



Teacher and Student Programmes

Joint CERN-Cyprus Committee
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Head of Teacher and Student Programmes



Education @ CERN – Today

CERN Education Programme for Teachers and Students



Teacher Programmes

1 staff 
½ doct 

S’Cool LAB

1 fellow 
1 doct  
1 technician 




Competitions

2 fellows 


Internships

1 fellow 

Publications

1 staff 
1 admin 
1 tech 

Collaboration 1 user 

Physics Education Research 3½ doct   



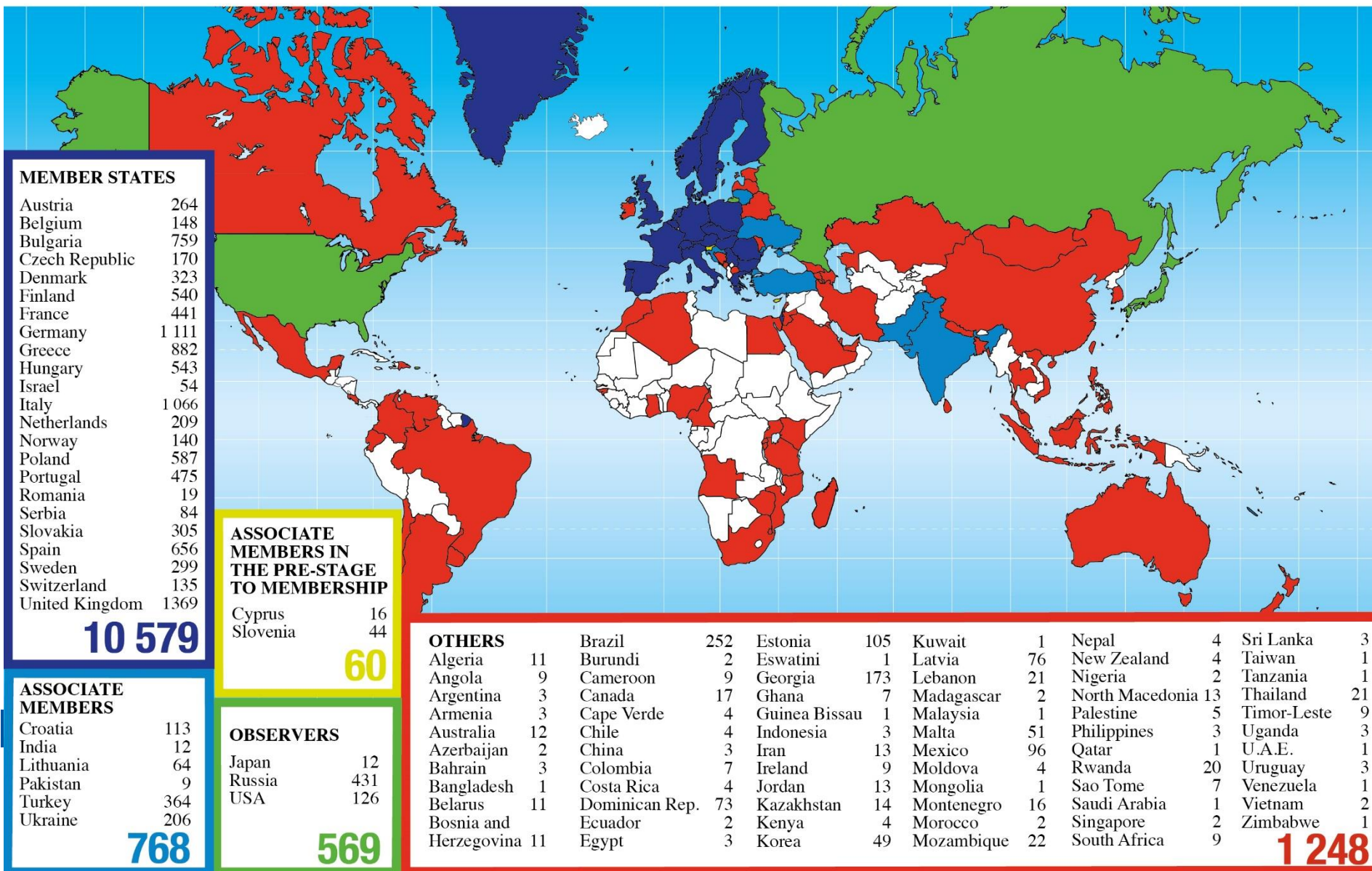
1 staff 
1 fellow 



International Relations Sector
Secteur Relations Internationales

Our Programmes

Teacher Programme Participants 1998 - 2019 (Total: 13 224)

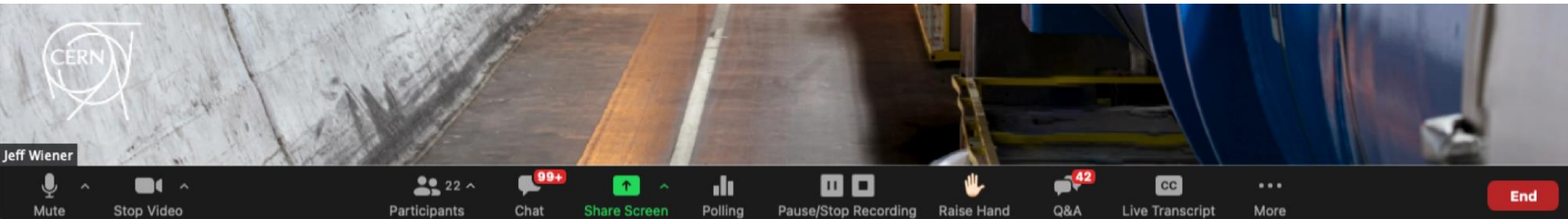


Teacher Programmes

ONLINE Teacher Programmes

11 programmes,
different formats,
more than 1500
teachers,
37 countries

- ❖ Italian Programmes
- ❖ Spanish Language Programme
- ❖ UK Programme
- ❖ Slovenian Programme
- ❖ Romanian Programme
- ❖ Upcoming Programmes in German, Spanish, and French Language



S'Cool
LAB

Welcome

There is always a way to do it
better... find it!

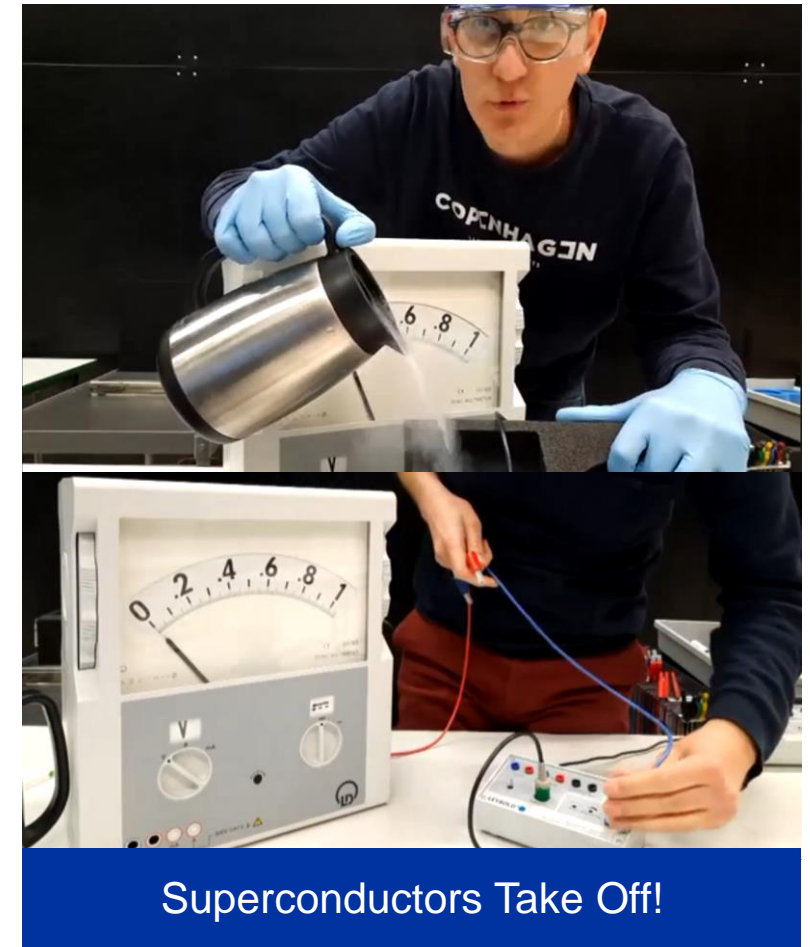
If you can't explain it simply,
you don't understand it well enough



Virtual Science Shows

The pandemic as great opportunity

- Live interactive demonstrations of scientific phenomena
- Links to CERN research
- Questions and answers
- Various languages



Virtual Science Shows

Participation overview

Since October 2020 we performed **49 shows**.

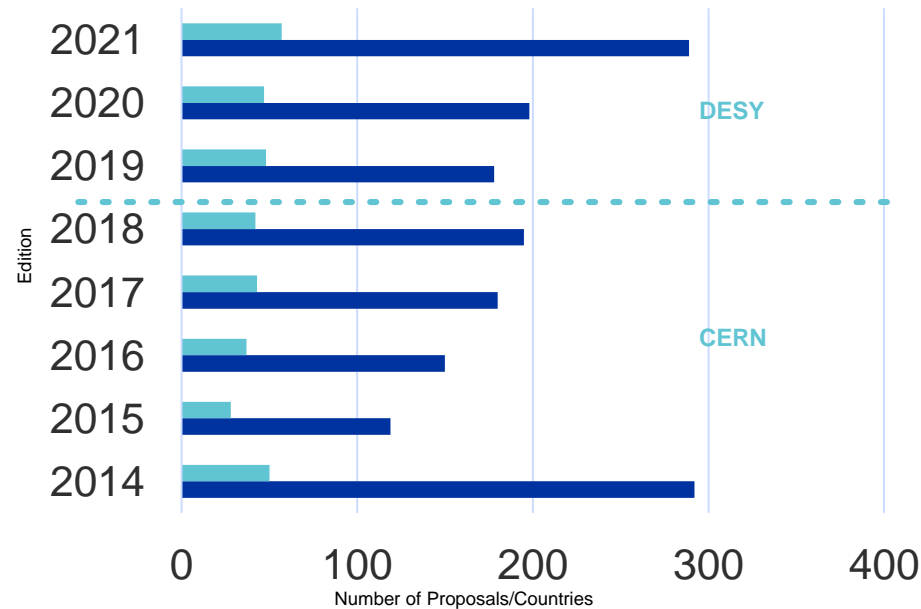
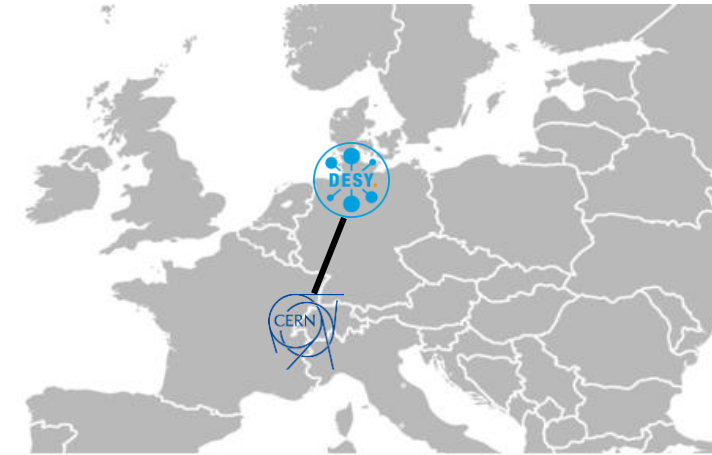
Our shows “travelled” to **14 different countries**.

We reached more than 2000 students between ages 12 and 19!



Beamline for Schools

- Competition for High-School Student Teams
- Normally at CERN's PS, 2019-21 at DESY
- Participation 2021
 - 298 proposals
- 2022
 - beamline at CERN back in the competition



High-School Students Internship Programme

2017						
2018						
2019						
2021						

Participation from Cyprus

- Teacher Programmes

- Greek Teacher Programmes 2011, 2012, 2017 4 teachers each
- SESAME Teacher Programme 2015 2 teachers
- HST 2017 1 teacher
- ITW 2019 1 teacher

- S'Cool LAB

- no participation in S'Cool LAB Days/Workshops
- S'Cool LAB Summer Camp 2018 1 participant

- Beamline for Schools

- 2018 one team participated; shortlisted
- 2019 one team participated
- **2021** *one team participated*

Teacher and Student Forum

- This is one of several CERN Member State Thematic Forums. Their goal is to bring together CERN and Member State representatives who are experts in the relevant field to exchange information, share ideas and discuss the development of coherent strategies. Associate Member States may also participate.
- The Teacher and Student Forum focusses on pre-university activities, both for teachers and for students, as well as on the research on these activities.
- regular meetings in the March and September CERN Council Weeks
- CERN Member and Associated Member States are invited to send a representative

Chapter

Environmental and Societal Impact

Particle physics, with its fundamental questions and technological innovations, attracts bright young minds.

Their education and training are crucial for the needs of the field and of society at large.

Public engagement, education and communication in particle physics should continue to be recognised as important components of the scientific activity and receive adequate support.

The particle physics community should work with educators and relevant authorities to explore the adoption of basic knowledge of elementary particles and their interactions in the regular school curriculum.

Deliberations

CERN has thriving teachers and students programmes, which are also capable of generating valuable data that should be made available to the education research community.

Vocational education in the fields relevant for CERN should also be encouraged. It is important to be inclusive for all students, and initiatives to address under-represented groups should be supported.

The Science Gateway, under construction at CERN, will offer a golden opportunity to reinforce particle physics public engagement and education, which should be made to radiate across the whole of Europe.

Physics Education Research

The basis of all our programmes

Fostering i

Sarah Zöchling

Link to CERN

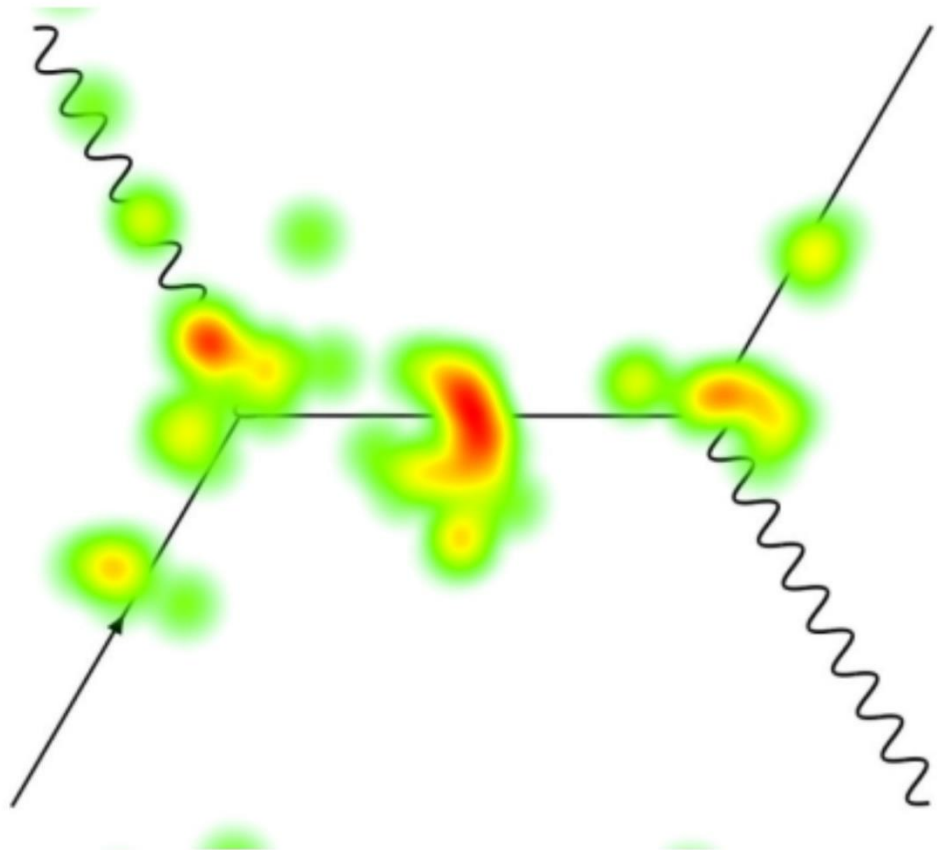
Development of
interest in partic
students' interes
contexts to ...

- define interest
- give recommen
material

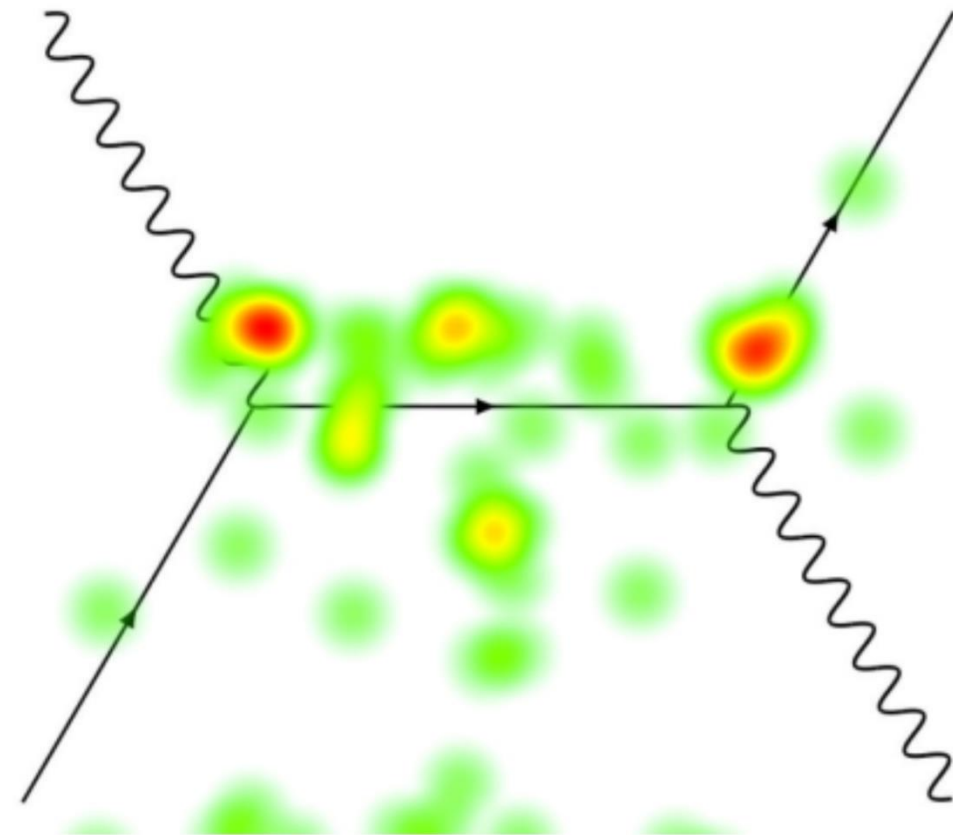


Eye Tracking in PER

Novices



Experts



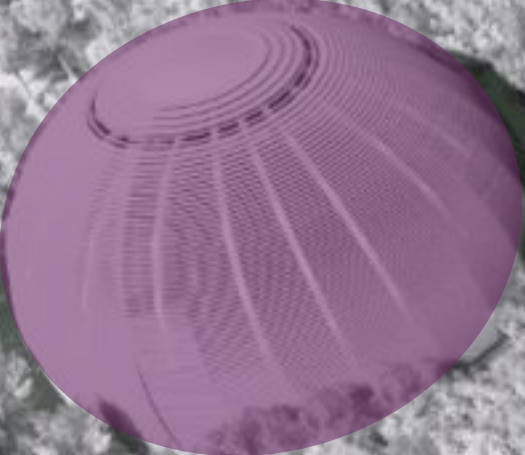
How many Vertices is the diagram composed of?



International Relations Sector
Secteur Relations Internationales

Science Gateway

A future outlet for Science Education and Outreach



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