CERN

Outreach in the International Context

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CERN
Education, Communication, and Outreach

Activities
Global Constituency Engagement

Creation of
- immersive exhibitions
- interactive visits points

Universe of Particles

SM18

SynchroCyclotron

CERN Control Centre

Data Centre

Universe of Particles
Accelerating Science
We are all 14,000,000,000,000 years old!
Collide@CERN – 3 months residency • since 2011
- explores elements even more elusive than the Higgs Boson: human ingenuity, creativity, and imagination
- competitive open calls - fully funded residency

Accelerate@CERN – 1 month residency • since 2014
- two artists from two different countries
- in cooperation with partner countries (e.g. Austria, Taiwan, Lithuania, UAE)

Visiting Artists programme – 1-2 days CERN visit
- up to 12 artists are invited on self-funded tours
- programme fully booked until 2017
Various activities for locals, regionals, and internationals at the CERN site. Thanks for your support!
“There is nothing more enriching and gratifying than learning.” [Fabiola Gianotti, CERN Director-General]

Every year, CERN offers various professional development programmes for teachers to keep up-to-date with the latest developments in particle physics and related areas, and experience a dynamic, international research environment. All programmes are facilitated by experts in the field of high energy physics and include an extensive lecture and visit itinerary.

Furthermore, CERN’s teacher programmes enable you to meet with teaching colleagues from your country or from all around the World. We offer teacher programmes in English or in one of the national languages of CERN Member States, lasting between 3 days and 3 weeks. Take part!

National Teacher Programmes & International Teacher Programmes
National Teacher Programmes in the language of the country | 4-6 days
focus on visits and lectures

*International Teacher Weeks in English* | 2 weeks
focus on visits and lectures

International Teacher Programme “HST” in English | 3 weeks
focus on collaboration
What is S’Cool LAB?
HANDS-ON PARTICLE PHYSICS LEARNING LABORATORY

For high-school students and teachers
International audience from more than 20 countries
Independent experimentation in small groups
200 m² MODULAR LABORATORY SPACE AT CERN

State-of-the-art IT equipment incl. videoconferencing
Showcase for experiments for schools linked to CERN’s scientific programme and technologies
TEST BED FOR PHYSICS EDUCATION RESEARCH

Development and evaluation of student activities accompanied by research in physics education
Aims of S’Cool LAB

MAKE CERN’S PHYSICS AND TECHNOLOGIES UNDERSTANDABLE TO STUDENTS THROUGH HANDS-ON EXPERIMENTATION

GIVE INSIGHTS INTO THE WORKING METHODS, TECHNOLOGIES, AND RESEARCH OF THE WORLD’S LARGEST PARTICLE PHYSICS LABORATORY
## Experiments

### Particle Acceleration
- Electrons & electric fields
- Superconductivity
- Particle traps

### Basics & Applications
- Hall effect
- Electrons & magnetic fields
- Pet
- Rutherford-Ford experiment
- Planck’s constant
- X-ray machines
- Franck-Hertz experiment

### Particle Detection
- Cloud chambers
- Scintillation detectors
- Pixel detectors (MEDIPiX)
- Ionisation chambers

... and many more to come
• international competition
• selection by a large team of evaluators
• followed by a complete approval process through the appropriate scientific committee
• 2016:
  • 151 teams
  • 1260 students
  • \( \frac{1}{3} \) girls
  • \( \frac{1}{3} \) non-member states
  • 2 winning teams
Education, Communication, and Outreach

Services
Audiovisual Production Service

The Audio Visual Production Service is part of the Education, Communications and Outreach Group (ECO) within the International Relations Sector (IR).

Its main mission is to produce engaging visual products (photos, videos, Video News Releases VNR, film, slideshows, photo-stories, live broadcasts...) in line with CERN’s education, communication and outreach priorities for a variety of target audiences (general and specialized).

Another important mission of the Service is to document milestones of CERN’s life, people and history with photography and video, for archival purposes.

The Service also supports other Sectors with professional expertise in video/photo production.
International Relations

Protocol

... a very special visits service ...
Big Outreach Events … on the Horizon

- two “big” outreach events coming up these years
  - OpenDays in 2019 during LS2 (May or October)
  - one new event format in 2017
    
    stay tuned!