CERN Introduction

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What does « CERN » stand for?

European
Européenne
European for
Européenne pour la
Research
Recherche
Research

What does « CERN » stand for?

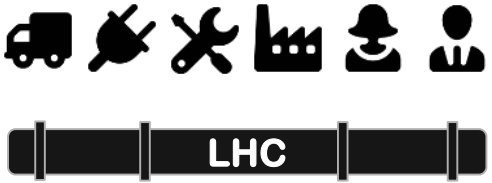
European
Organization for
Nuclear
Research

CERN

Who is it ?

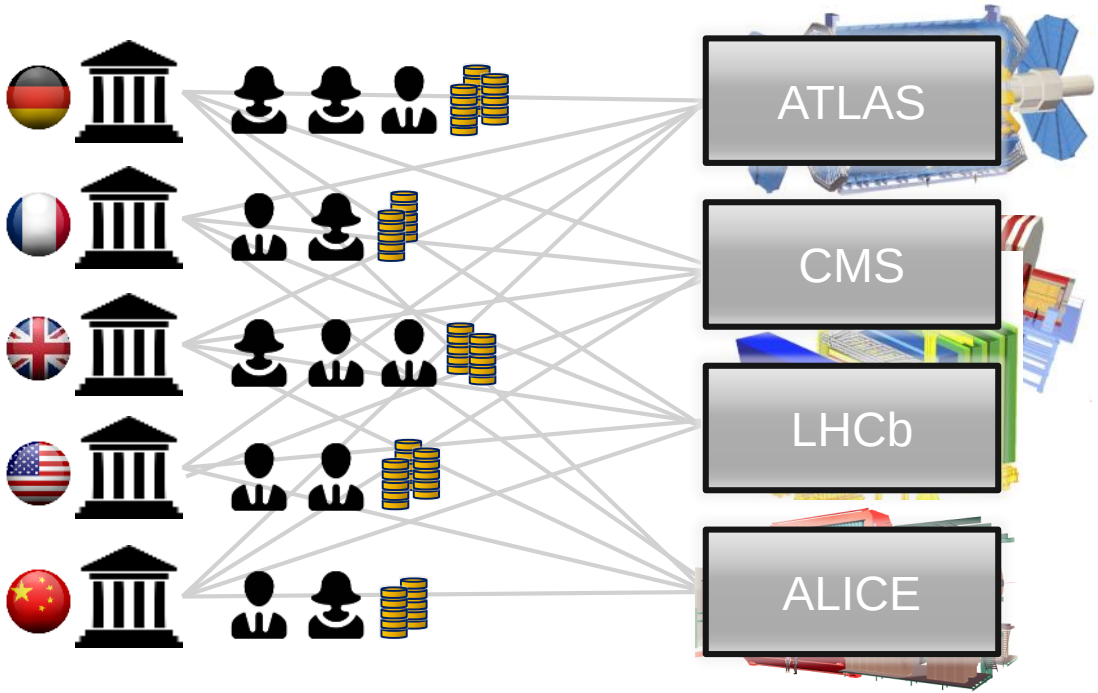
Member states

Ca 1 Bn CHF



Germany	20.52%	
United Kingdom	14.65%	
France	14.61%	
Italy	11.04%	
Spain	7.61%	
Netherlands	4.74%	
Switzerland	4.03%	
Norway	2.91%	
Poland	2.81%	
Sweden	2.78%	
Belgium	2.74%	
Austria	2.20%	
Denmark	1.75%	
Finland	1.37%	
Israel	1.42%	
Greece	1.32%	
Portugal	1.14%	
Czech Republic	0.98%	
Romania	0.98%	
Hungary	0.61%	
Slovakia	0.49%	
Bulgaria	0.29%	

Collaborations

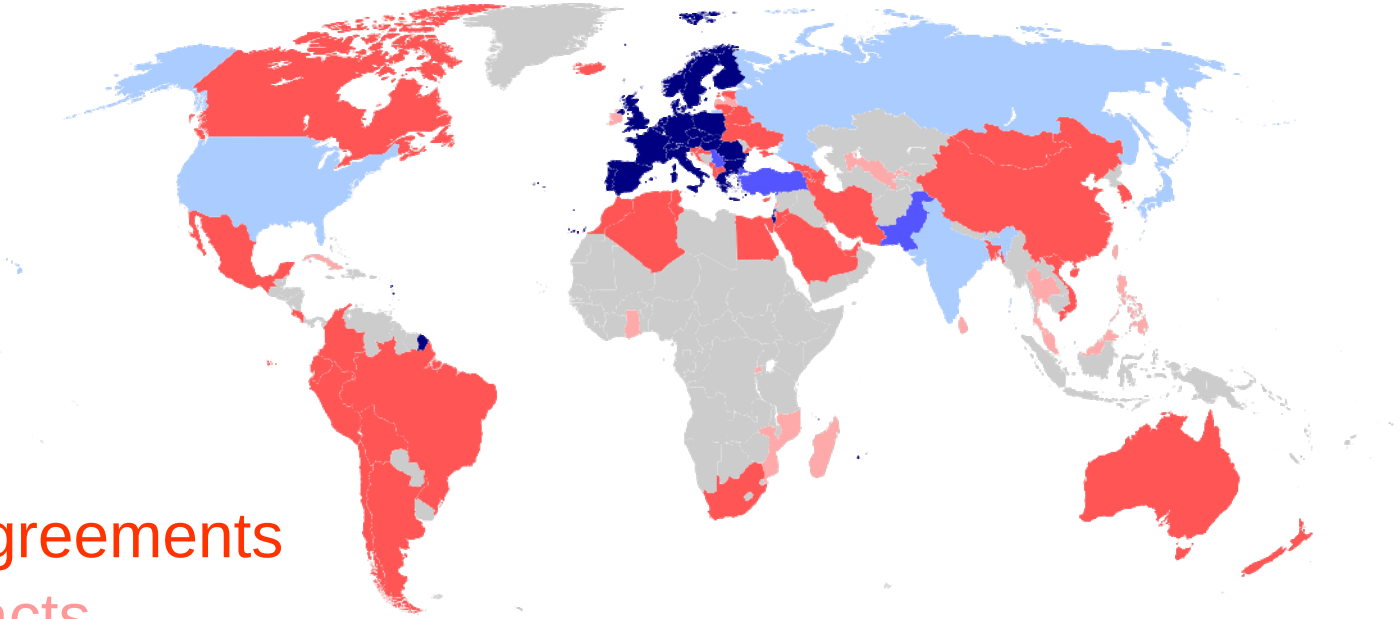


Global collaboration

22 members

3 associates

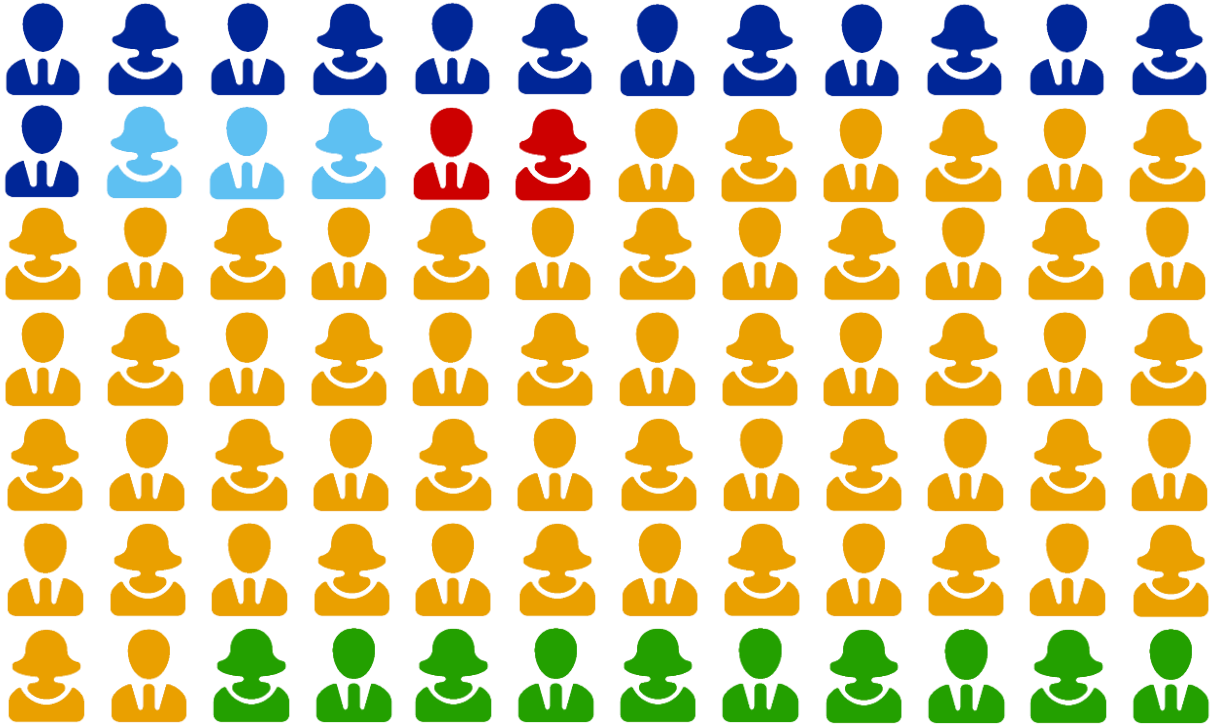
5 observers



Cooperation agreements

Scientific contacts

How many people?



=+15’000

2’500 staff

600 fellows & apprentices

500 students

11’000 users

2’000 external companies

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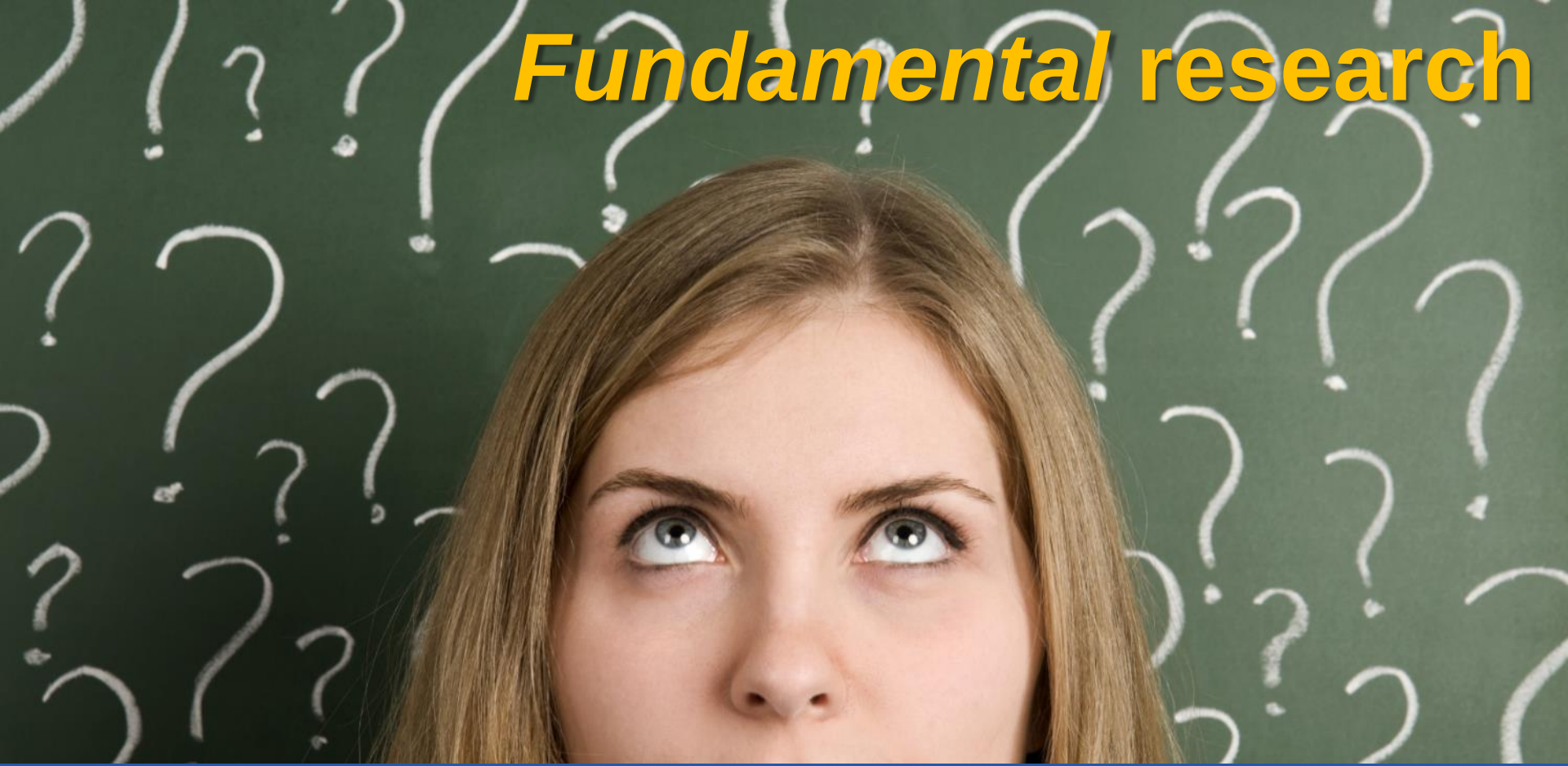
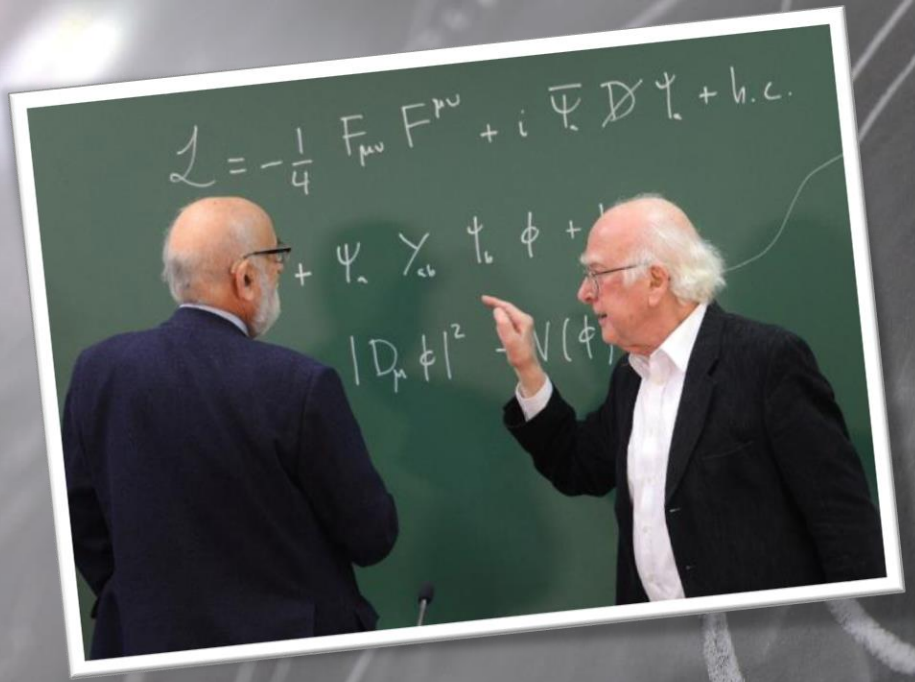
What for ?

Fundamental research



Answering questions…



Higgs ?

Answering questions…

Antimatter ?

Answering questions…

Dark matter ?

Collaborate

Educate

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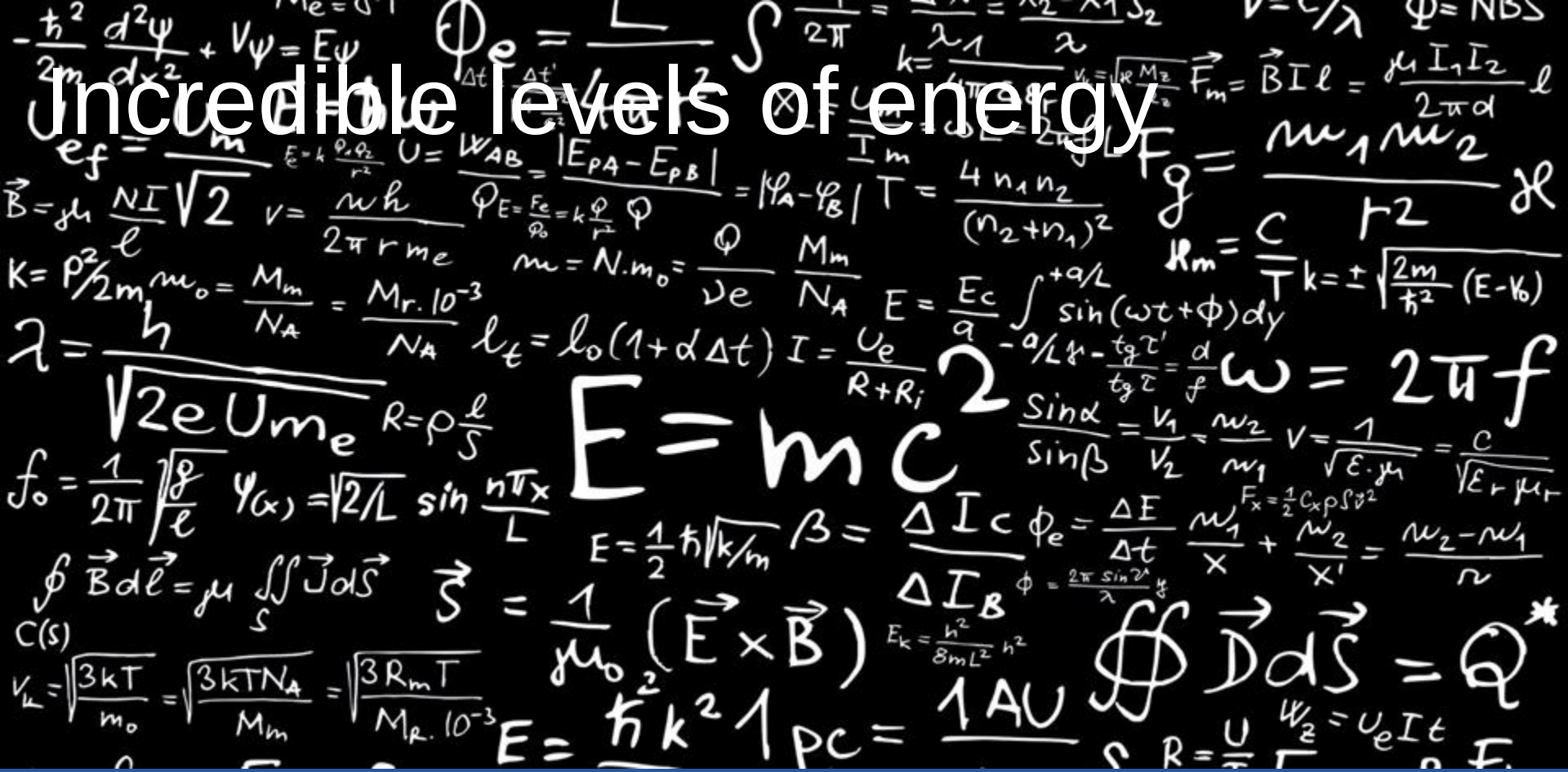
How does it work ?

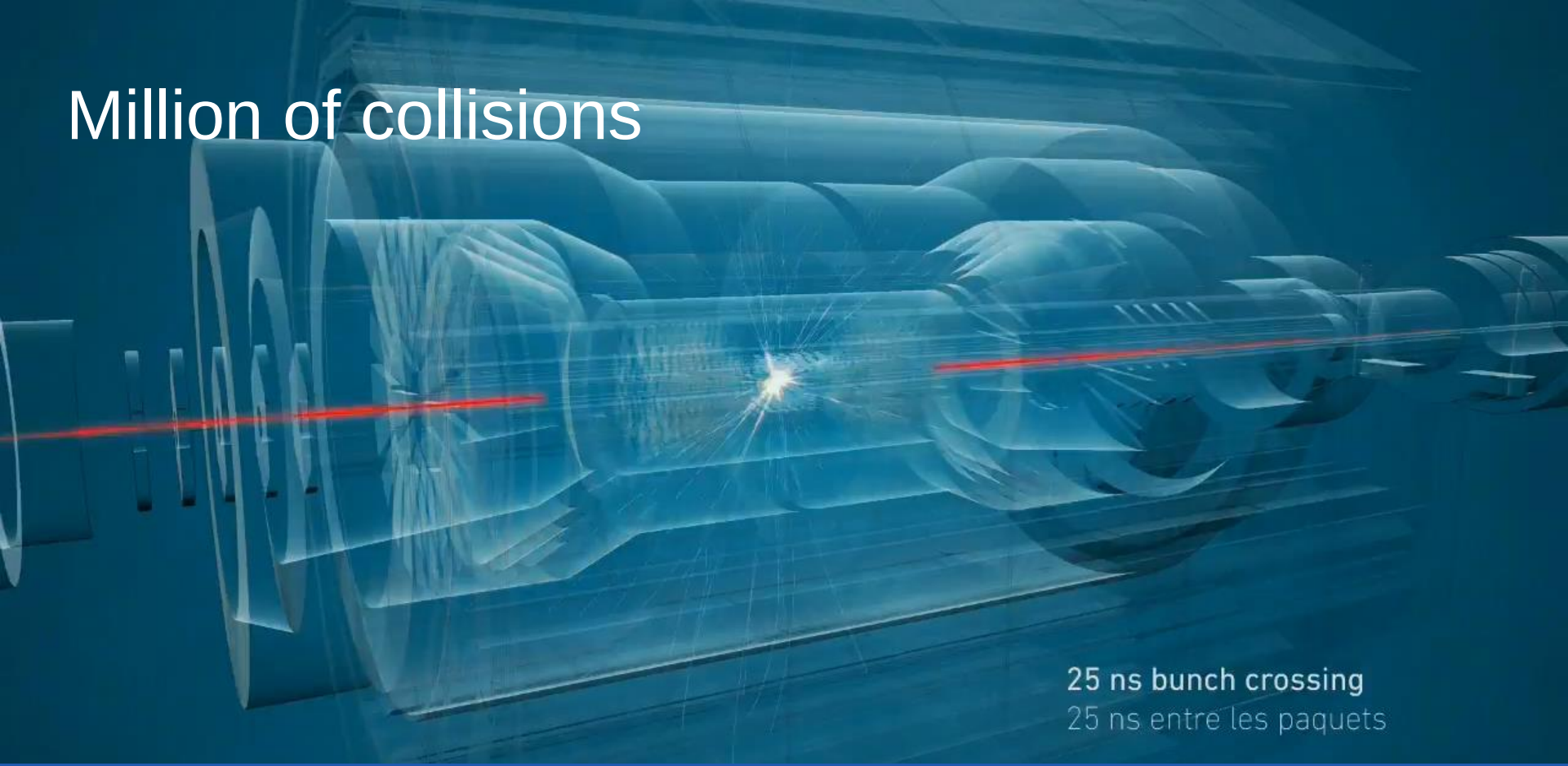
Accelerating and colliding

Incredible levels of energy

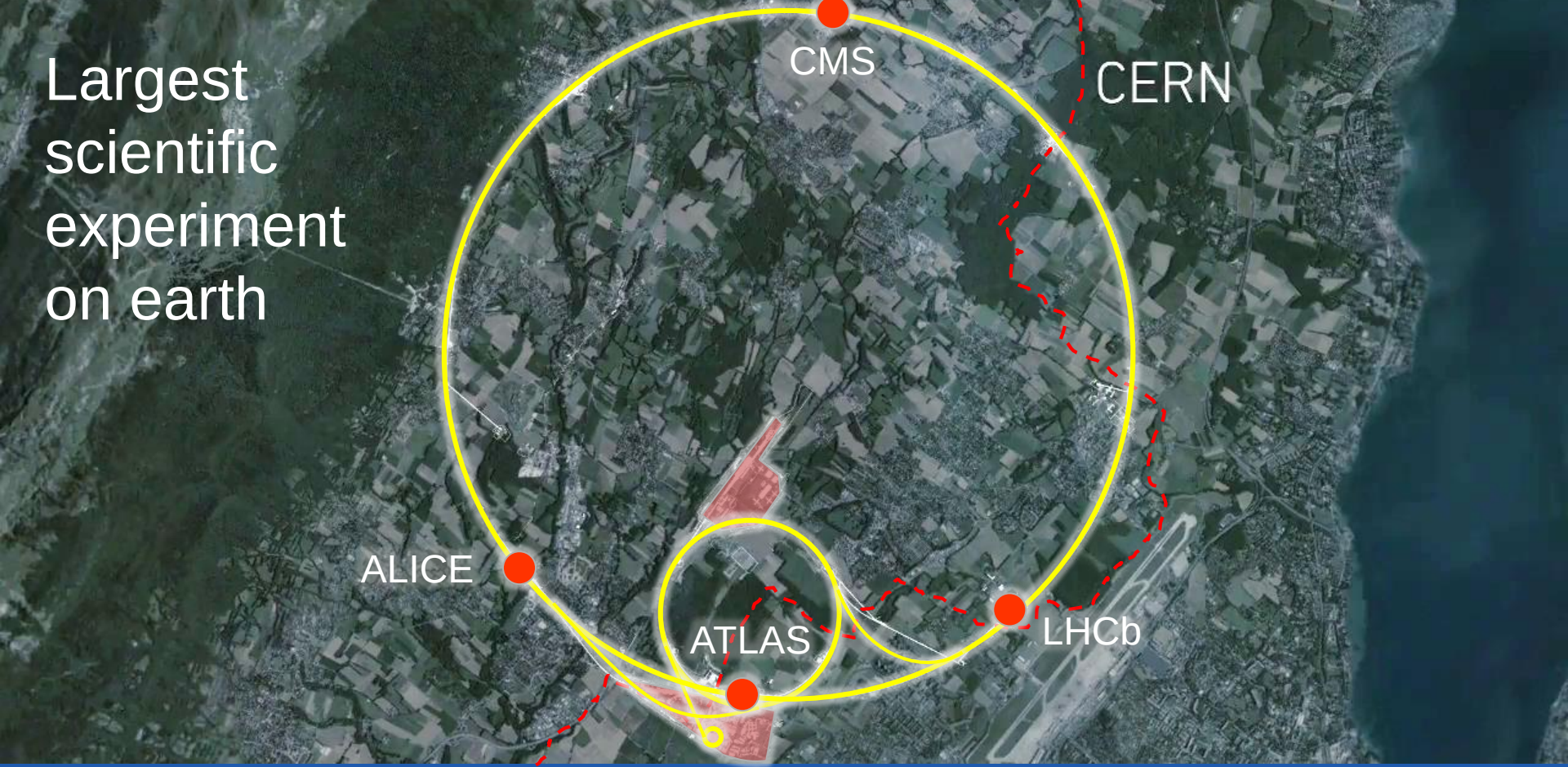


Accelerators chain

Million of collisions

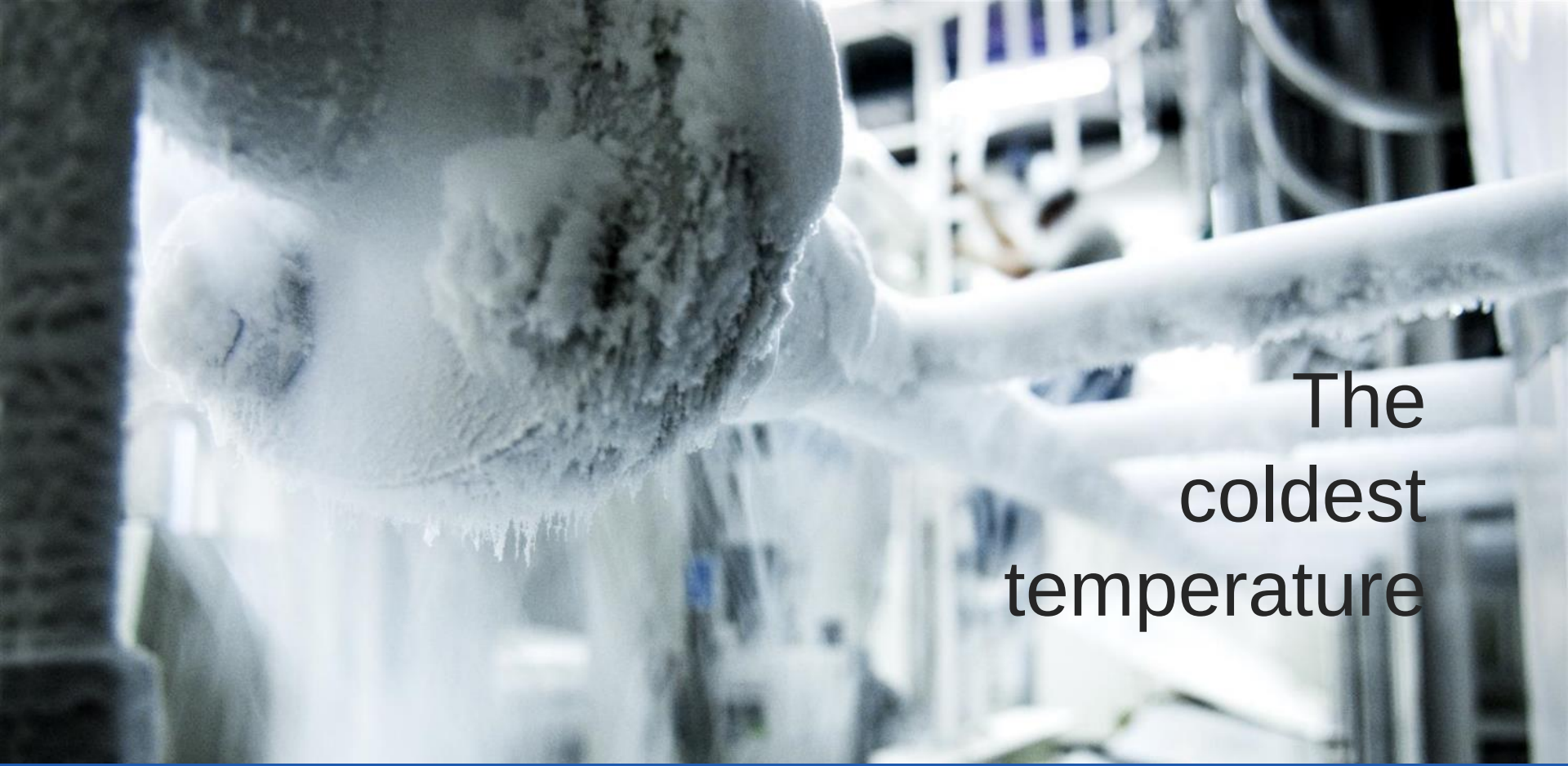


Largest scientific experiment on earth

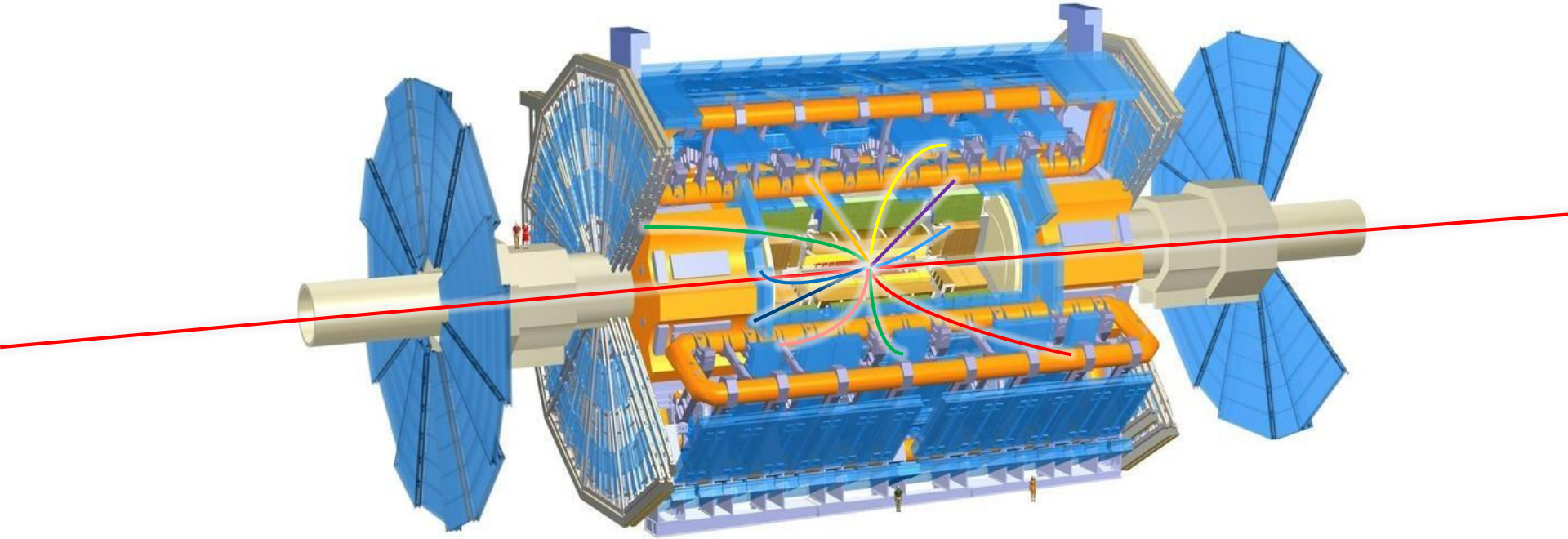


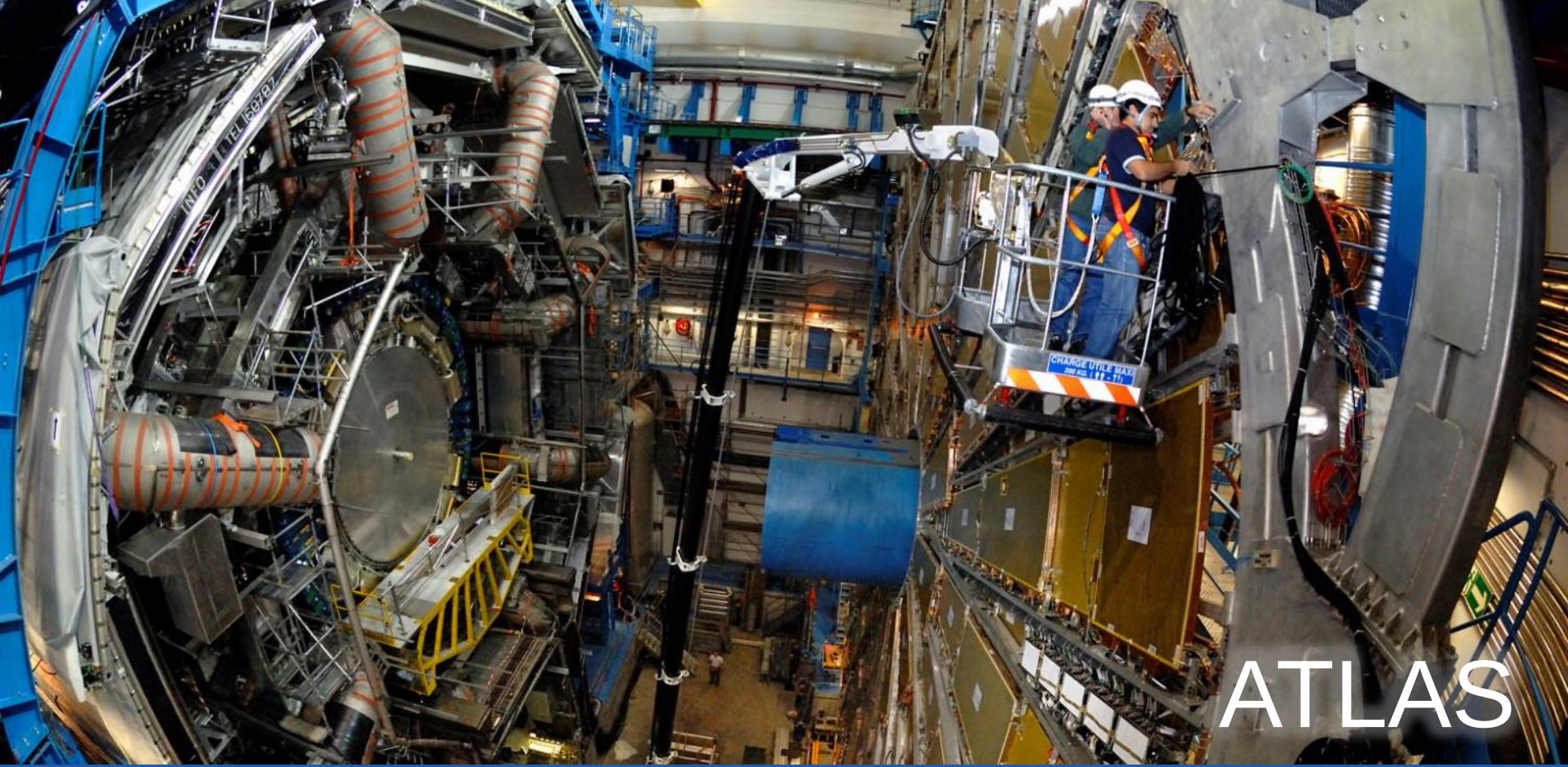
The most powerful magnets

The highest vacuum


The
coldest
temperature

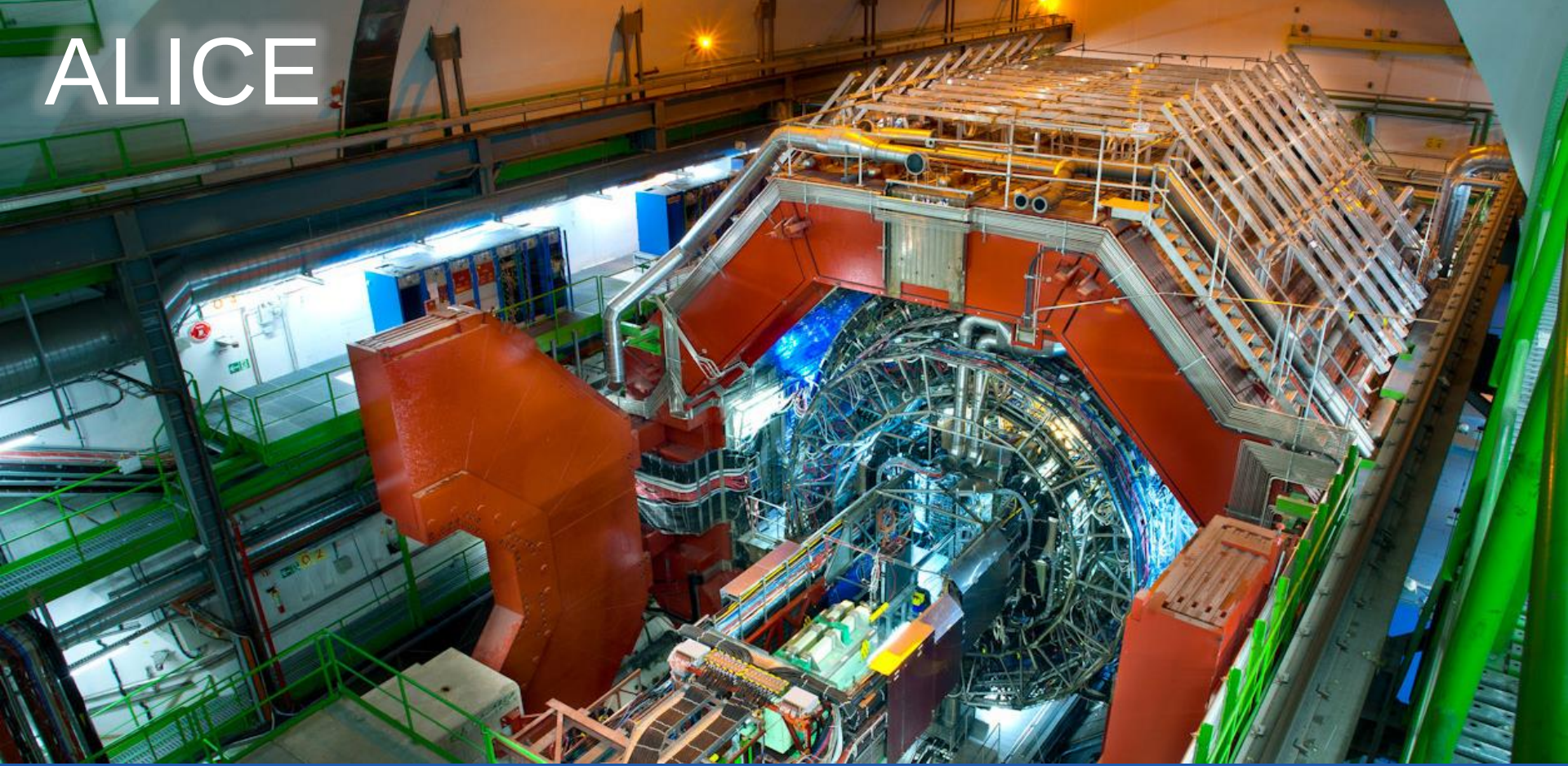
The largest detectors



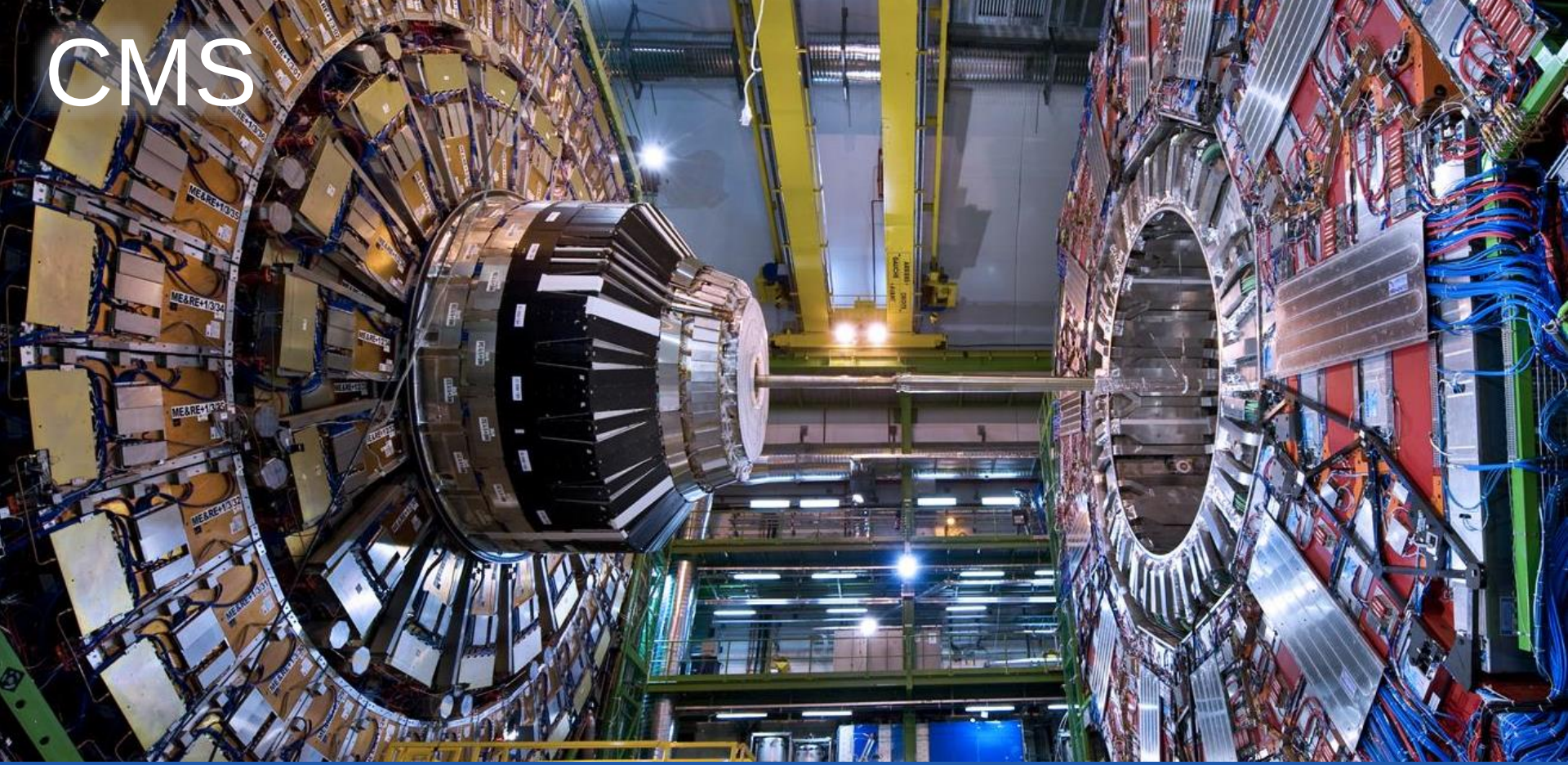


ATLAS

ALICE



CMS



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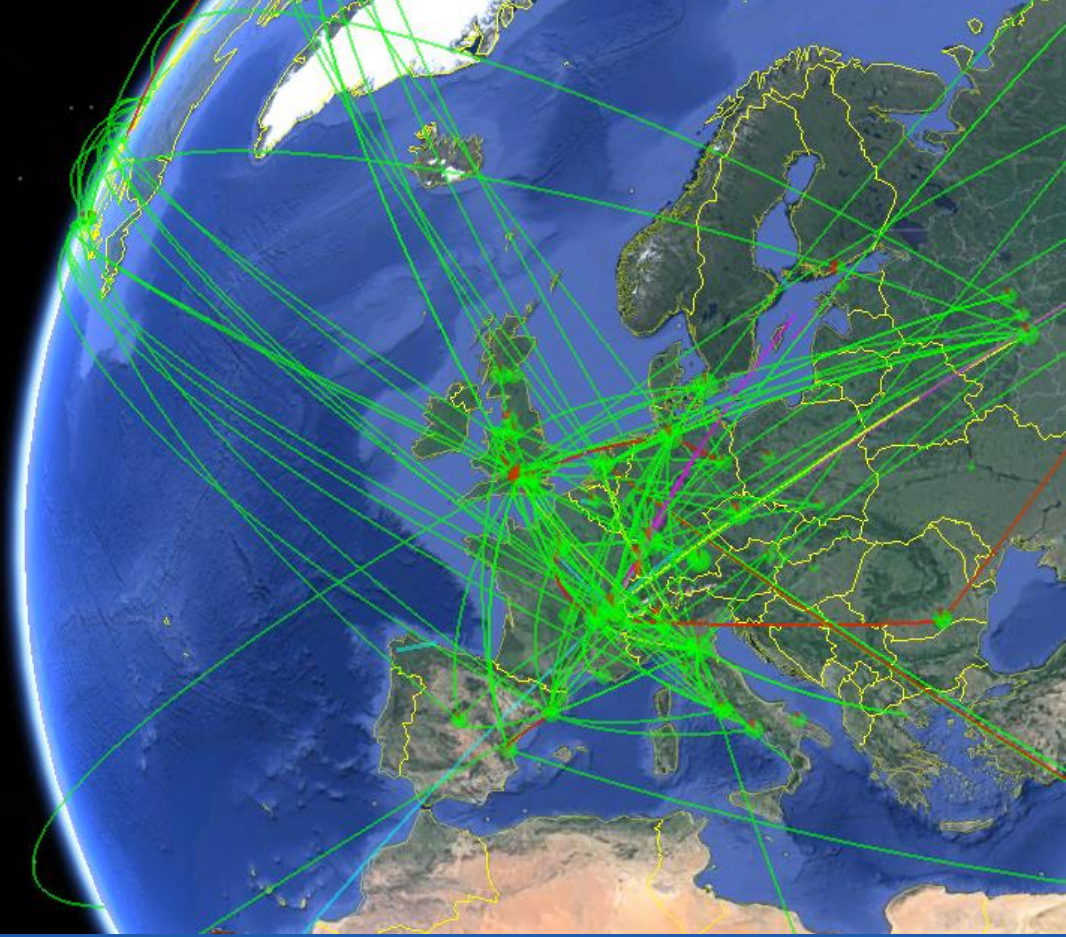
LHCb

The largest computing grid



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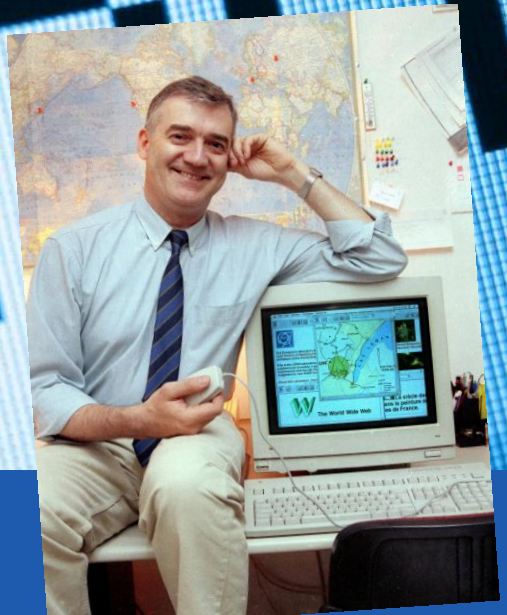
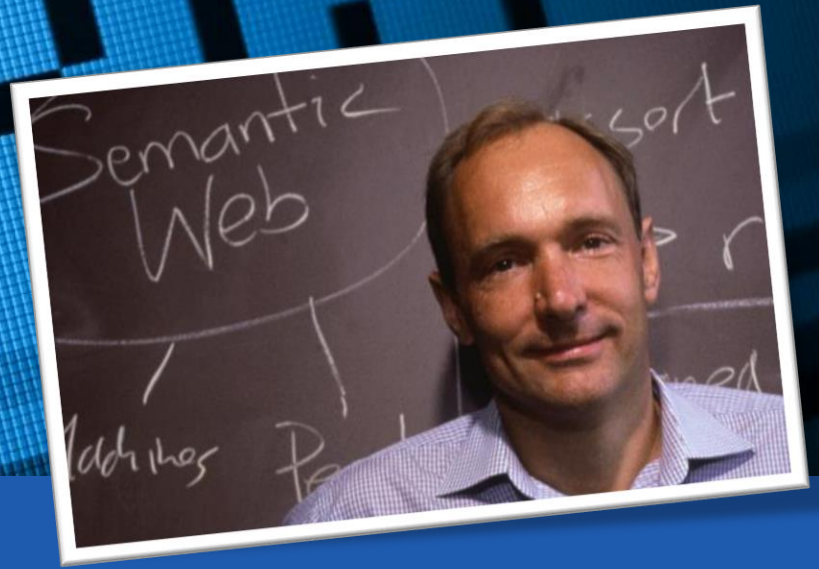
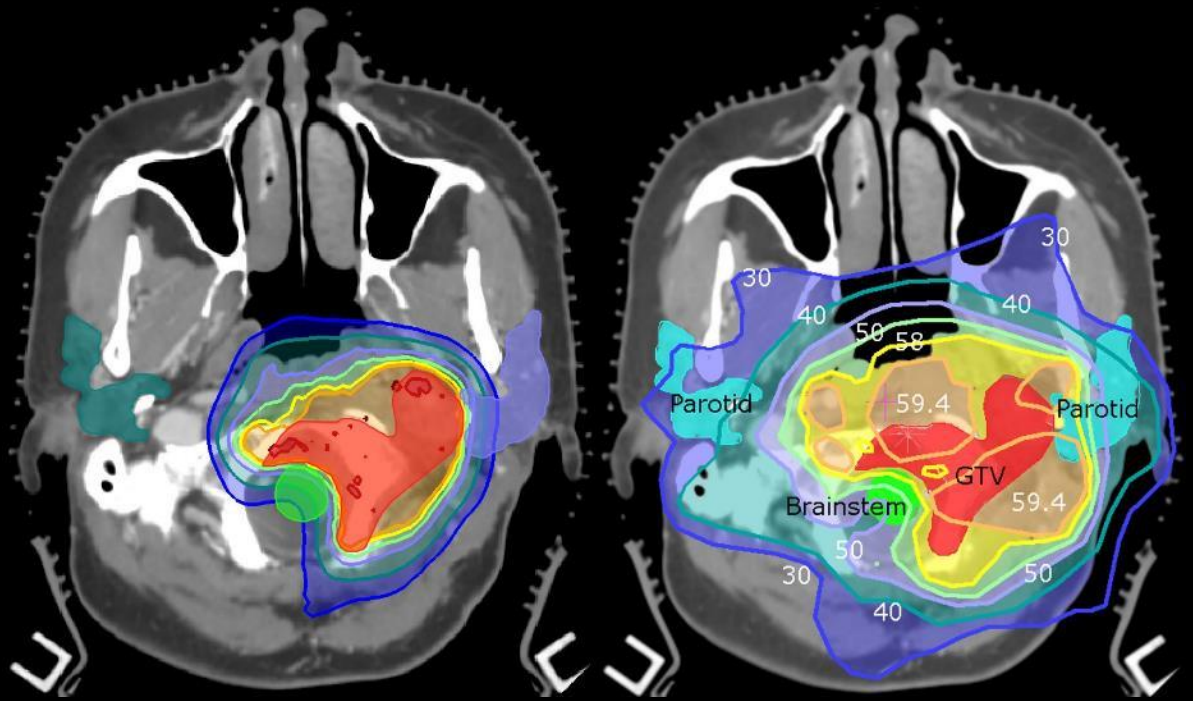
So what ?

World Wide Web

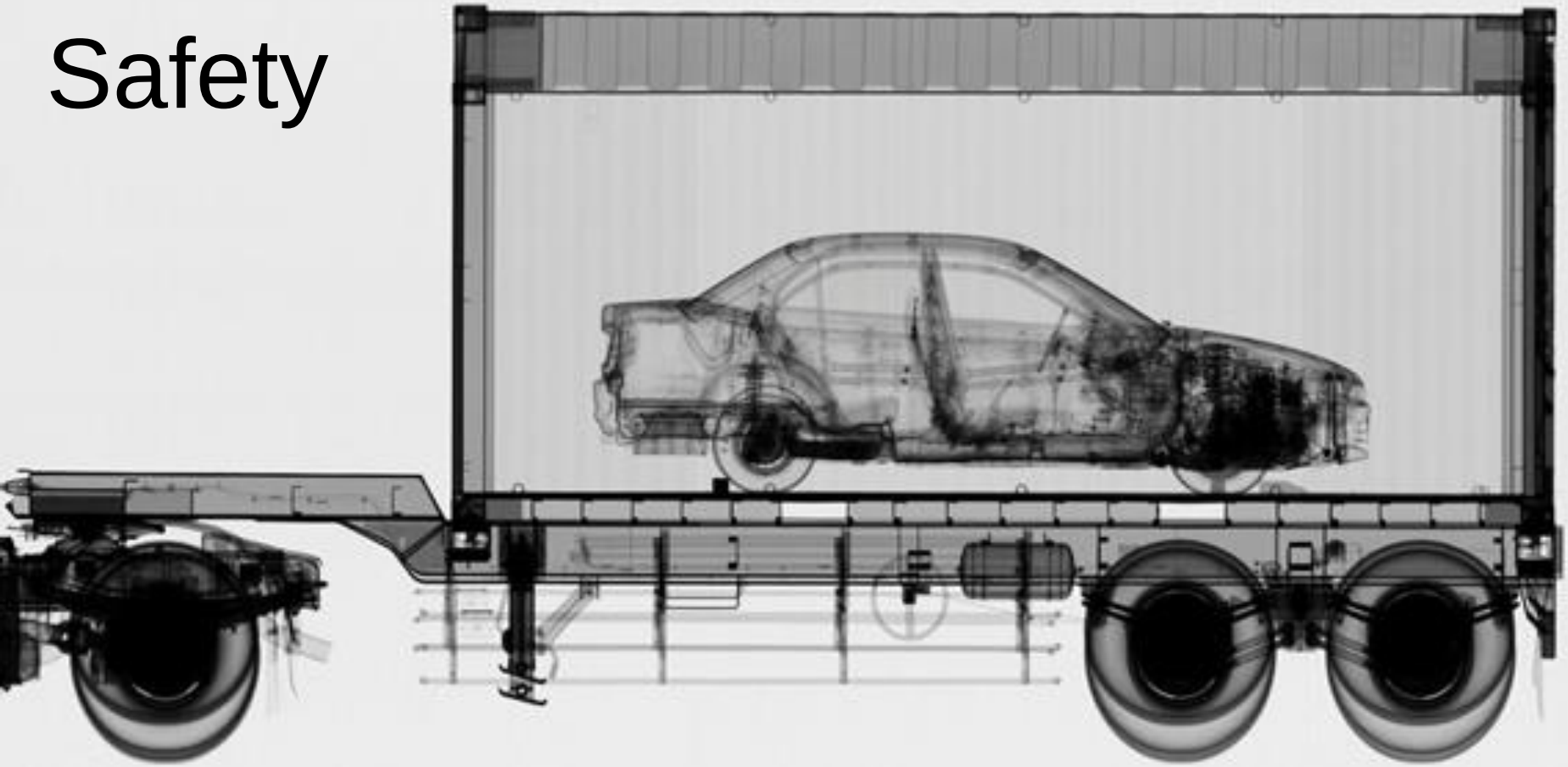


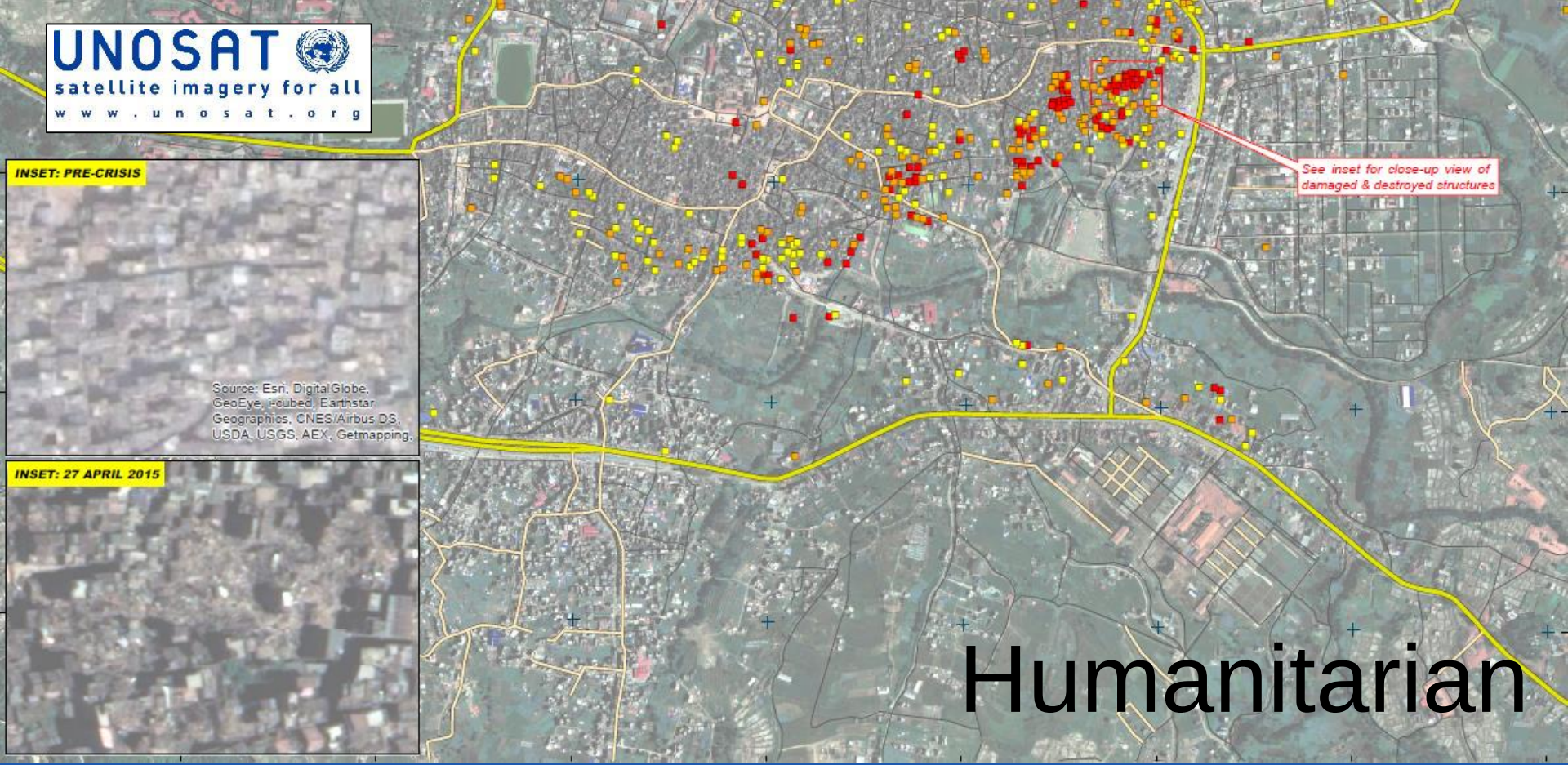


Medical applications



Safety

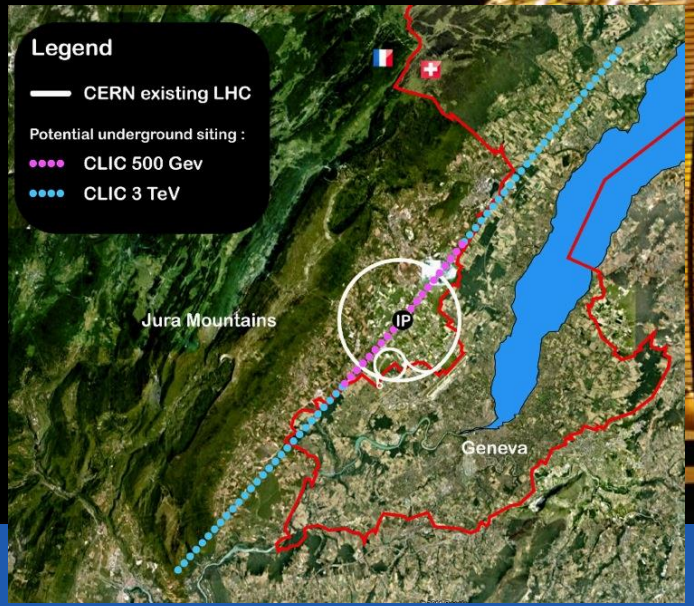


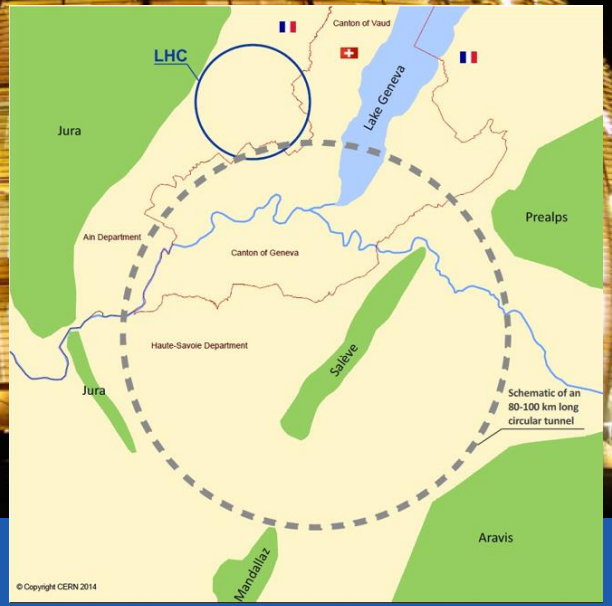


Humanitarian

Future…?

- Compact Linear Collider (CLIC)
- Future Circular Collider (FCC)





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