

TIARA

Test Infrastructure and Accelerator Research Area

Accelerator R&D and its applications often lead to innovations with strong socio-economical impacts. Indeed, particle accelerators are vital state-of-the-art instruments for both fundamental and applied research but they are also used for other purposes in a huge variety of fields: Health and Medicine, Industry, Energy and Environment.

The main objective of TIARA is the integration of national and international accelerator R&D infrastructures into **a single distributed European accelerator R&D facility**. This will include the implementation of organisational structures to enable the integration of existing individual infrastructures, their efficient operation and upgrades, and the construction of new infrastructures as part of TIARA.

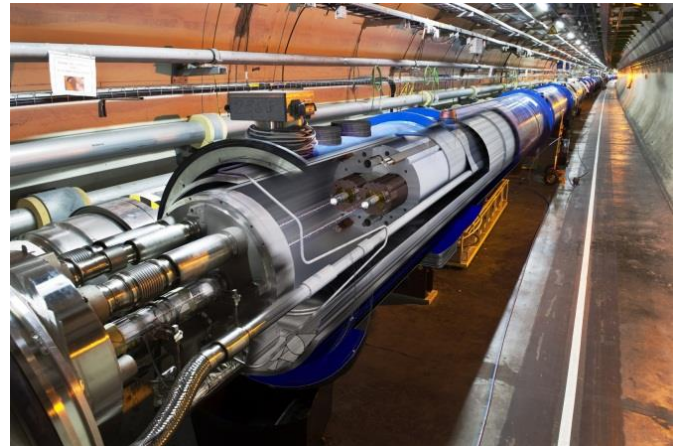
Besides the provision of a world-level state-of-the-art distributed R&D facility, TIARA will develop means for establishing and supporting:

- joint accelerator R&D programming,
- joint education and training programmes,
- strengthened collaboration with industry.

Structuring and enhancing accelerator R&D in Europe

TIARA will deliver **a sustainable coordinated European framework** for the benefit of:

- **various fields of science**, which need state-of-the-art and/or cost effective accelerators to carry out their research programme,
- the implementation of the accelerator-based **infrastructures identified in the ESFRI roadmap**,
- **European countries** to invest and develop their own infrastructures and research centres as parts of TIARA, within **an established Europe-wide coordination framework**,
- **Europe as a whole** to ensure world-level leadership in the field of accelerator science and to enable coordinated and efficient means for its regionally balanced scientific and technological development.



Images credits: LHC, CERN, Switzerland

Advantages to join TIARA

TIARA partners (national laboratories, universities and industry) will benefit both from scientific and financial points of view:

- Access to research infrastructures and associated expertise on state-of-the-art technologies will be made easier,
- Collaborative R&D activities and related funding will be more sustainable and adapted to needs of the context in so far as TIARA aims to complete the calls for proposal managed by the European Commission,
- Access to TIARA's coordinated communication, dissemination and outreach activities.

TIARA Preparatory Phase

The means and structures required to bring about the objectives of TIARA are being developed through the **TIARA Preparatory Phase** project (TIARA-PP), which started in January 2011 and will run for three years.

The TIARA-PP consortium includes 11 participants from 8 countries.

TIARA-PP in summary



Project acronym: TIARA-PP

Funding scheme (FP7): Preparatory Phase

EU financial contribution: €3.9 million

Duration: 36 months

Start date: 1 January 2011

Completion date: 31 December 2013

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Project webpage: www.eu-tiara.eu

Partners:

- > Commissariat à l’Energie Atomique et aux Energies Alternatives (CEA), France
- > European Organization for Nuclear Research (CERN), Switzerland
- > Centre National de la Recherche Scientifique (CNRS), France
- > Centro de Investigaciones Energeticas, Mediambientales y Tecnologicas (CIEMAT), Spain
- > Stiftung Deutsches Elektronen-Synchrotron (DESY), Germany
- > GSI Helmholtzzentrum für Schwerionenforschung GmbH (GSI), Germany
- > Istituto Nazionale di Fisica Nucleare (INFN), Italy
- > Paul Scherrer Institut (PSI), Switzerland
- > Science and Technology Facilities Council (STFC), UK, also representing Cockcroft Institute, Imperial College London and John Adams Institute
- > Uppsala University, Sweden, also representing the universities of Aarhus in Denmark, Helsinki and Jyväskylä in Finland, Oslo in Norway, and Lund and Stockholm in Sweden
- > The Henryk Niewodniczanski Institute of Nuclear Physics, Polish Academy of Sciences (IFJ PAN), Poland, also representing the University of Science and Technology in Krakow, the Cracow University of Technology, the Technical University of Lodz, the Andrzej Soltan Institute in Swierk, the Warsaw University of Technology and the Wroclaw University of Technology.

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