



The Particle Accelerator Community Working together across borders

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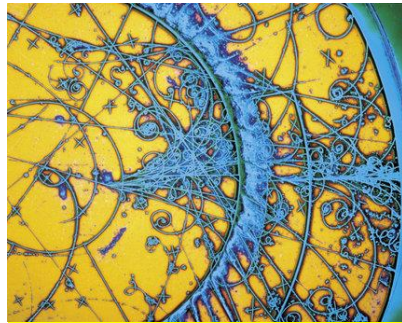
The Particle Accelerator – a concentrate of technologies

- Particle accelerators are our only tool to access the atomic and subatomic world.
- Advanced scientific devices (instrumental to 1/3 of all Nobel prizes in physics) but also everyday instruments in industry and hospitals.
- Wonderful concentrates of electrodynamics theory and pure technologies: electronics, mechanical engineering, vacuum, microwaves, superconductivity, cryogenics,...



Accelerators in transition – with EC support

- Transition to **new more affordable and sustainable technologies for basic science**
- Transition from **basic science to applied science, to medicine and industry**
- Transition from **large scientific laboratories to smaller centres and to industry**
- Transition from **a centralised configuration to a distributed multi-actor scheme**



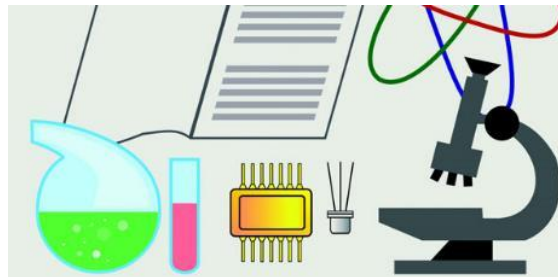
Basic science



size, cost,
energy
consumption,
of future
projects



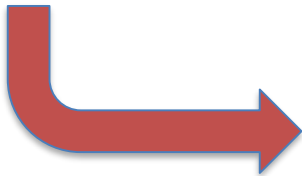
New ideas and
technologies



Applied science (photon
and neutron sources)



Societal applications
(medicine,
industry,
environment
etc.)



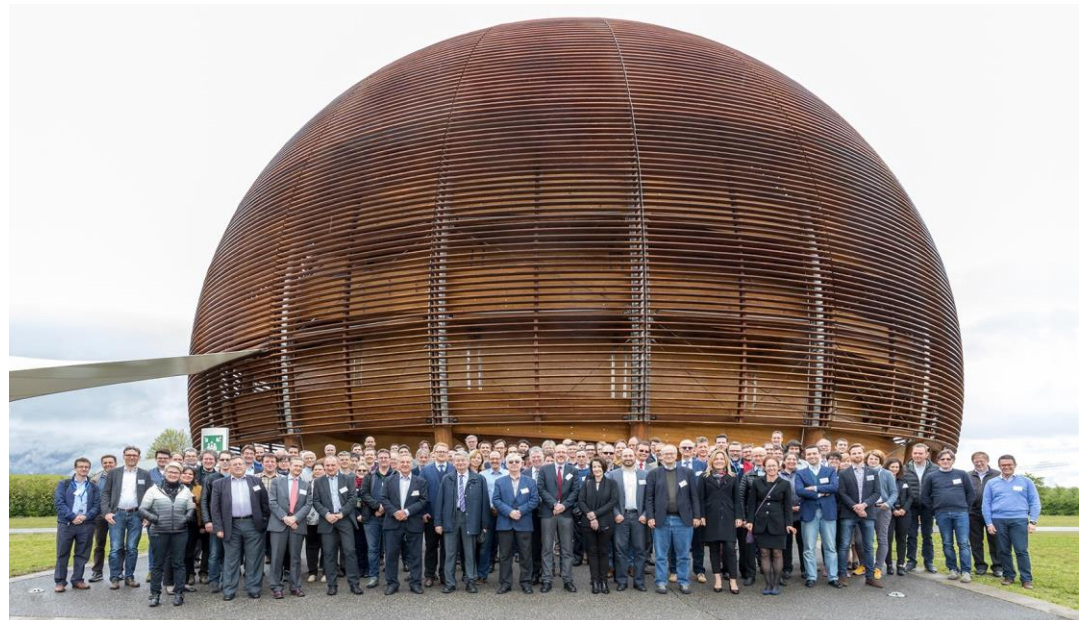
ARIES – a leap forward for accelerator science

ARIES = Accelerator Research and Innovation for European Science and Society

An **Integrating Activity for R&D on Particle Accelerators**, supported with 10 M€ by the European Commission under the Horizon 2020 programme for Research and Innovation – support to Research Infrastructures.

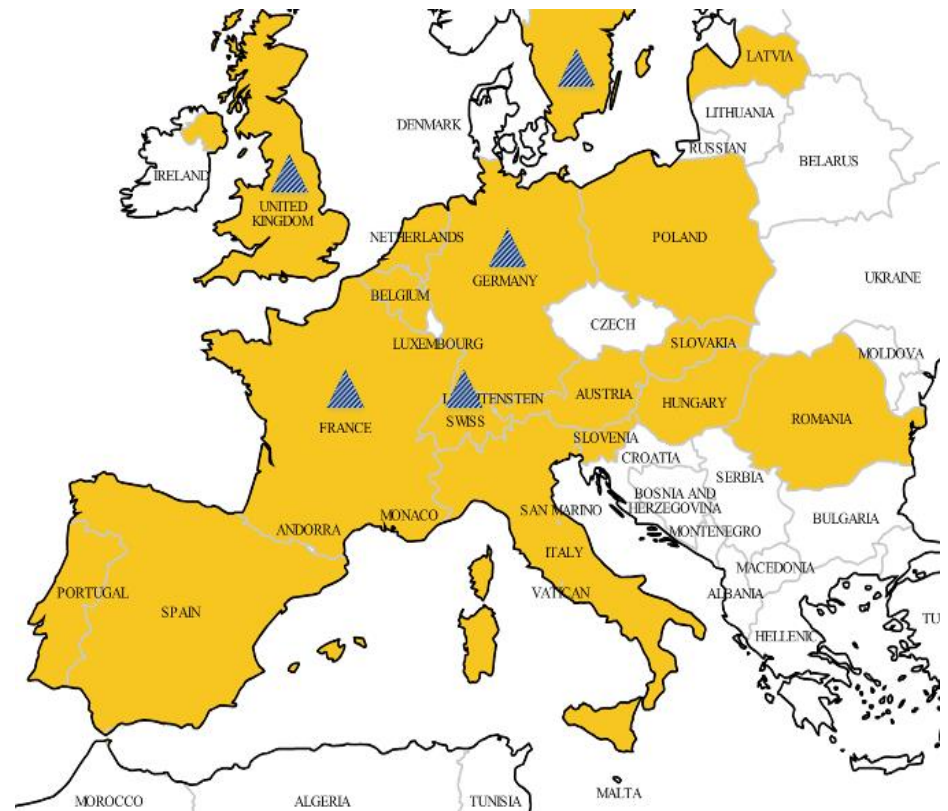
Goal: identify and promote the technologies for the particle accelerators of the future, for the needs of science and of society at large (medicine, industry, environment).

All is in the people:
ARIES mobilizes more
than 400 physicists
and engineers from 18
European countries



Connecting Europe, connecting academia with industry

- 41 partners from 18 European countries
- Goal to connect the **technological core of Europe** with its **dynamic periphery** and to connect the **large laboratories** with **universities, research centres and industries**.
- 12 Laboratories and research institutions, 22 Universities and research centres, 8 industries.



ARIES building bridges...

To promote the technologies of the future, ARIES aims at building bridges inside our community and towards different communities.

Because **the best ideas are always born at the intersection of fields, of disciplines, and of cultures.**



Today, we try to open a bridge towards the open sea...

