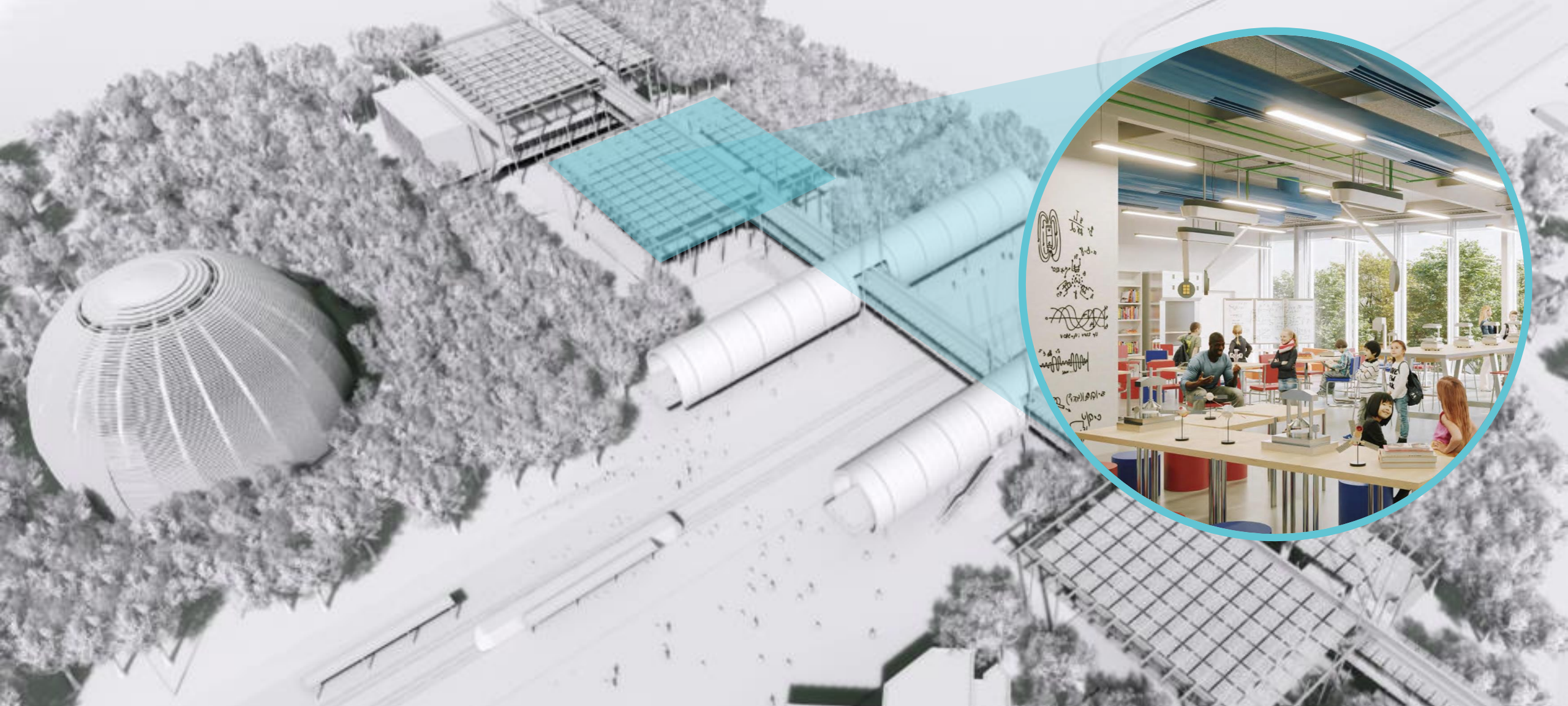




# Science Gateway Education Labs & Science Shows

Julia Woithe & Sascha Schmeling | [sg-education-team@cern.ch](mailto:sg-education-team@cern.ch)

Science Gateway Town Hall Meeting | 22 April 2021

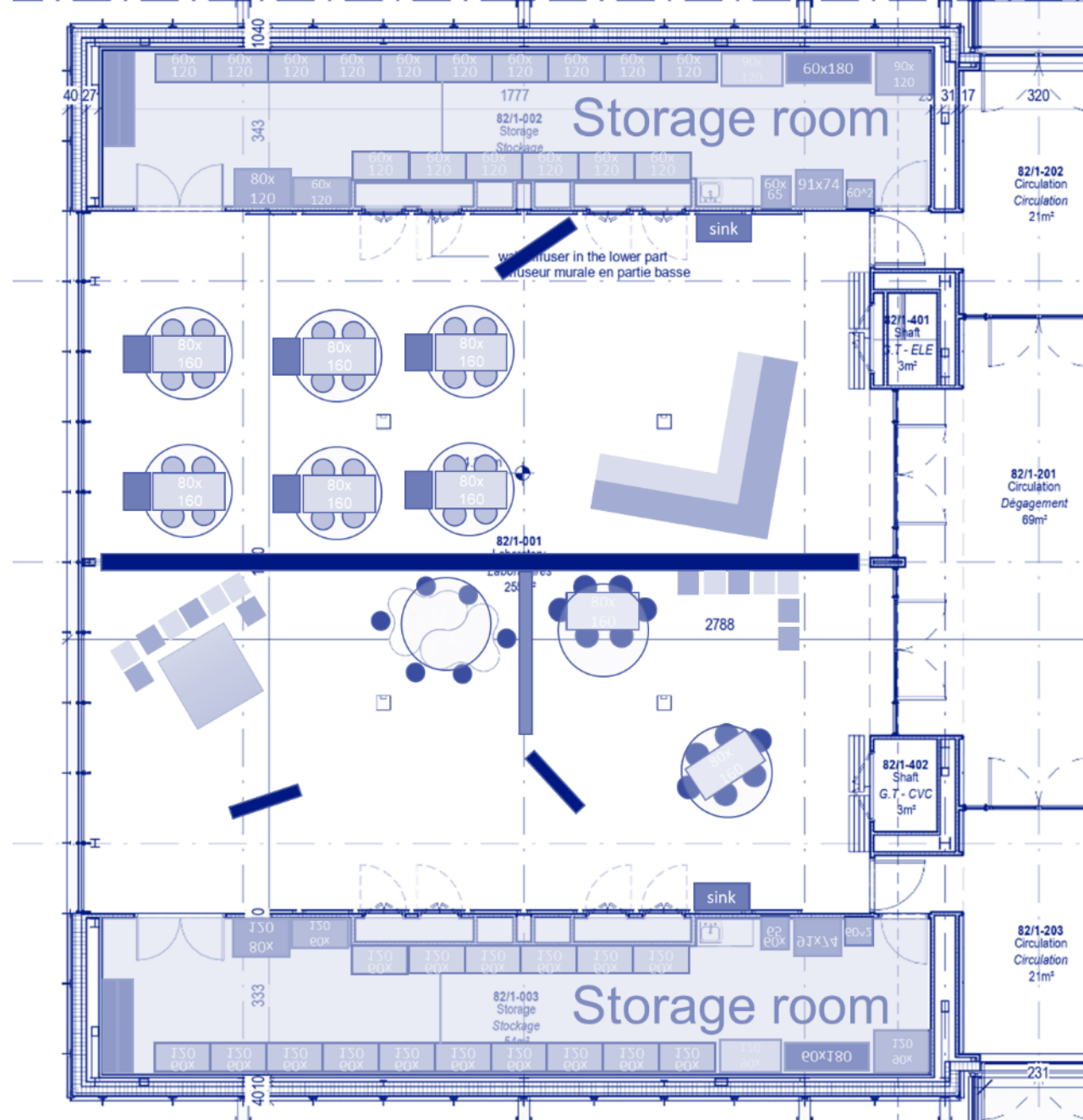


# Education Labs – “Discover your inner scientist!”



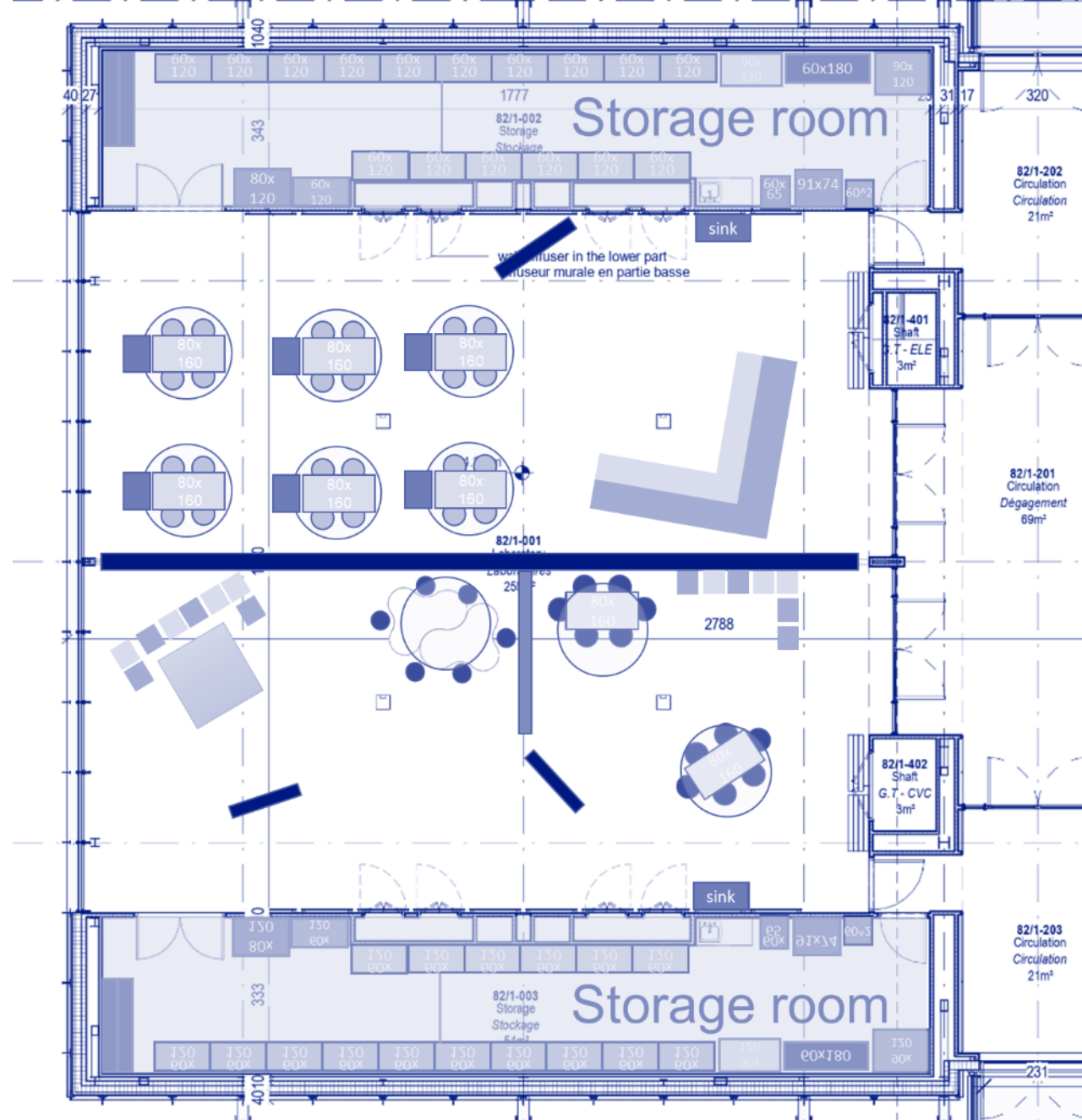
# Education Labs layout

- 255 m<sup>2</sup> lab space, max. 48 learners
- Flexible division into 2 labs
- Modular space



# Education Labs layout

- 255 m<sup>2</sup> lab space, max. 48 learners
- Flexible division into 2 labs
- Modular space
- Introduction & discussion areas with interactive smartboards
- Furniture adaptable to age groups and different activities



# Education Labs

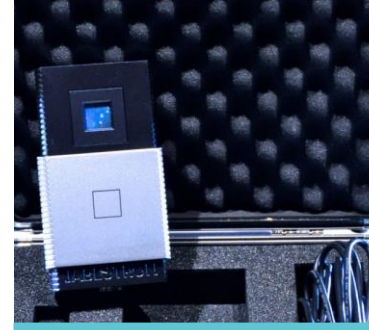
## content

- **Linked to the science, the discoveries, and the technologies at CERN**

- **Kick-off workshop, January 2020**



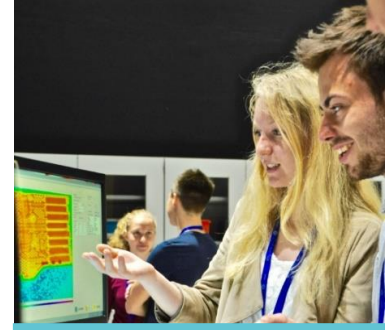
- **Well-established and new education activities**



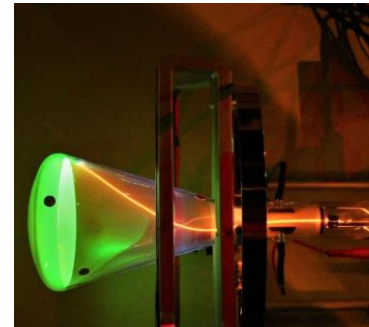
Detection



Computing & Robotics



Engineering & Technology



Acceleration



Vacuum & Cryogenics



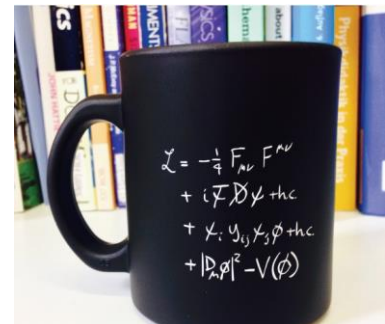
Safety



Magnets



Applications



Theory

# Education Labs

## goals

- **Inspiring the next generation**
- **Fostering positive attitudes towards science and science careers**  
science interest & curiosity, self-beliefs, image of science and scientists
- **Promoting the nature and value of fundamental science**



# Education Labs

## potential

- Improving students' self-beliefs and interest in physics
- Closing the gender gap
- Promoting students' understanding of particle physics

→ **Most important success factor:**  
**Volunteers from CERN's scientific community**





# From S'Cool LAB to Science Gateway Labs

## S'Cool LAB



## Science Gateway Education Labs

### Target group:

school groups (14-19 years), teachers

### Topics:

particle physics and related technologies

**Online:** hands-on activities introducing particle physics and related technologies

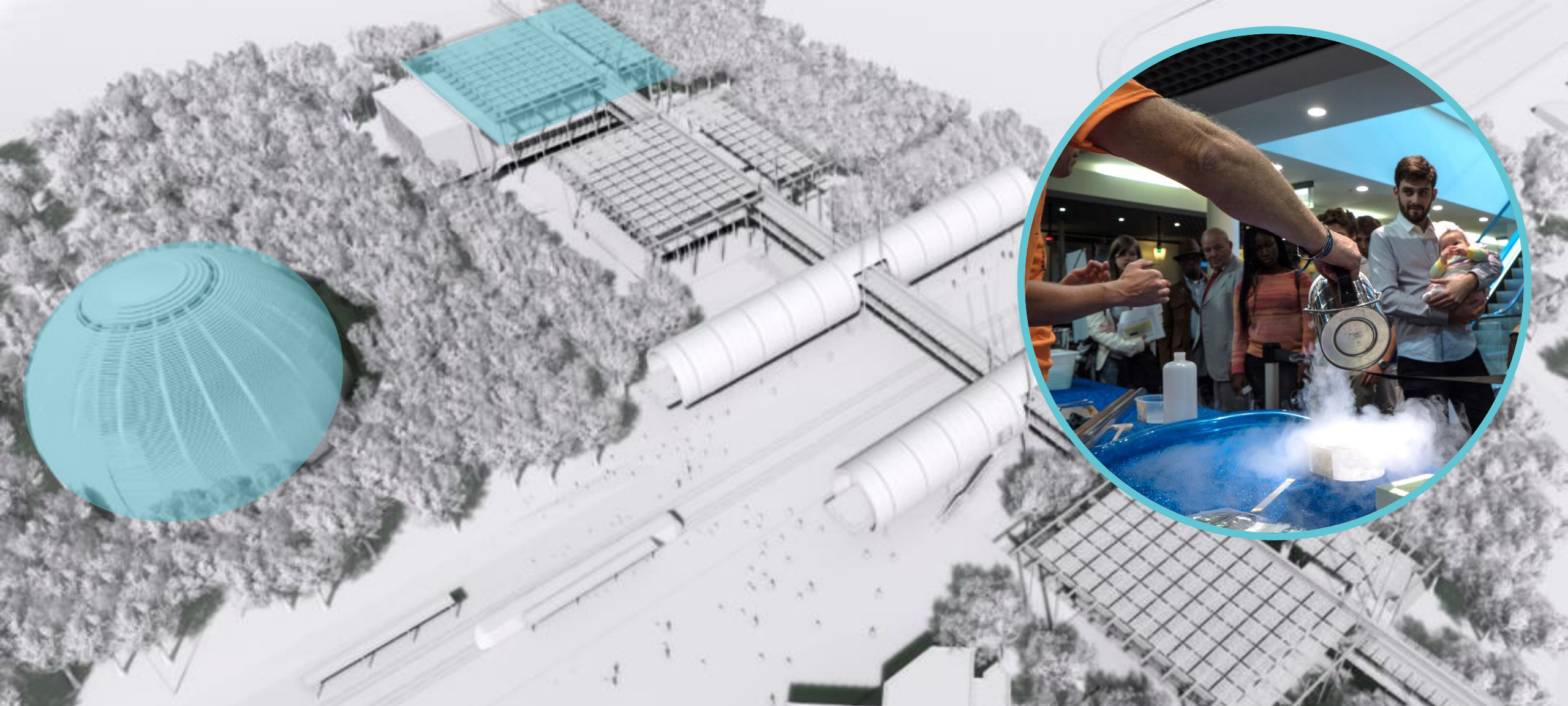
**Capacity:** 1 lab, 24 students

+ families, individual visitors (5-105+ years)

+ scientific investigations, science, discoveries, technologies, and scientists

+ educational material for students and educators

→ 2 labs, 24 students per lab



# Science Shows

# Science Shows

## at CERN

- Introducing scientific topics in a theatre-like style
- Showcasing awe-inspiring experiments & phenomena
- Popular educational offer, both onsite and online



# Science Shows

## in Science Gateway



Integral part of the visitor experience

30-45 minutes of fun and learning



Presented by volunteers

# Science Shows

## content

- **Kick-off workshop to drive the content development**



- **Integration of Science Shows into the overall visitor experience of Science Gateway through thematic storylines**



Journey of a proton



Information technology



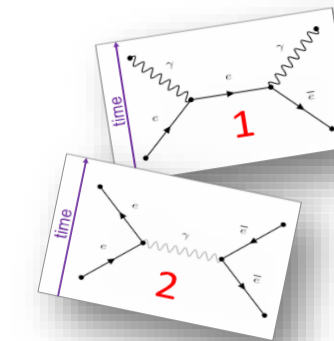
Particles in space



Seeing the invisible



Applications



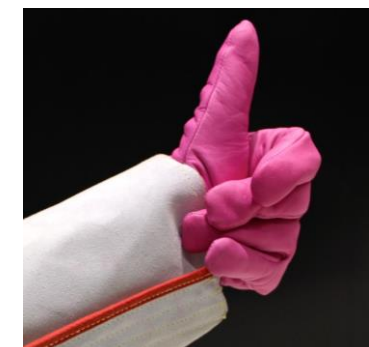
Theory vs experiment



The role of models



Advancing modern science



Other

# We need you!

- To contribute with your ideas & expertise to the content development process
- To perform in science shows
- To facilitate activities in the labs
- To promote our offers

