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# CERN Ideasquare

## INTRODUCTION

Visit of the Founders, London

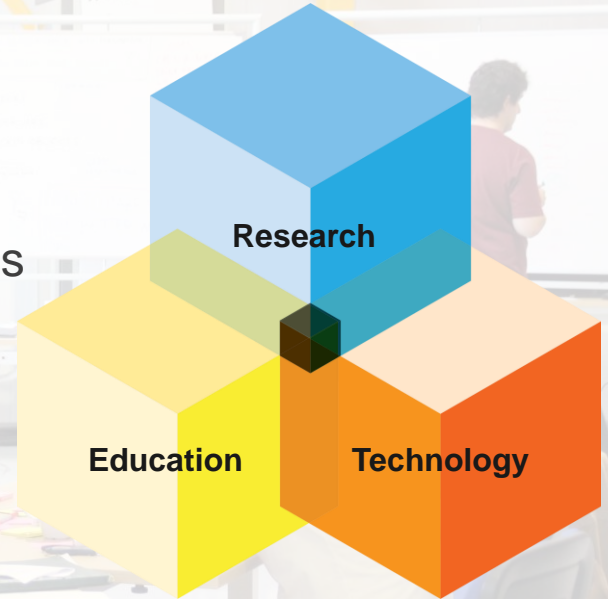


# IDEASQUARE IN BRIEF

“Ideasquare is an experiment to bring together physicists, engineers, industrial partners, early-stage researchers and cross-disciplinary teams of students to work together on detector upgrade R&D and related technologies. The purpose is to co-develop new technologies for research purposes, and at the same time, create a fruitful environment for socially and globally relevant new product ideas and innovation.”

# IDEASQUARE IS

- Project with a dedicated building, hosting:
  - EU-funded detector upgrade R&D projects
  - Innovation events, workshops, hackathons
  - Multidisciplinary master level student programs
- ...to prototype, test and iterate new forms of collaboration and co-creation in the areas of Research, Education and Technology – **RET**
- Monitored by IS Advisory Board
  - Prof. J. Birkinshaw (LBS) is an active, contributing member





# EXAMPLE: NEUTRINO PLATFORM PROJECTS

- Neutrino Platform (CENF) fosters fundamental research in the field of Neutrino Accelerator Physics
- CENF supports generic detector, neutrino beams R&D and large detector prototypes or demonstrators. It gives technical, financial and logistics support to approved projects
- Currently includes seven projects, including significant involvement in (Proto)Dyne
- Strong UK participation (53 institutes)
- CERN & IdeaSquare provides a facility for R&D on future technologies (HW and SW) and partner in several neutrino research programs





## EXAMPLE: EU-FUNDED ATTRACT PROJECT(S)

- ATTRACT funds 170 breakthrough projects in Detection & Imaging
  - 15 of them involving the NL universities, research labs, industry
- Provides funding for developing early-stage ideas and prototypes
- Focuses on high innovation with potential outside research
- Engages with CBI-like student activities, seeking for unforeseen entrepreneurial opportunities for the young
  - Strong collaboration with RCA (some 400 students per year)
- Purpose is to create a new innovation ecosystem in Europe
- ATTRACT is coordinated by CERN (IdeaSquare)



Challenge  
Based  
Innovation

## EXAMPLE: MASTER-LEVEL STUDENT COURSE

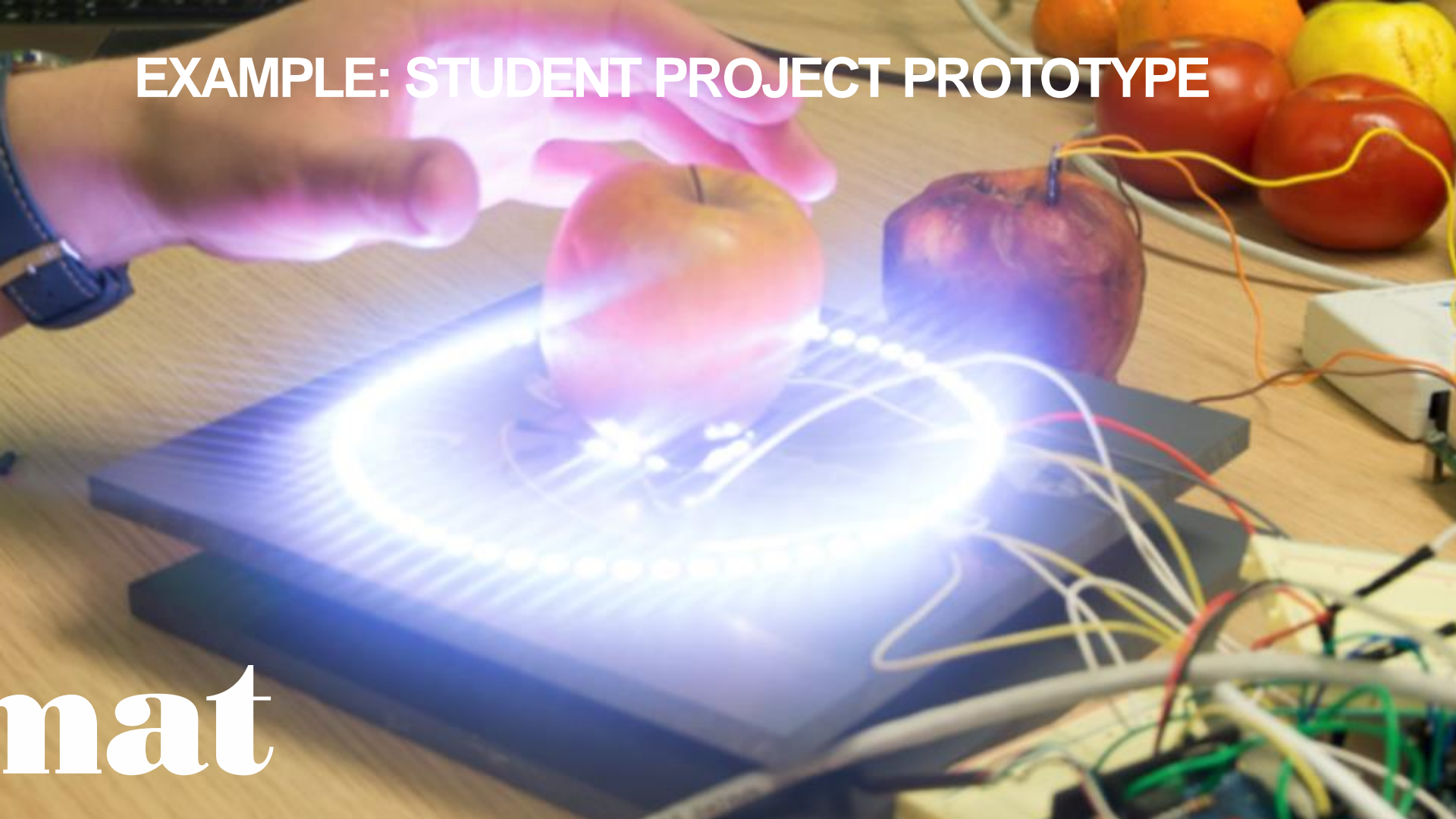
- Challenge Based Innovation (CBI) is 5-6 month MSc-level specialization course for product and service development, run by participating universities from 8 countries around the world
- Over 600 students have participated with more than 100 conceptual prototypes produced, contributing to UN Sustainable Development Goals
- In the course, multidisciplinary student teams learn how to apply Design Thinking – process for new product/service development; engaging with CERN researchers who act as technological coaches in the process
- “Work extremely hard, learn and have fun!”
- “Fail fast and often to succeed sooner”
- Dedicated version created for RCA («Grand Challenges»)

# EXAMPLE: STUDENT PROJECT PROTOTYPE



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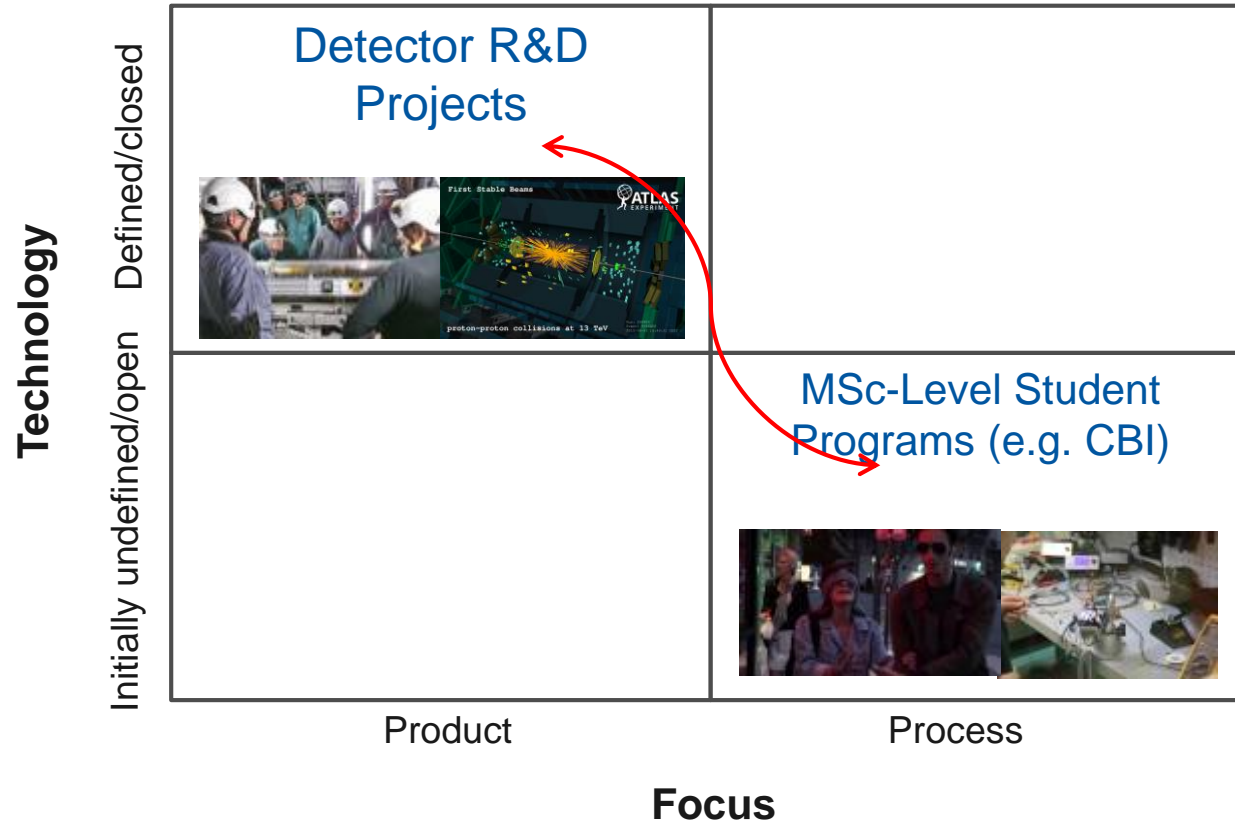




# IDEASQUARE OUTPUT

- Creating next-generation of young scientists and innovators
- Accelerating flow of ideas and time from discovery to application
- More effective sharing of ideas, spaces and resources across projects at CERN and outside
- New results in socio-economic research about experimental innovation processes (IdeaSquare Journal of Experimental Innovation, <http://cij-ei.web.cern.ch/cij-ei/>)
- Making societal value of basic research more visible and tangible
- New insights for ATTRACT ([www.attract-eu.com](http://www.attract-eu.com))

# WHAT IS THE MOST INTERESTING LINK FOR NEW INNOVATION?



*All you need is*

~~..Love~~ PHYSICS

*..Design*

*..Business*

*..and Engineering.*

Questions? Comments?

Contact information:

Email

Skype

Let's have a cup of coffee and make it happen!



Idea<sup>s</sup>