

CERN Ideasquare

INTRODUCTION

IdeaSquare International Advisory Board, January 30, 2017



IDEASQUARE IN BRIEF

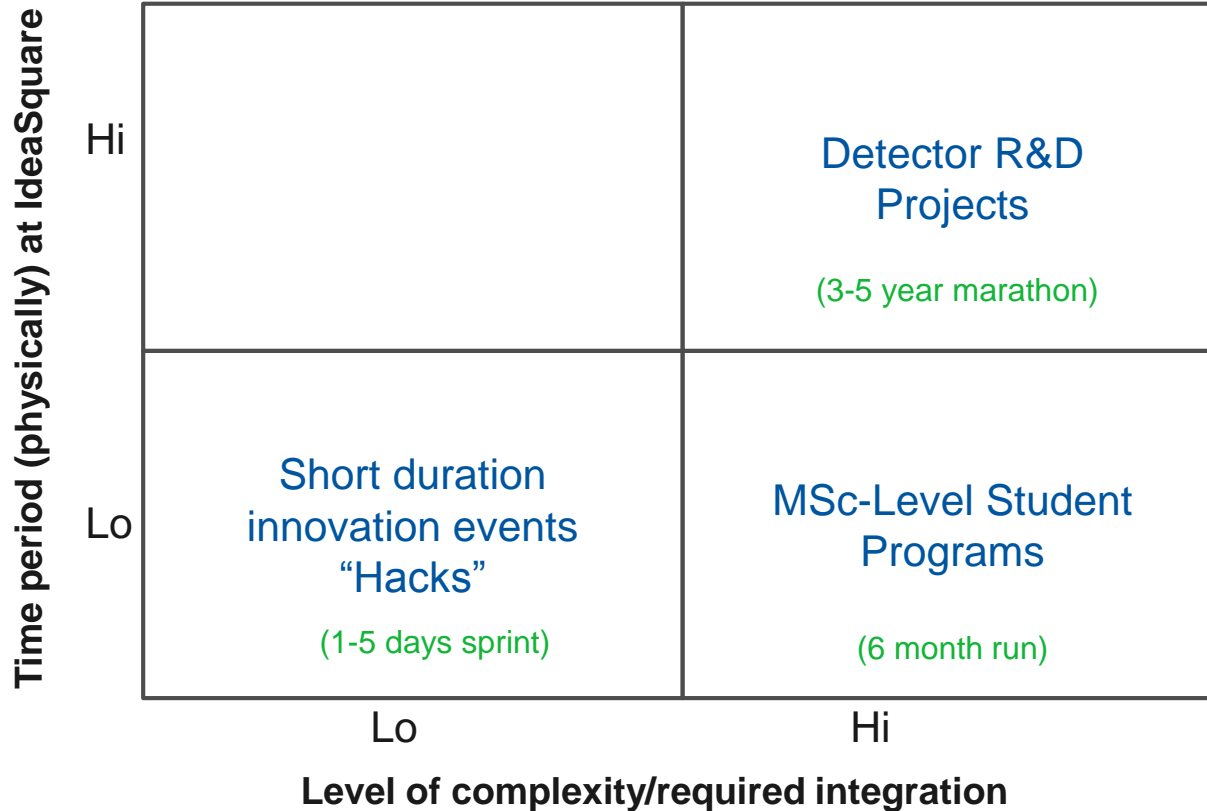
“Ideasquare is an Experiment that brings together physicists, engineers, industrial partners, early-stage researchers and cross-disciplinary teams of students to work together on detector upgrade R&D technologies. The purpose is to co-develop new technologies for research purposes, and at the same time,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

IDEASQUARE IS

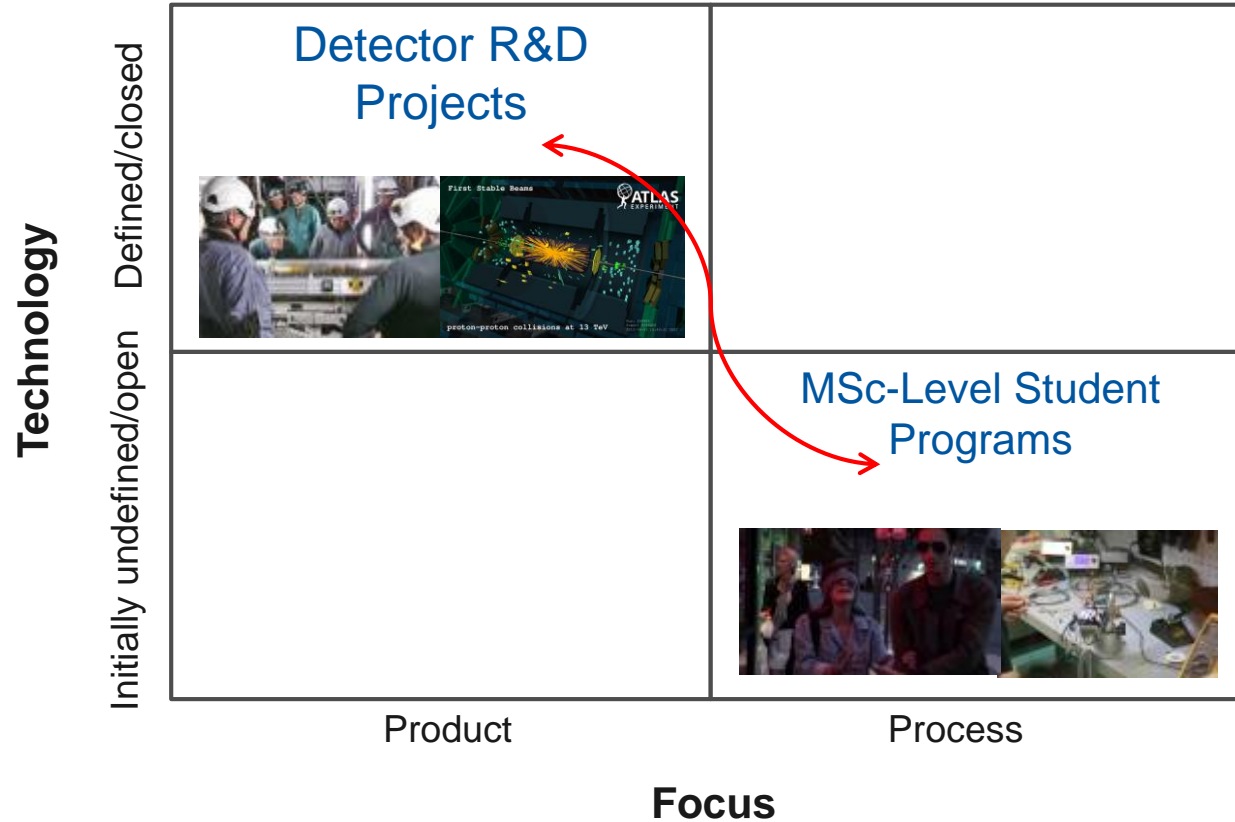
- Project with a dedicated building, hosting:
 - EU-funded detector upgrade R&D projects
 - Innovation events, workshops, hackathons
 - Multidisciplinary master level student programs
- ...to prototype, test and iterate new forms of collaboration and co-creation in the areas of Research, Education and Technology - **RET**



HOW DO THESE PROJECTS DIFFER?



WHAT IS THE MOST INTERESTING LINK FOR NEW INNOVATION?

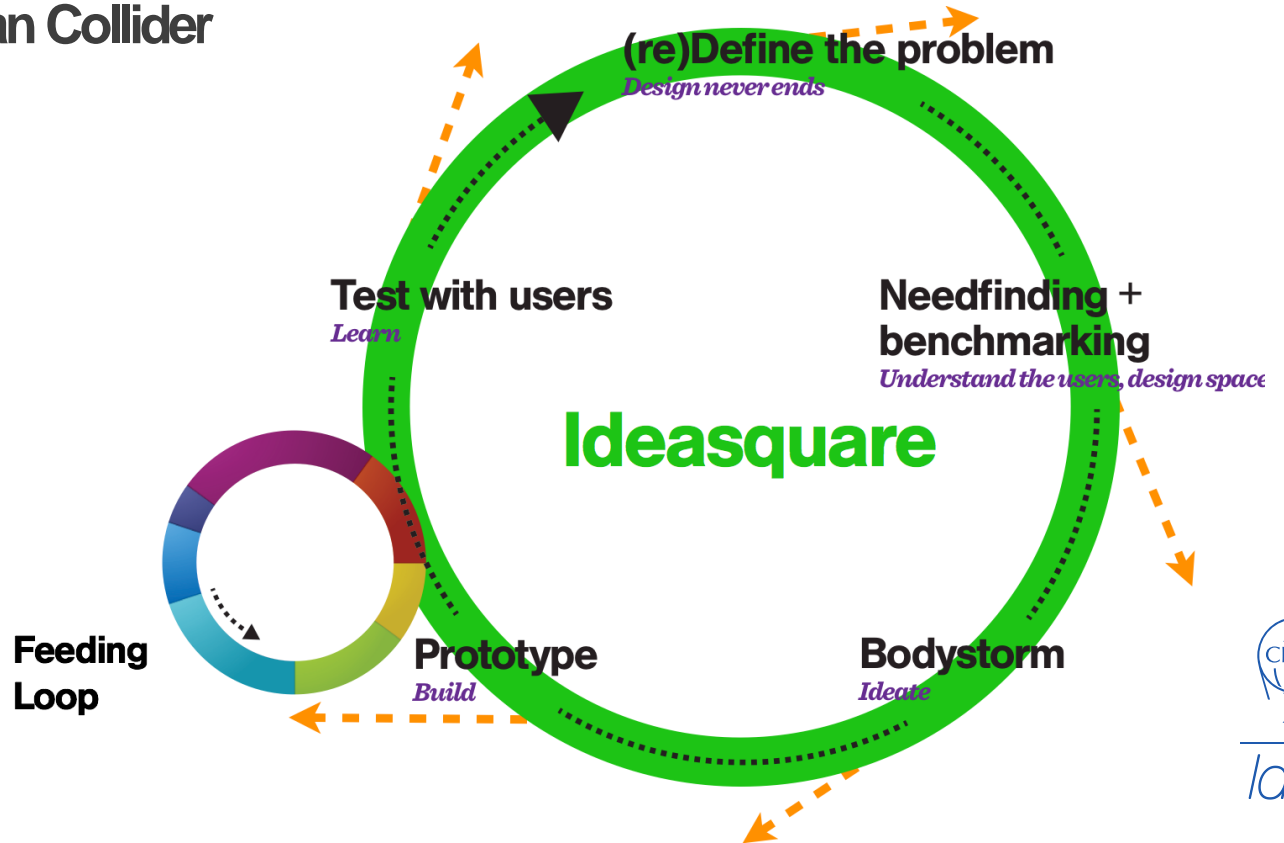


HOW DOES IT WORK?

- Where is the magic? Bringing different people together. Empowering them. **Putting people first.**
 1. Information doesn't radiate (communication deprived at 4m distance, goes to nearly zero at 20m) (TJ Allen, 1976)
 2. Single disciplinary teams do not radiate (single mindset leads thus far, but not beyond the rainbow)
- People from different backgrounds are amazed by each others skills... but only when they see them!
- Innovation is 1% about ideas, 99% execution & iteration: finding ways in which people can collaborate and co-create efficiently

IDEASQUARE

The Small Human Collider



IDEASQUARE EXPECTED OUTPUT

- Experiments, projects = measured outcomes in development with in-situ research
- Communication, sharing ideas, spaces and resources improved in and between advanced technology development projects
- The counter-intuitive, controlled addition of variation, diversity, connections, ideas that are realised as prototypes to accelerate technology development
- Time span from discovery to application compacted
- Societal value of basic research more visible and tangible
- Education of future talent capable of working in basic research, commercial product & service development, or both
- Demonstrator for ATTRACT (= Large Human Collider)

Key principles of management experimentation

- 1. Focus on causes, not symptoms
- 2. Make your hypotheses explicit
- 3. Limit the scope of your experiment
- 4. Run the new in parallel with the old
- 5. Start at home
- 6. Use volunteers, if possible
- 7. Iterate

Courtesy of Prof. Julian Birkinshaw LBS



Idea^s

IDEASQUARE IPR APPROACH

- Collaboration is conducted in an Open Innovation-spirit, meaning:
- All research papers and publications will be made publicly available (but can be delayed if deemed necessary)
- Students, both master and PhD-level can use/refer to the results of their assigned projects (e.g. as an example in their CV portfolio)
- CERN will not patent foreground coming out of EC-funded projects (within IdeaSquare framework)
- CERN will not sign any NDA's within EC-funded projects
- The related HEP institutes that have signed a MoU with CERN (e.g. ATLAS, CMS) adhere to the above CERN policies

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^s