



# Update: Science Gateway Education

# CERN Science Gateway progress (June 2022)





# Science Gateway Education

## Labs

Discover your inner scientist



## Science Shows

Explore the stories of discoveries



## Online Learning

Engage online to find out more



# Labs



# Update

- **LEGO Foundation, working on implementing Learning through Play elements + evaluation of activities in lab workshops**
- **Testing new activities with very young audiences (4-6 year olds) with CERN's kindergarten**
- **Ordering new equipment**

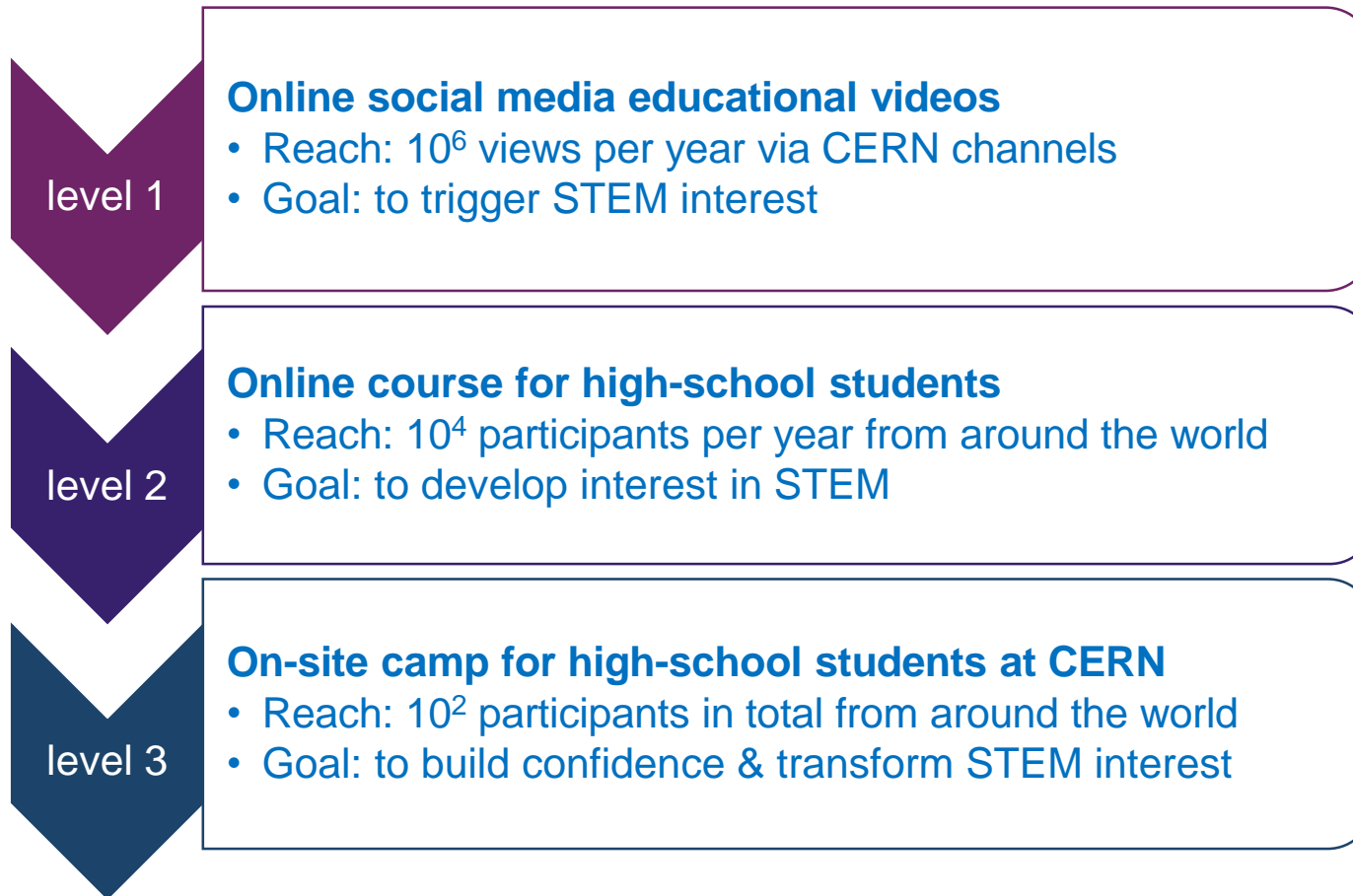


# CERN-Solvay Education Programme



Guillaume Durey

# The Solvay Education Programme



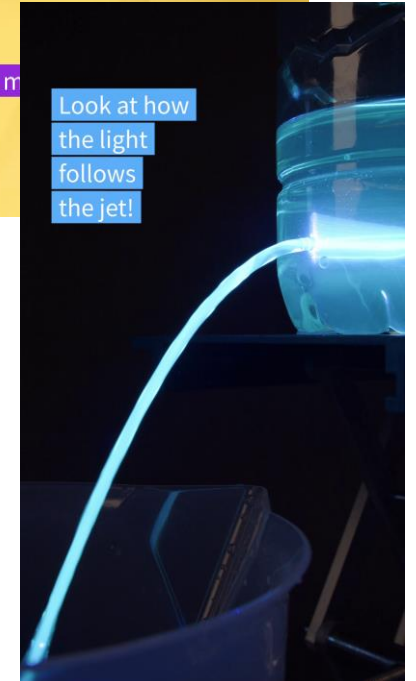
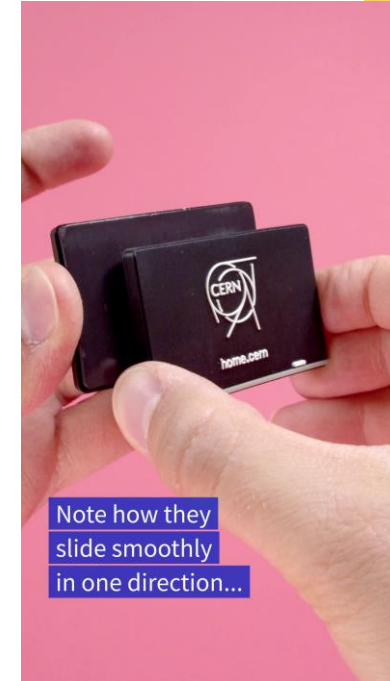
Progress beyond





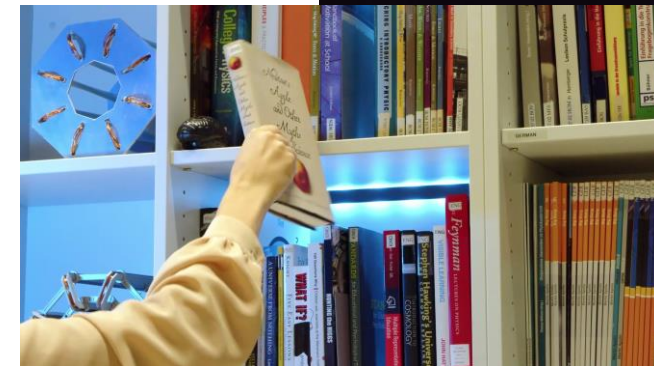
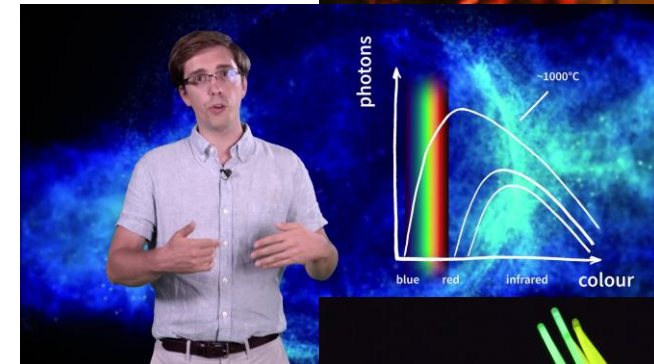
# Level 1: Short-form educational videos

- Tiktok-style short videos, first-person view, vivid colors, released on all of CERN's SM platforms
- Making a connection between a simple « do-it-yourself » experiment and the research or technologies of CERN to make them more accessible
- Build a hovercraft which glides like the CMS detector  
Get a feel for multipolar magnets with fridge magnets  
Make an optical fiber with a leaky bottle
- A dozen videos a year  
Accompanied by online supporting information for educators



# Level 2: Long-form explainer videos

- Online course for high-school students aged 14-19 made of 15-20 min long explainer videos
- Explaining advanced high-school / early undergraduate topics in an accessible way to provide a physics background relevant for the technologies and the science at CERN
- Luminescence, electromagnetism, superconductivity, radioactivity...
- Six interactive videos a year  
Self-grading quiz and certificate  
Successful participation required for level 3



# Film studios!



# Level 3: On-site camp for highschoolers

- **Bringing a selection of motivated high-school students aged 16-19 from around the world to CERN**
- **7-day camp for 30 students, once a year, first camp in Oct 2023, applications in Jan**
- **Lectures, site visits, social events & work with CERN scientists on modern research topics in hands-on working group sessions**



# Movie time!

A balloon hovercraft & the CMS detector?!



[youtube.com/CERN](https://www.youtube.com/CERN)



[www.solvay-education-programme.web.cern.ch](http://www.solvay-education-programme.web.cern.ch)



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# Let's discuss!

# Science Shows



Anja Kranjc Horvat

# Science Shows

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





# Science Shows



**30-45 minutes of fun and learning**

**2-3 times per day,  
6 days per week**

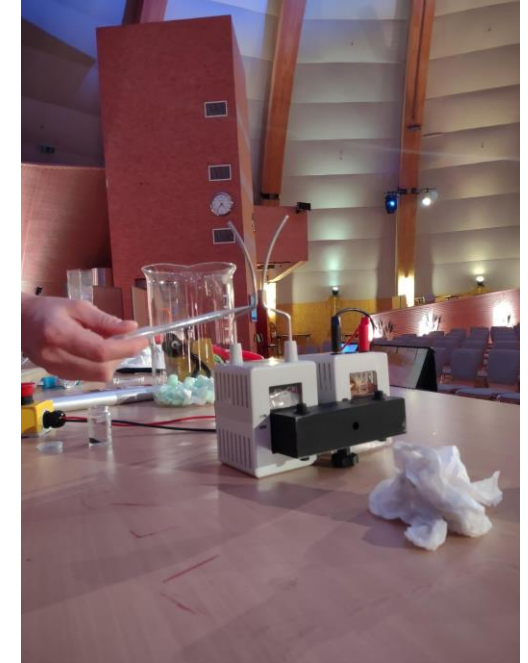


**Presented by  
CERN volunteers**

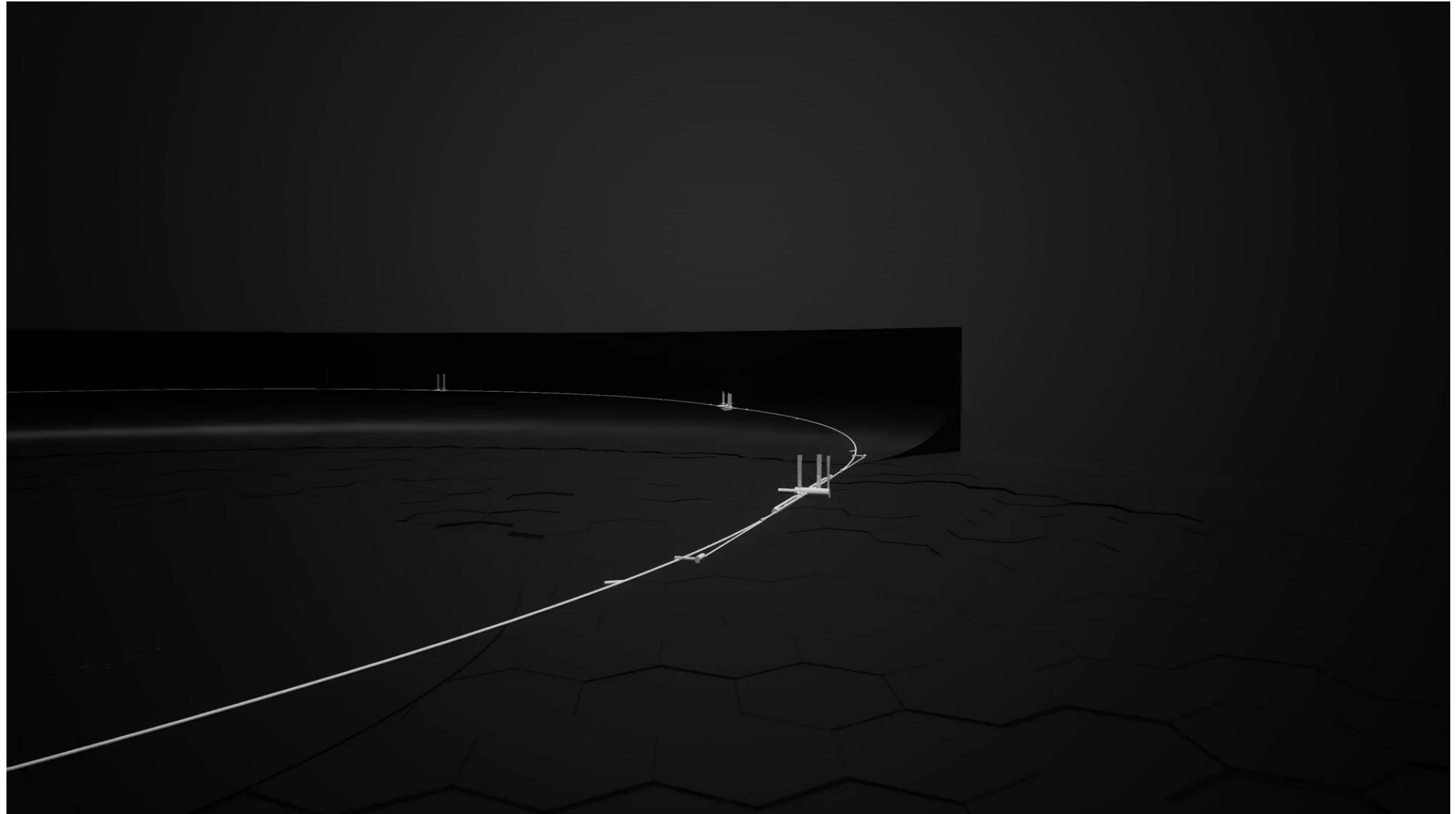


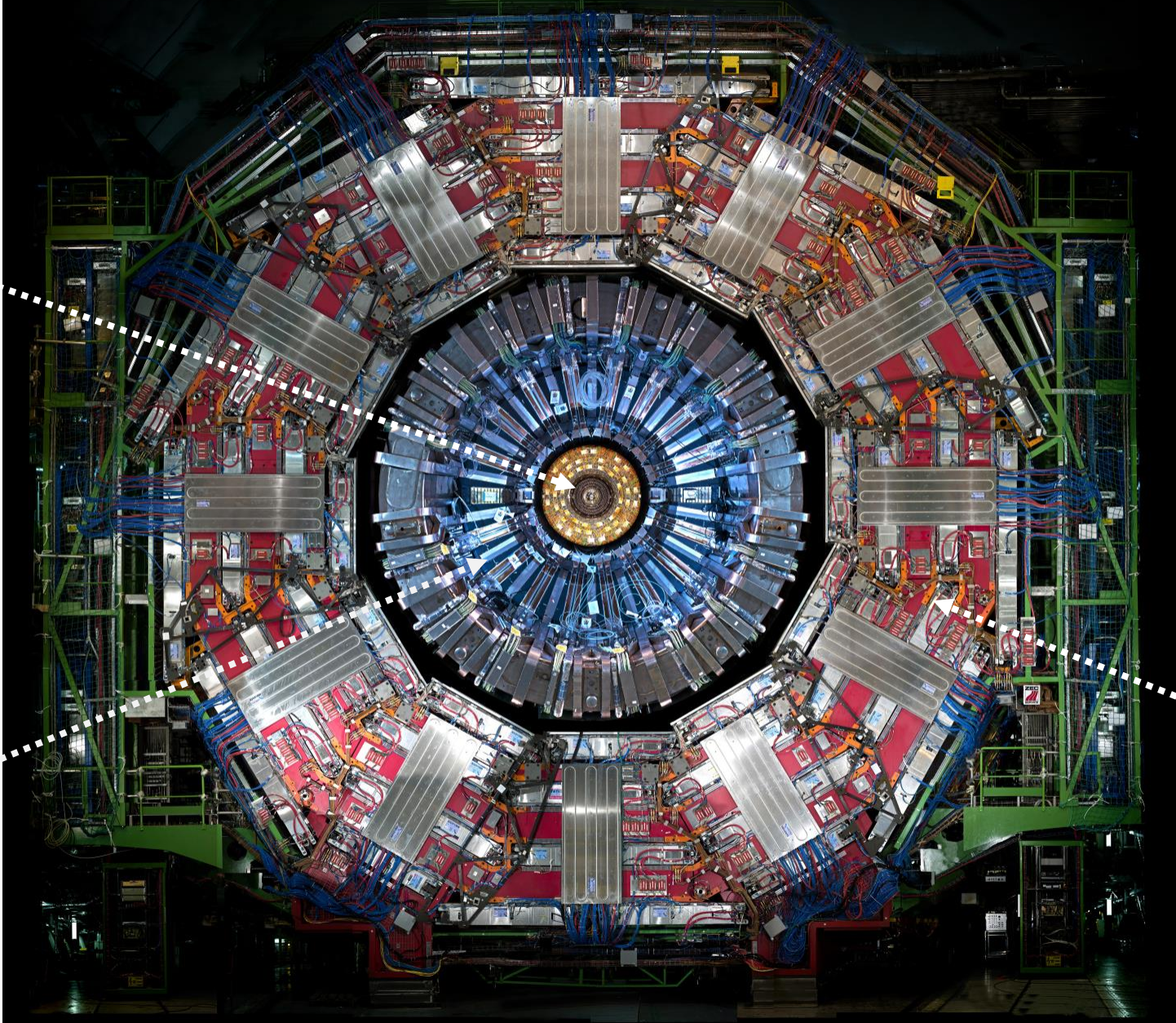
# Science Shows: Current status

- **Two shows in testing phase:**
  - Seeing the invisible
  - Seize the Data!
- **Two shows in update/development:**
  - (existing) Fun with Physics
  - Electromagnetism
- **Two more shows planned:**
  - Quantum physics
  - Open questions (for very young groups)



# Science Shows: Short Example





# Thanks for your attention!

Let's discuss

