg	<i>Teamwork</i> and Interviews with Tech experts	Transfer	<i>Activity Launch</i> Value assessment - Matteo Vignoli and Bernardo Balboni Presentation guidelines	<i>Plenary presentation</i> Presenting the week's learnings. Feedback & Discussion IS + Guests
11.00-12.00	<i>Talk</i> Exponential Thinking - Pablo Garcia Tello	<i>Teamwork</i> and Interviews with Tech experts		<i>Talk</i> John Wood: Intro and Q&A + review with teams	
12.00-13.00	Lunch	Lunch	Lunch	Lunch	Lunch
13.00-14.00	<i>Activity Launch</i> How to interview - Ole Werner Interacting with researchers - Eleonora Musca	<i>Activity</i> SDGs-Game with Catarina Batista	<i>Activity</i> Hat-Exercise - Knowledge Transfer (13.30-15.30)	<i>Teamwork</i> and Interviews with Tech experts	<i>Visiting CERN</i> Visit to CMS
14.00-15.00	<i>Project Review</i> Show me what you know about your tech, thinking of potential questions to ask to experts + teamwork (Ole Werner, Catarina Batista)	<i>Plenary Session</i> Open discussion about SDGs/Q&A		<i>Teamwork</i> and Interviews with Tech experts	<i>Visiting CERN</i> Visit to CMS
15.00-16.00		<i>Teamwork</i> Solo work: exploring SDGs	<i>Teamwork</i> and Interviews with Tech experts	<i>Teamwork</i> and Interviews with Tech experts	<i>Visiting CERN</i> Visit to CMS
16.00-17.00	<i>Visiting CERN</i> Visit the Globe Exhibition (Free flow)	<i>Teamwork</i> Solo work: exploring SDGs	<i>Teamwork</i> and Interviews with Tech experts	<i>Teamwork</i> and Interviews with Tech experts	<i>Plenary session</i> Reflection
17.00-18.00	<i>Visiting CERN</i> Pablo's VIPS&VUPS Special tour - Pablo Garcia Tello	<i>Teamwork</i> Solo work: exploring SDGs	<i>Teamwork</i> and Interviews with Tech experts	<i>Team by Team</i> Rehearsal Presentation	<i>Plenary session</i> Ideasquare Reset
EVENING				<i>Fondue night @</i> https://buvettesdbains.com/	

Find the updated Indico-Timetable here!
(Real times)



In case of an emergency

While evacuating, always **go away from the danger!**



Do NOT return to collect your belongings

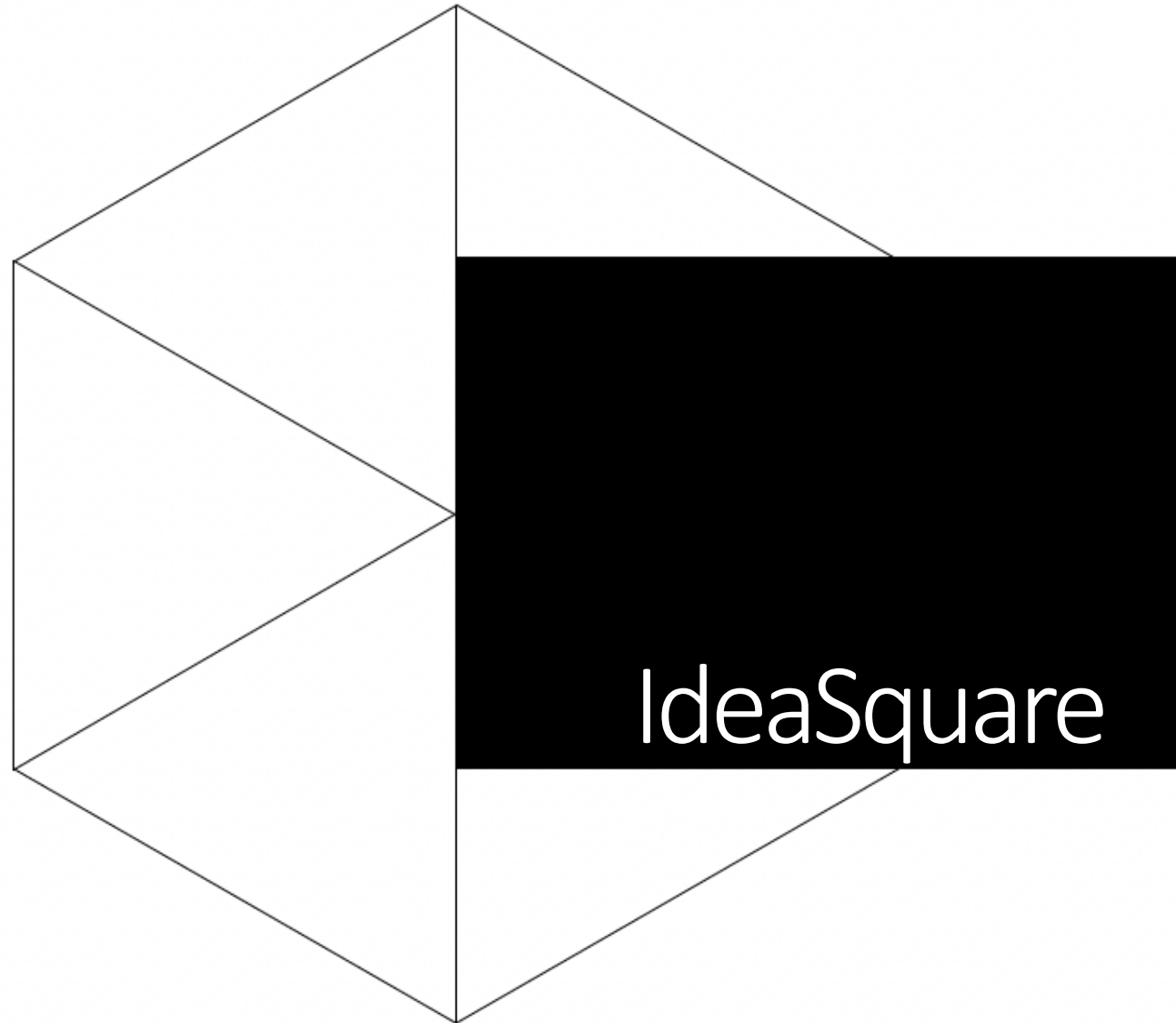


Walk quickly and calmly to your building's designated **assembly point** or as advised by an Emergency Guide or Fire Brigade personnel



Wait at the assembly point until counted and released by the TSO/DSO or the Fire Brigade.

Give to the Fire Brigade all the information they need! **+41 22 767 44 44**



Aren't all CERN labs “innovation spaces” ?

An innovation space is defined as

- a place dedicated to stimulating the creativity of users,
- where innovation projects take advantage of the availability of adapted environments and resources
- allowing prototyping and creativity

(Lewis, Moultrie, 2005; Moultrie et al., 2007)

The combination of an innovation space & CERN means:

- We love to work in teams of mixed expertise
- We encourage “dreaming big” & taking the risk to fail
- We take on problems that don't have an answer (....yet)
- & We have the best decoration (Red elephant in the room)

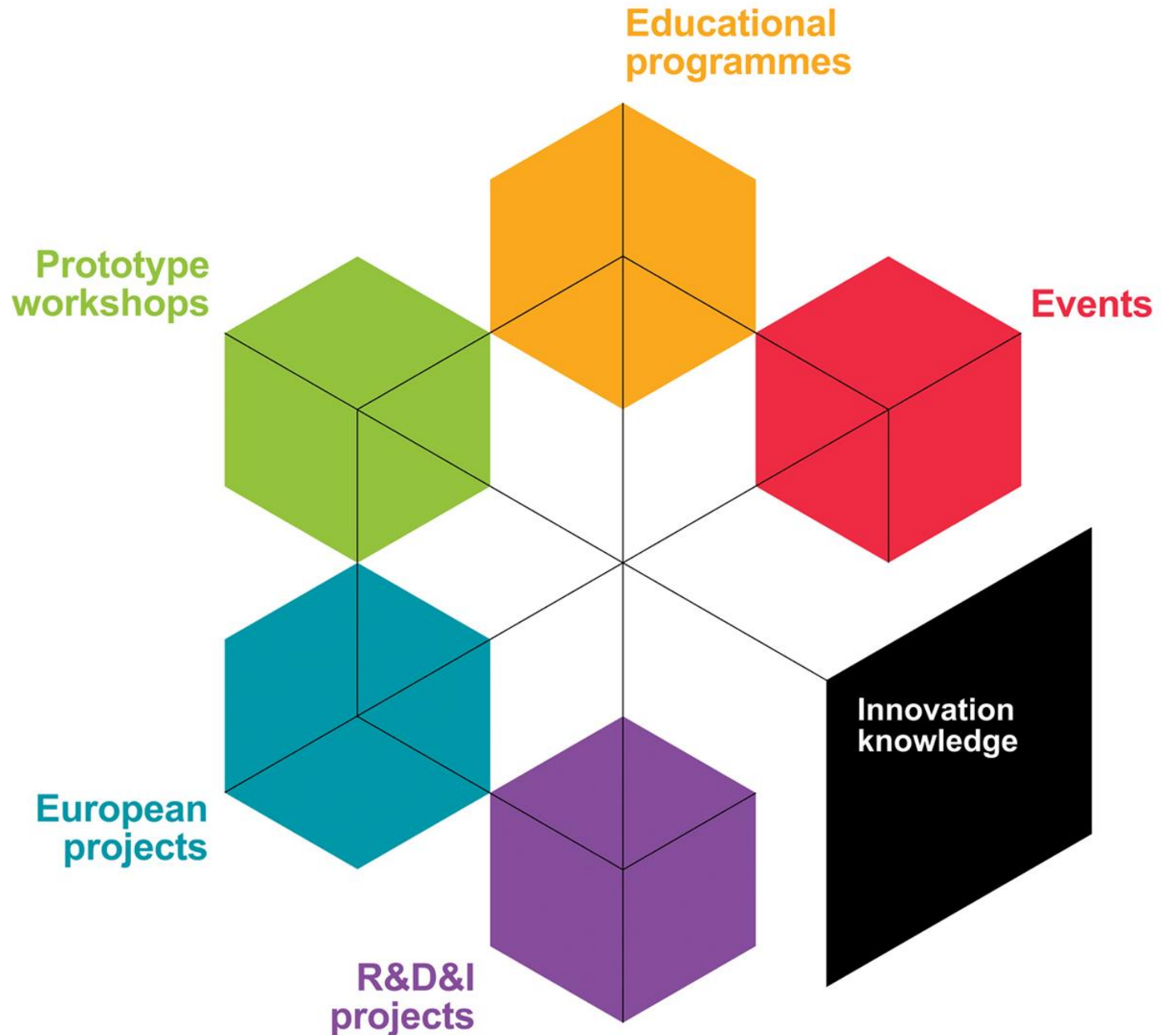


IdeaSquare

The Innovation Space at CERN

IdeaSquare is the innovation space at CERN, that uses collaborative methodologies, access to CERN expertise and cross-connectivity to **ideate solutions for the future of humankind.**

A place where people have the licence to dream.





European projects

Linking science, innovation, and the SDGs

#ATTRACT



- Provides funding for developing early-stage ideas and prototypes on detection and imaging
- Focuses on innovation with high potential outside research
- Engages with MSc-level, cross-disciplinary student activities, seeking for unforeseen entrepreneurial opportunities for the young
- Purpose is to create a new innovation ecosystem in Europe
- ATTRACT is coordinated by CERN (IdeaSquare)



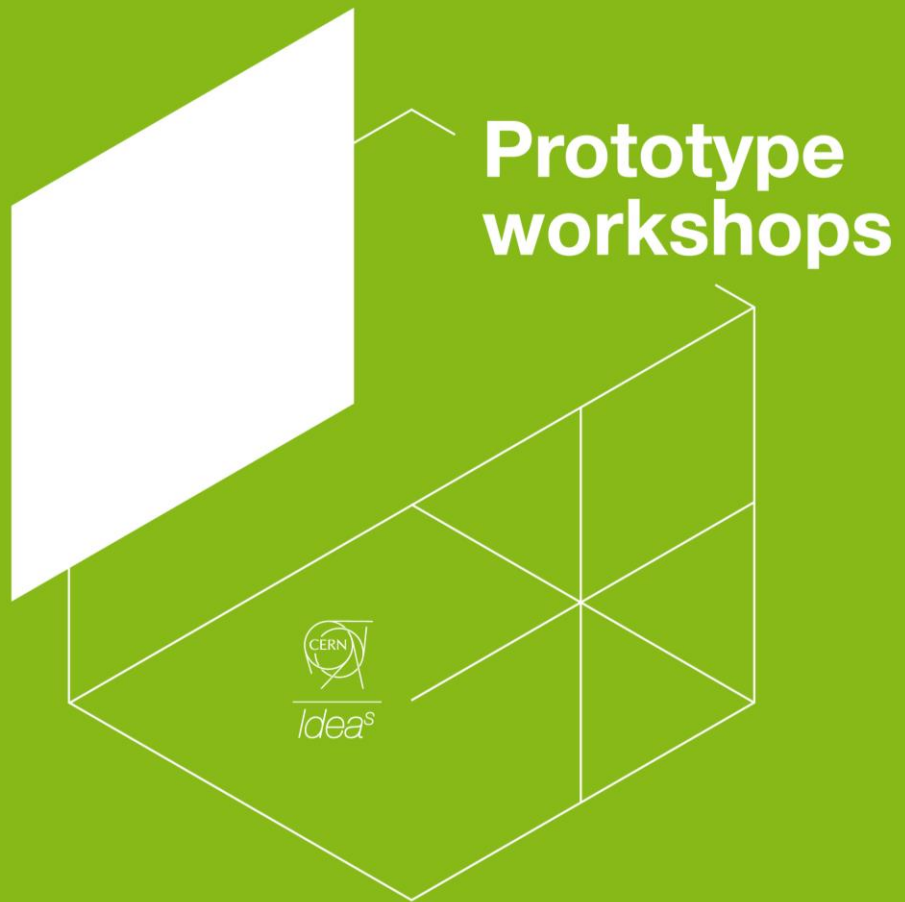
Connecting curious
minds

Events, workshops and hackatons



When the building is not in full use, Ideasquare can offer access to its open work areas, rapid prototyping facilities and its meeting rooms for short, deadline driven Challenge Events, such as :

- Innovation Events,
- Workshops
- Hackathons (an event compressed into a short number of days where participants work towards a concept prototype).



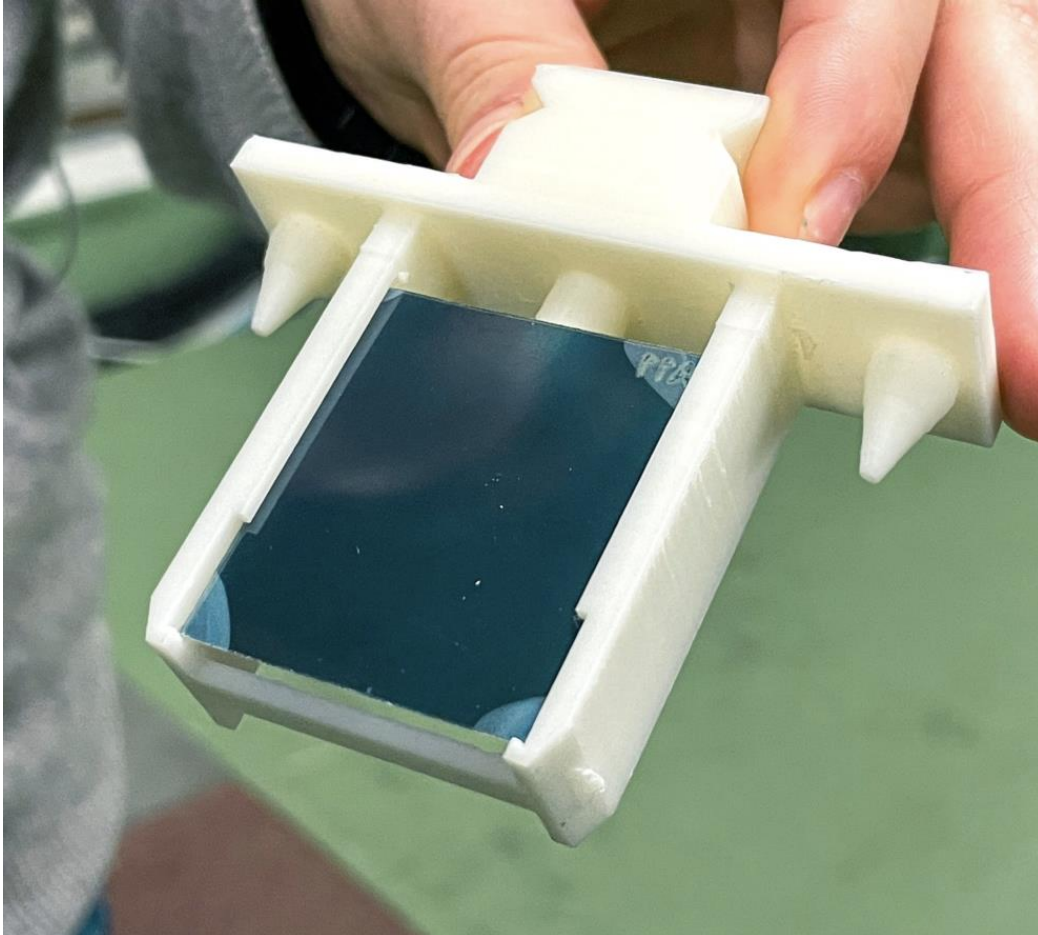
Fast forward through
prototyping

Our Prototyping Facilities



- An open space for ideation
- An electro shop
- A machine shop with a laser cutter
- 3D printing equipment

Example: CLEAR



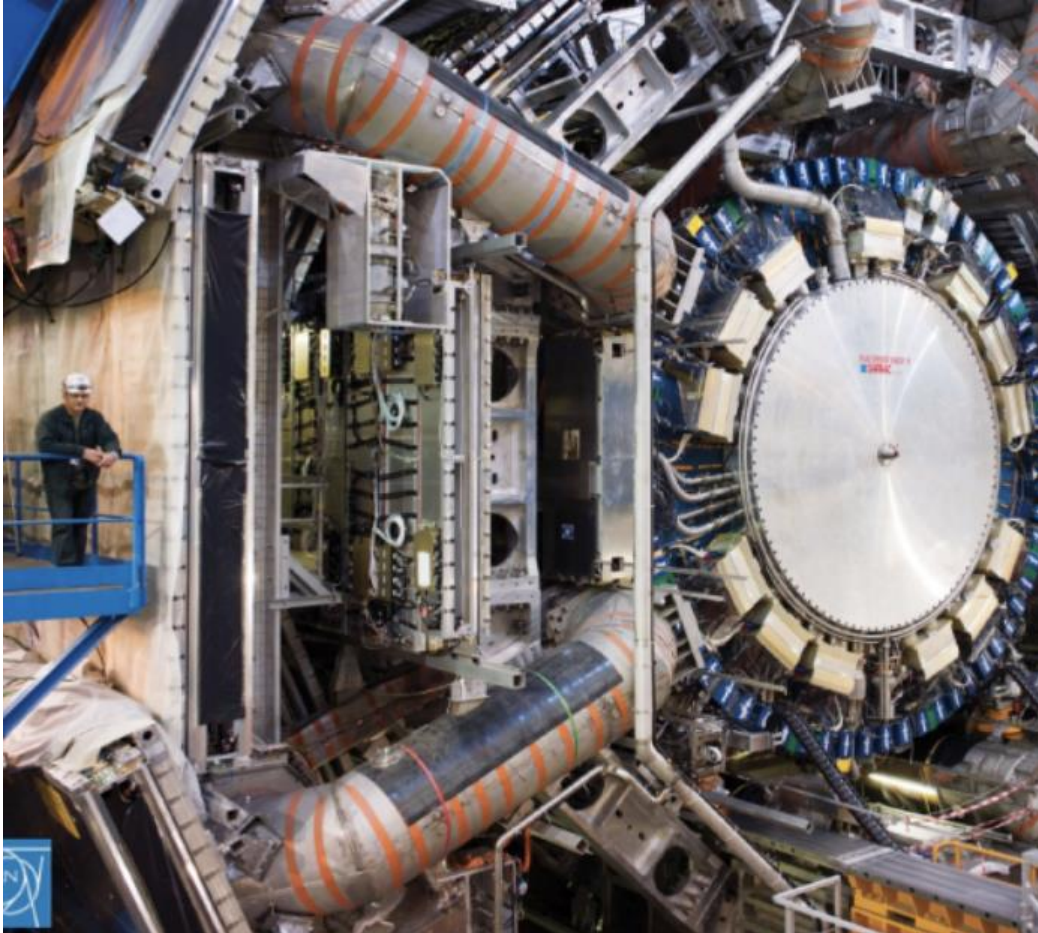
- CLEAR is an electron accelerator that operates independently from CERN's main accelerator complex
- Prototyping and validation of accelerator components
- Researchers are also pursuing two main branches of irradiation tests: radiation hardness of electronic components for space and high-energy physics, and dosimetry for medical applications, in particular cancer therapy.

CLEAR Experiment -
<https://home.cern/science/accelerators/clear> AND
<https://pkorysko.web.cern.ch/C-Robot.html>



Stimulating
instrumentation in
research

Edusafe



- EDUSAFE was a 4-year Marie Curie ITN project that provides training for 10 Early Stage Researchers and 2 Experienced Researchers.
- The project focused on research into the use of Virtual Reality (VR) and Augmented Reality (AR) during planned and emergency maintenance in extreme environments (nuclear installations, space, deep sea etc)..

Edusafe: <https://edusafe.web.cern.ch/site.php>

**Educational
programmes**




**Training and
experimenting with the
innovators of the
future**

Educational programmes




- Ranging from one week to eight months in duration;
- Mostly with multidisciplinary teams;
- In collaboration with universities around the world;
- One proprietary course / methodology: Design the Future
- Incorporating sustainable development goals;
- Different outputs from conceptual videos to functioning prototypes, but following the same philosophy...

Students prototype to TEDxCERN installation



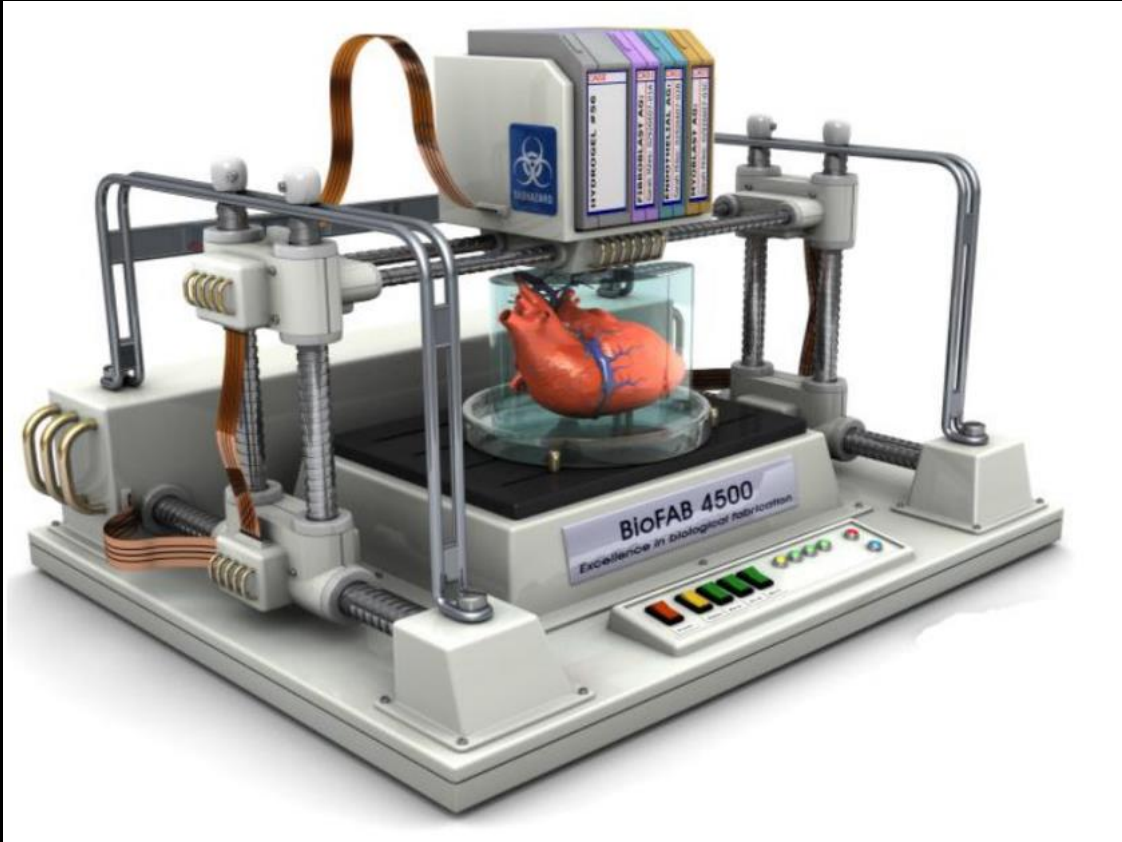
Why?



We believe that for fundamental change to be made, we need more than traditional innovation methods and mindsets

What we are here to do is to help you imagine a future worth fighting for, and to give you the tools and confidence to start building that future.

What to expect from your journey?



"It helps us answer the nasty questions."

Previous students told us, the course helped them to:

- not get stuck with specifics in the beginning
- moving from incremental to exponential thinking
- be aware of uncertainty, and much more motivated to try different pathways if something doesn't work out.

But this is merely the beginning...

