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Development and Innovation (IPT-DI)

**CERN Ideasquare**  
IPPOG, November 2, 2017

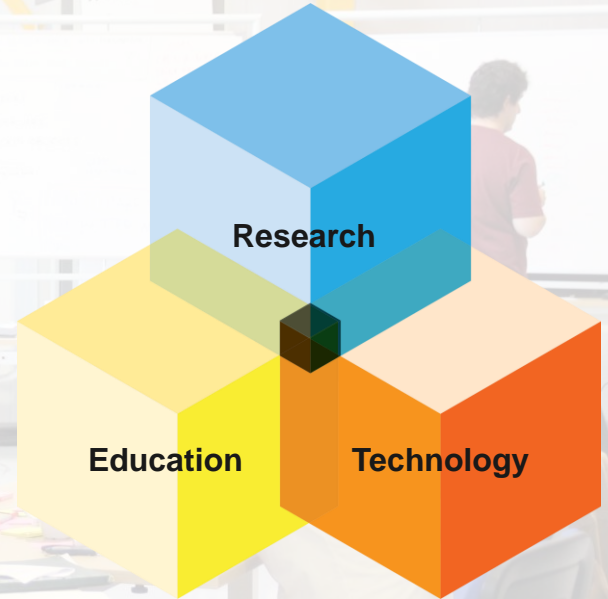


# IDEASQUARE IN BRIEF

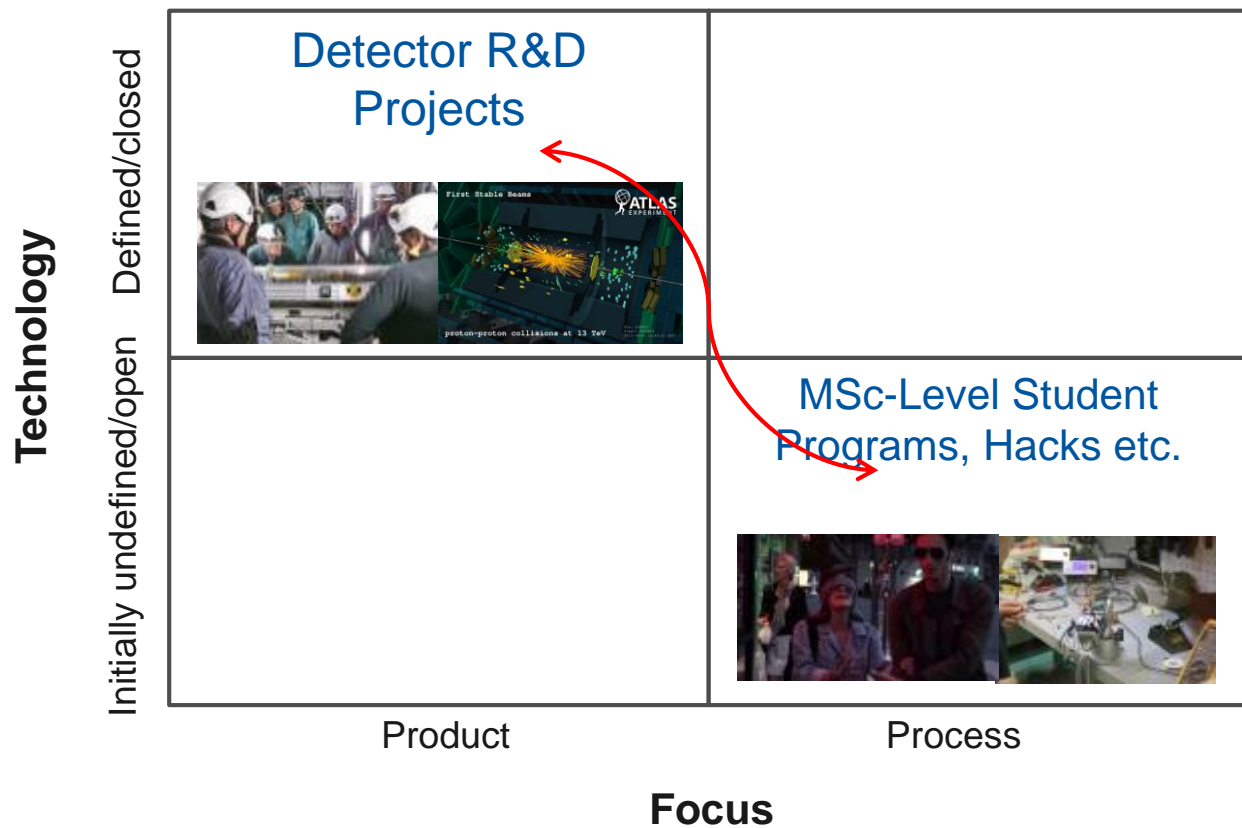
“Ideasquare is an Experiment that brings together researchers, engineers, industrial partners and cross-disciplinary student teams to work together on detector upgrade R&D technologies. The dual purpose is to co-develop new technologies for research purposes and create a fruitful environment for socially and globally relevant new product ideas and innovation.”

# IDEASQUARE IS

- Project with a dedicated building, hosting:
  - 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**

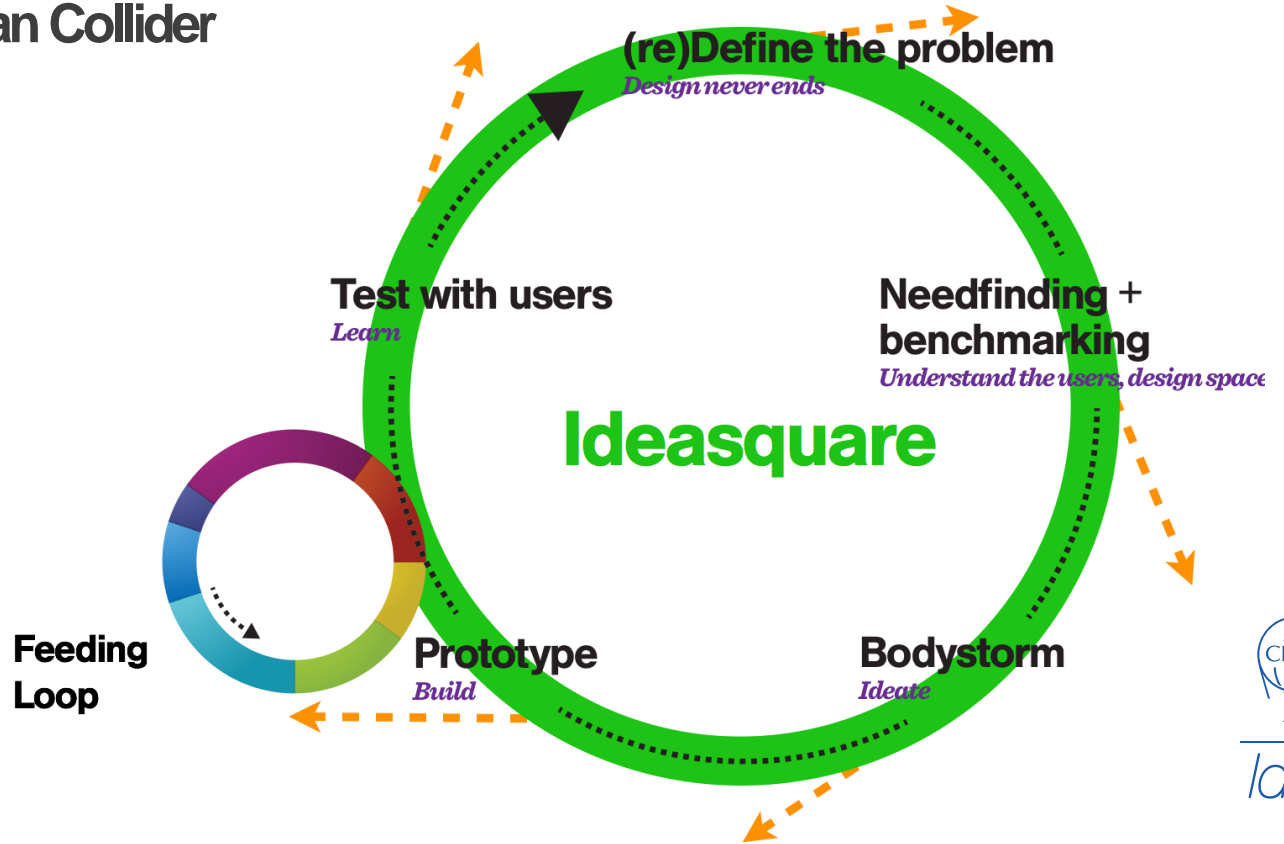


# WHAT IS THE MOST INTERESTING LINK FOR NEW INNOVATION?



# IDEASQUARE

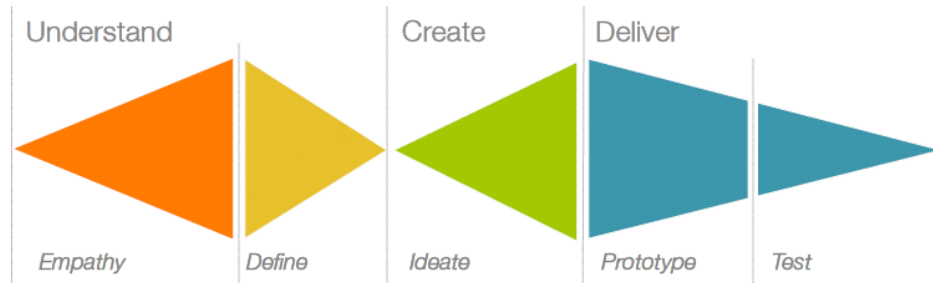
The Large Human Collider



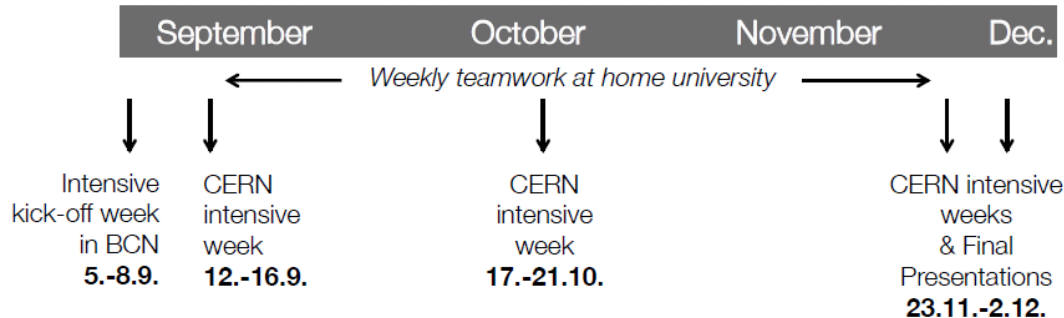
Idea<sup>s</sup>

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

CBI TIME LINE: SEPTEMBER 5<sup>TH</sup> – DECEMBER 2<sup>ND</sup>



Design Thinking



# EXAMPLES OF STUDENT PROJECTS



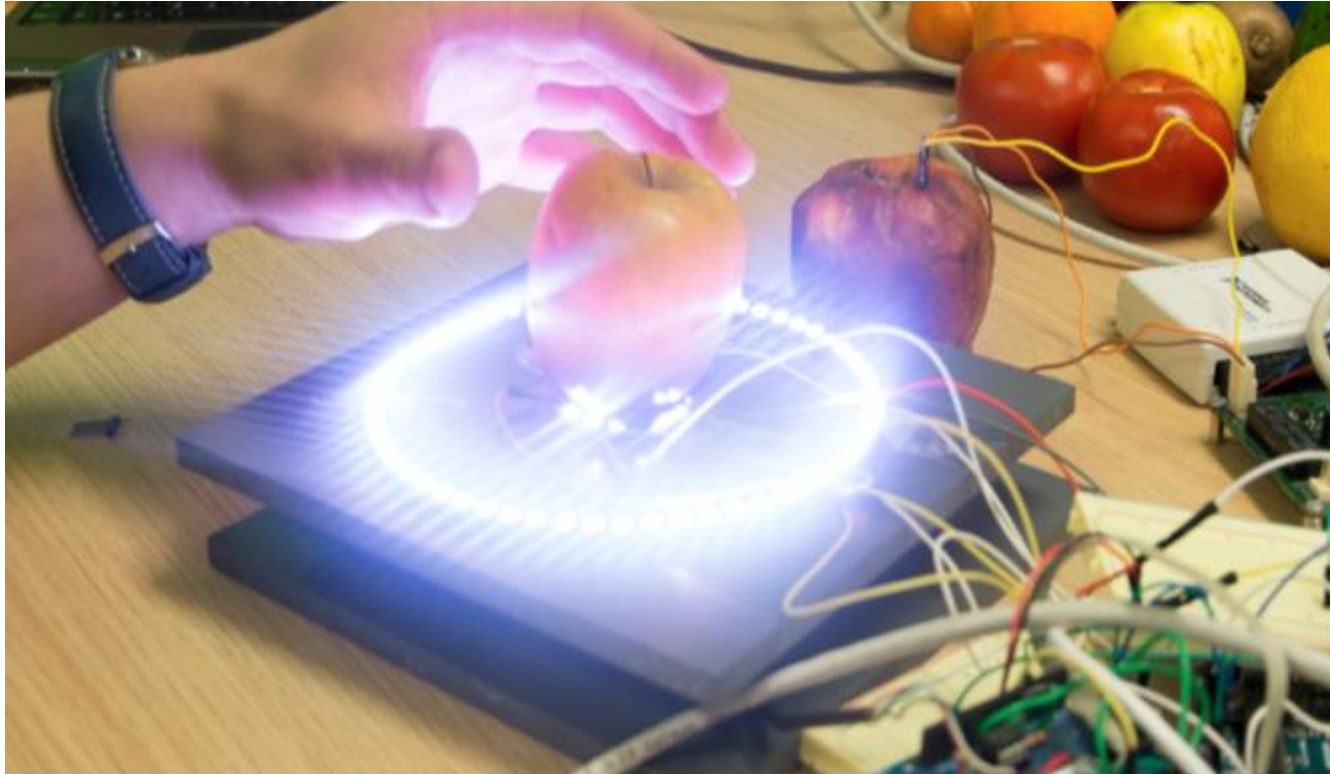
# PREVENTING HIP INJURY FROM INVOLUNTARY FALL



Idea<sup>s</sup>



# YOUR FRIDGE SENDING A MESSAGE WHEN FOOD IS RIPE TO EAT *FOR YOU*



# HELPING YOUNG AUTISTIC CHILDREN TO COMMUNICATE

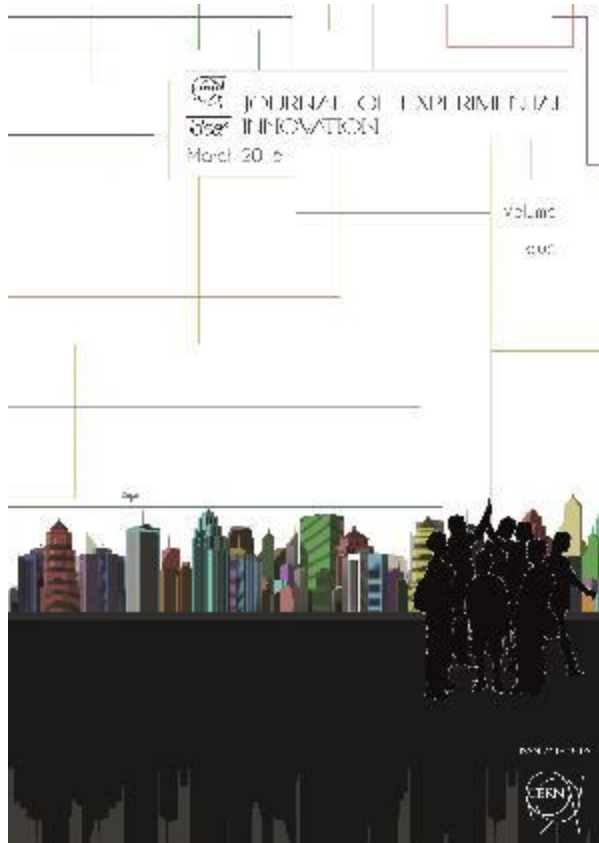
IV.  
Solution

[https://www.youtube.com/watch?v=w5S8vSHH\\_XA](https://www.youtube.com/watch?v=w5S8vSHH_XA)

# IDEASQUARE OUTPUT

- Education of future scientists and innovators
- Creating talent for *both* basic research and entrepreneurship (iterative prototyping, new business concepts)
- Sharing of ideas, spaces and resources improved in and between versatile development projects in a high-tech environment
- Societal value from basic research
- Shared experimental data on innovation processes (CIJ)
- Demonstrator for ATTRACT ([www.attract-eu.org](http://www.attract-eu.org)) to create local entrepreneurial ecosystems using centers like CERN as engines of innovation

# SOCIO-ECONOMIC RESEARCH ON EXPERIMENTAL INNOVATION



## IdeaSquare Journal of Experimental Innovation

- Online, cited (Reuters) open access journal
- Targeted for research on experimental innovation processes and methodologies, (to be) tested or used at IdeaSquare
- Short, peer-reviewed articles to communicate key results
- Annual workshops to work further on published articles for special issues in well-established journals
- First issue in Autumn, 2016
- Editor-in-chief: Prof. Saku Makinen (TTY)
- Senior Editors: Prof. Julian Birkinshaw (LBS), Roberto Verganti (Milan)

<http://cij-ei.web.cern.ch/cij-ei/>



Idea<sup>s</sup>

# HOW TO GET INVOLVED WITH IDEASQUARE?

- Through physics experiments at CERN doing detector R&D that have some connection with society (e.g. non-physics student initiatives)
  - e.g. ATTRACT
- Proposing and participating in initiatives to bring together engineering, business management and design students (and their professors) who ask IdeaSquare to host them (e.g. CBI)
- Participating in new events and initiatives (e.g. hackathons, see Port)
- Doing research (e.g. PhD) together with us about innovation processes (CJI)
  - [www.cern.ch/ideasquare](http://www.cern.ch/ideasquare)

*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>