Presenter name
June 27, 2015

# CERN Ideasquare
INTRODUCTION

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 or Research, Education and Technology - RET
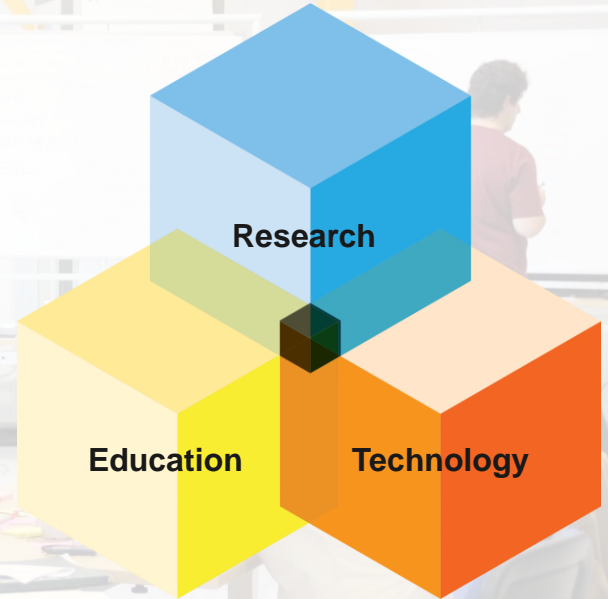
EXAMPLE: EU-FUNDED DETECTOR UPGRADE R&D PROJECT

EDUSAFE

- EDUSAFE is a 4-year Marie Curie ITN project

- Training for 10 Early Stage and 2 Experienced Researchers

- Focuses on research into the use of Virtual Reality (VR) and Augmented Reality (AR) during planned and emergency maintenance in extreme environments

- The result will be an integrated wearable VR/AR system (+control system) which can be implemented and tested as a prototype, using LHC at CERN as a test and demonstration platform

EXAMPLE: EU-FUNDED DETECTOR UPGRADE R&D PROJECT

- TALENT is a 4-year Marie Curie ITN

- Provides training for 14 Early Stage and 1 Experienced Researcher

- Focuses on piloting new state-of-the-art technologies on the new precision pixel detector: ATLAS Insertable B-Layer (IBL) and for future high precision tracking detectors

- The outcome will be to create the means to produce affordable high performance detector modules in European industry and thus answer to the forthcoming needs of research infrastructures and industry application demand

EXAMPLE: MASTER-LEVEL STUDENT COURSE

Challenge Based Innovation

- Challenge Based Innovation (CBI) is 6 month MSc-level specialization course for product and service development, run by participating universities from (currently) 8 countries around the world

- Two pilot runs completed, 8 final proof-of-concept prototypes produced

- In the course, multidisciplinary student teams learn how to apply Design Thinking – process for new product/service development; CERN researchers act as technological coaches in the process

- "Work extremely hard, learn and have fun!"

- "Fail fast and often to succeed sooner"
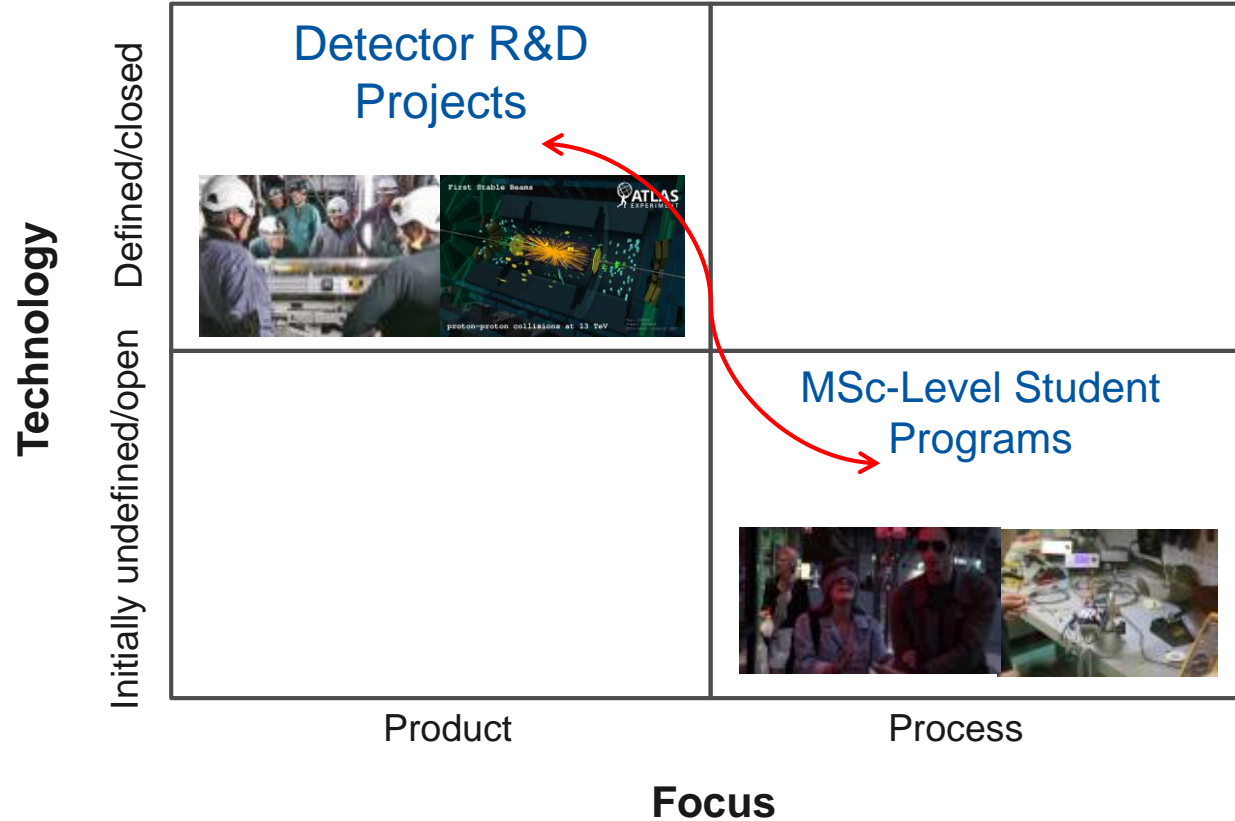
EXAMPLE: STUDENT PROJECT PROTOTYPE
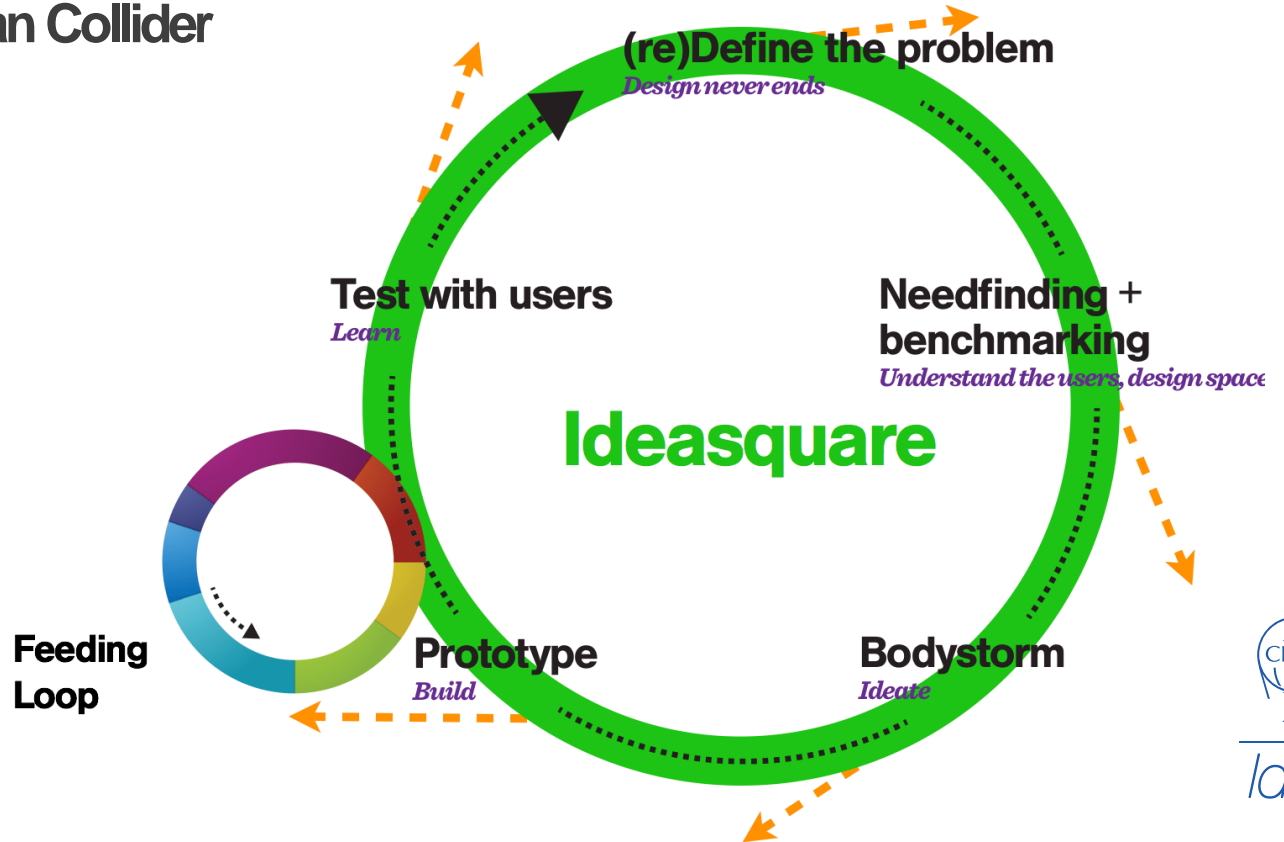
EXAMPLE: STUDENT PROJECT PROTOTYPE

mat
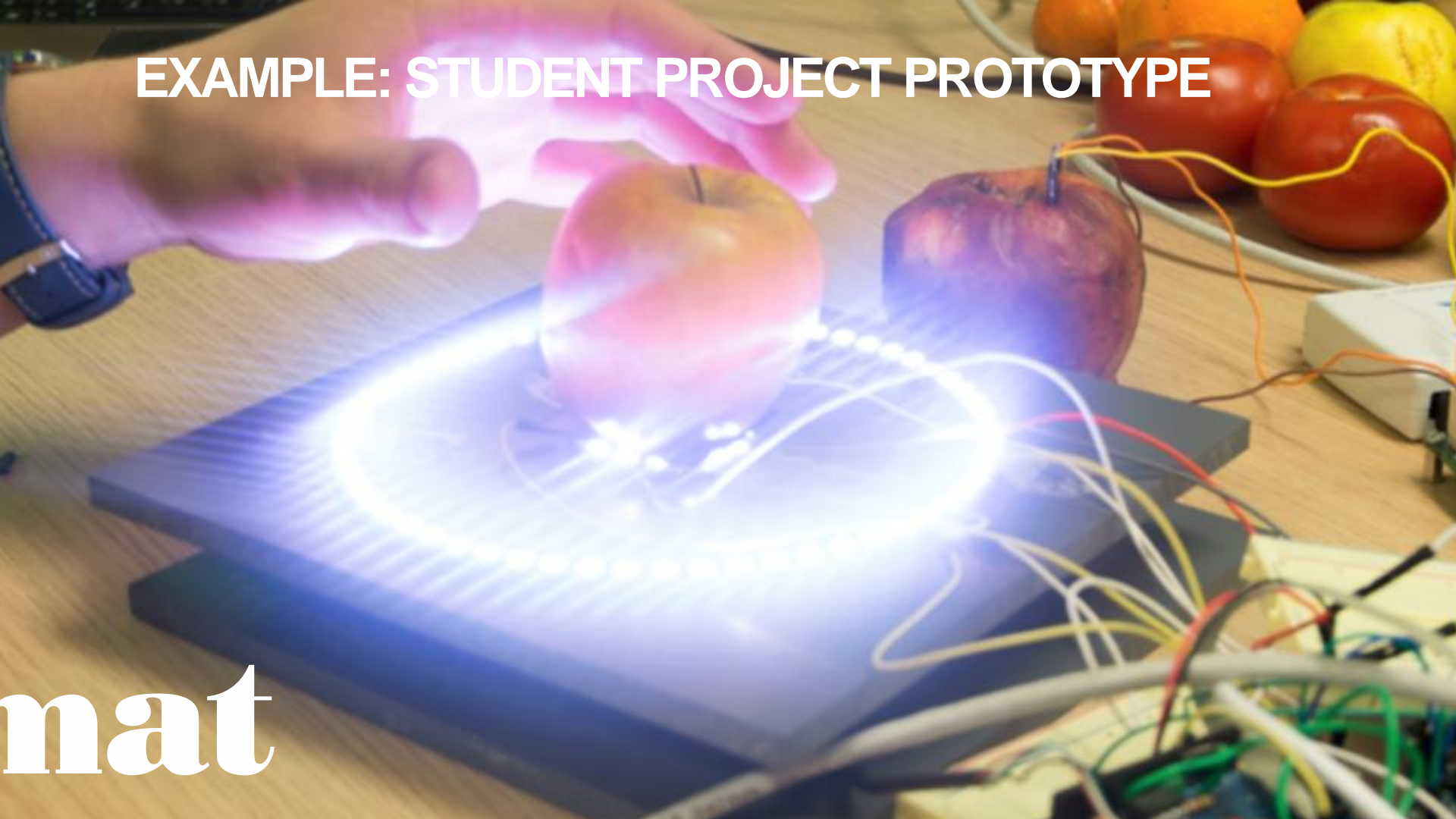
WHAT IS THE MOST INTERESTING LINK FOR NEW INNOVATION?

IDEASQUARE EXPECTED OUTPUT

- Pilot project = outcomes and measures for them are 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 (www.attract-eu.org)

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!

CERN

Idea^s