

# IdeaSquare student programmes

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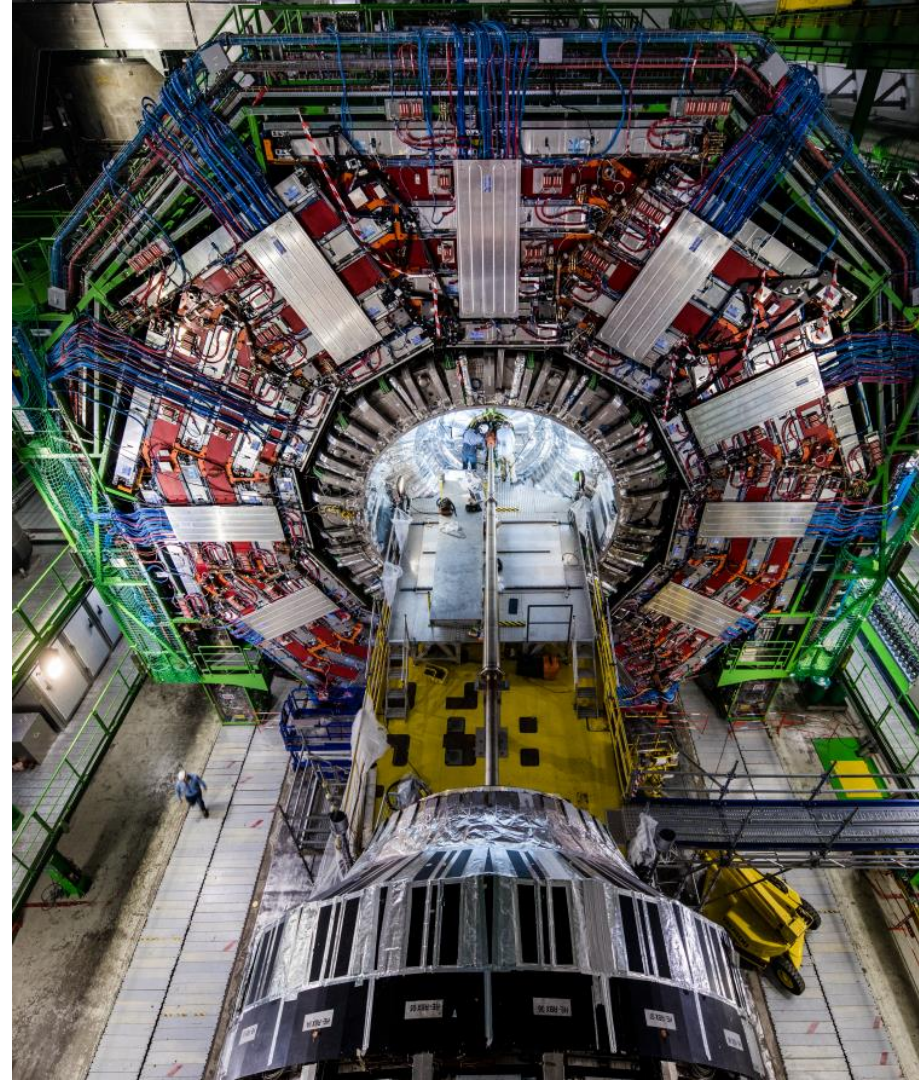
# Student Programmes



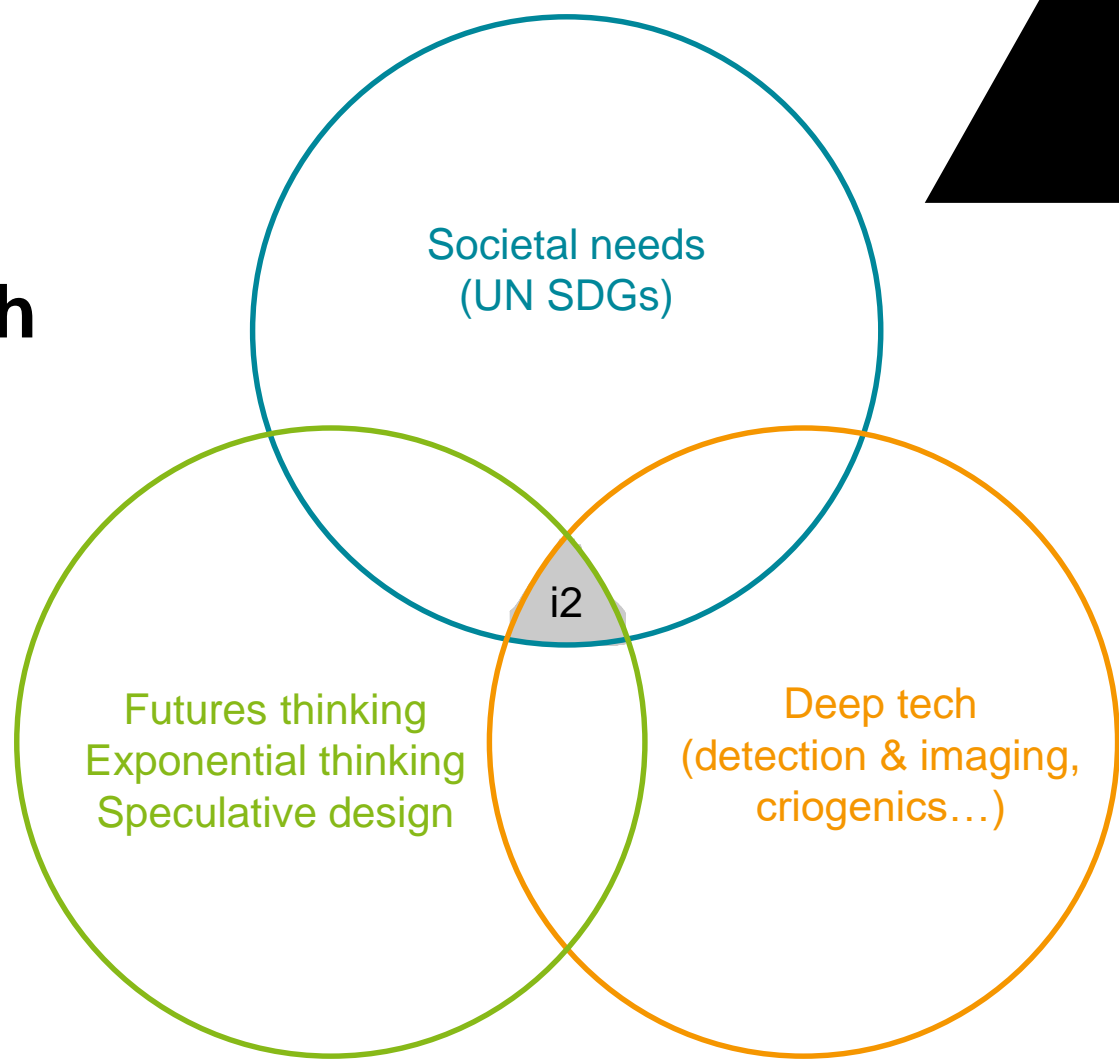
- **+20** active program collaborations;
- Universities from **8 different countries**;
- **Design Thinking** methods to solve global challenges, intersected with **deep tech**;
- **UN Sustainable Development Goals** as a lens in the process;
- **Multidisciplinary teams** of students: business, design, engineering, social sciences...
- CERN researchers who act as technological coaches.

# Standard setup

- The starting point can be an **SDG**, a **technology** (ATTRACT or CERN), or **sponsor challenges**, or a mix of these;
- Duration 1 week to 8 months, 10-50 students per course;
- Final deliverables from **inspirational videos** to **functioning prototypes** to **concept papers**.



# Intersecting societal challenges with deep tech





# Our specialties



- **Order of magnitude thinking (+ estimations!)**
  - Ideas should be disruptive enough to generate excitement
  - While also having a substantial basis behind - “Do the math”
- **Systemic and Exponential thinking**
  - Going for exponential ideas
  - Thinking in planetary levels
  - Nothing is so great that there is nothing bad: what are the implications of your solution?

# 2022 – life comes back to IdeaSquare

Course name	Students	Design	Business	Engineer	Other	Female	Male	Other2	Teaching staff	# of universities	Comments
RCA	0										Didn't happen
ZHDK	11	11				6	5		2	1	Virtualised
Innovation for Change	65	2	9	33	21	26	38		4		
Honours Programme Delft	20		3	13	4	7	13		4	3	
CREA Geneve	26		26			16	10		1	1	
TeSI	25	7	8	10		10	15		3	3	
ESADE Summer School	17		17			6	11		1	1	
Laurea Bootcamp	22	3	5	4	10	13	8	1	4	3	
NTNU Screening week	39		39			16	23		5		
FTSF	10	10				9	1		5	2	
Multiverse Basque country	15				1	8	7		3	1	
CBI Fusion Point 21	36	9	16	11		14	22		6	3	postponed from 21
CBI Fusion Point	26	5	8	13		11	15		6	3	
CBI Tampere	0										
CBI 4 AI	30	8	12	10		11	19		4	3	
CBI A^3	23	12		11		14	9		6	5	
OPER.CBI	6	1	2	2	1	3	3		2	1	
Impact Innovation CDI Munchen	36			23	9	9	27		1		
	12				12	4	8		2	4	Numbers are estimates as not everyone stayed the entire time
NORCC summer school											
	15										Citizen science programme, not linked to unis
CROWD4SDG					15	10	5				
<b>Total</b>	<b>434</b>	<b>68</b>	<b>145</b>	<b>130</b>	<b>73</b>	<b>193</b>	<b>239</b>	<b>1</b>	<b>59</b>		
<i>% of total</i>		16%	33%	30%	17%	44%	55%				



# 2022 - successes

- Most programs came back to **physical** format;
- **New programmes** arose from ATTRACT project collaborations;
- Around **370 students physically** present at IdeaSquare;
- **Team has grown** due to increased demand and thanks to ATTRACT resources (Ole and Catarina joined Laura).
- **Terraforming experiments**;
- Workshops with **CERN personnel**.



# 14 visits on-site



- 14 physical visits from students coming from **13 different universities**;
- **3 new programmes** as part of the ATTRACT collaborations;
- More than **50 prototypes** produced by the teams;
- Frequent **interactions with CERN** scientists as part of the IdeaSquare experience.



# Terraforming development

- IdeaSquare's **new methodological** concept in line with the Strategy Plan, working towards a new, full-fledged Program by 2025.
- Designed to teach systems thinking and adopting a **long term perspective**, as well as helping students to **abandon societal constructs** that might limit their thinking.
- New developments in curriculum integrating **systems thinking, behaviour change and regenerative design**.



# Terraforming experiments

- **1st pilot of 1,5 days** with 22 students from the Challenge Based Innovation A<sup>3</sup> (CBI A<sup>3</sup>) program;
- **Pilot of 5 days** with students from University of the Basque Country (UPV);
- Learnings inspired further iterations and **joint collaborations between academia and industry.**



# Internal CERN workshops

- **3 workshops** inspired by the methodological approach we use in the student programmes (design thinking, divergent thinking...);
- Collaboration with FAP department and FAP-BC group;
- **Actions** derived from workshops started being **implemented internally** (inspiration coffees, retrospective meetings, etc.)
- Interest in using the space for other internal events and **future co-designed workshops.**









# 2023 – new developments



- Continue to strengthen ties within CERN
  - Further workshop offering.
  - Stronger connection with the physics community.
- Terraforming
  - New experiment with PhD students from the Centre of Dark Matter, Melbourne. First two week pilot. First interaction between industry and PhD students.
  - Potential workshop with experts to design and improve the curriculum.
- Research
  - Starting research to measure non-tangible outcomes of the student programs: How can we measure and showcase the value we provide to the participants, academia and industry?
  - CIJ now being integrated into ATTRACT.
- New experiments
  - Discussions with Royal College of Art (1000 students).
  - Offering of Futures and Exponential Thinking sessions to Science Gateway.



# Reflection on 2022 and vision for 2023



- 2022 was a year of not only returning back to "business" but also to **ramp up our offering**. We re-started in full only last June, due to lifting COVID-restrictions, but we've **had more events and participants than ever**.
- The influx of visits and workshops proved to be way higher than first expected and the **enlargement of the team was extremely crucial** to be able to respond to the demand.
- With this, new opportunities arise, as all **members** are interested in **developing new sessions, material and designing more experiments**.
- 2023 is already looking very exciting - if we manage to increase our resources next year, our **connection with Science Gateway** will become stronger and new **experiments** involving **industry and the Geneva ecosystem** will become possible.



**Thank  
you!**

