







# CERN: SIXTY YEARS OF SCIENCE FOR PEACE AND DEVELOPMENT

### Celebrating CERN's 60th anniversary

United Nations Headquarters, New York 20 October 2014

The European Organization for Nuclear Research (CERN) is the world's leading laboratory for particle physics. It is celebrating its 60th anniversary with a series of events in Geneva, at the UNESCO headquarters in Paris, where the CERN Convention was signed, and in its Member States.

The Organization is pleased to announce that the celebrations will be brought to a close with a special high-level event at the United Nations Headquarters in New York, sealing the close relationship between CERN and the UN. The event will be held under the auspices of the President of the United Nations Economic and Social Council (ECOSOC), and will be co-sponsored by the Permanent Missions of France and Switzerland to the United Nations.

The event will consist of a series of speeches and an interactive discussion, using CERN as an example to highlight the role that science has played in peaceful collaboration, innovation and development, and to consider how this legacy can be used to address present and future global issues.

Featuring contributions from eminent politicians and scientists, the event will:

- celebrate the values promoted by science neutrality, inclusion, and co-operation;
- highlight the role of science and scientific education in sustainable development;
- promote, through an open discussion between the fields of science and politics, the idea of better integrating science into global decision-making processes.

#### **60 YEARS OF SCIENCE FOR PEACE AND DEVELOPMENT**

CERN was established after the Second World War to give Europe an institution for basic research on particle physics that would promote scientific excellence and peace.

One of its founding fathers, French scientist and Nobel Laureate Louis de Broglie, said of its establishment:

"At the very time when we talk of uniting the peoples of Europe, our attention has turned to the question of developing this new international unit, a laboratory institution where it would be possible to carry out scientific work above and beyond the framework of the various nations taking part, as it were. Resulting from cooperation between a large number of European States, this body could be endowed with greater resources than those available to the national laboratories and could then embark upon tasks whose

magnitude and nature preclude them from being done by the latter on their own. It would serve as a means to coordinate research and the ensuing results, to compare the methods used and to adopt and carry out programmes of work with the collaboration of scientists from the various countries concerned."

Since 1954, several important achievements have been made at CERN, some of which have been rewarded with the Nobel Prize in Physics. The initial vision of a scientific laboratory has grown into a model for global scientific and technological collaboration, demonstrating how science can unite nations by bringing scientists together for the benefit of all.

Moreover, developing scientific knowledge in an environment like CERN, rooted in a culture of collaboration and peace, plants in each young researcher the seed of a new idea of global citizenship for sustainable development.

#### **CELEBRATING WITH THE INTERNATIONAL COMMUNITY**

CERN wishes to celebrate its 60th anniversary by promoting dialogue between the world of research and that of politics and diplomacy.

To that end, this event will include interventions from eminent personalities representing science, diplomacy and politics, who will highlight the role of science in the sustainable development of society and peaceful international cooperation.

Under the chairmanship of the President of the United Nations Economic and Social Council (ECOSOC) and following an introduction by the CERN Director-General, the UN Secretary-General and the President of the 2nd Committee of the General Assembly of the United Nations, invited speakers from the scientific, political and diplomatic spheres will present their views on science's role in peacefully uniting international communities whose sole aim is the advancement of knowledge. The President of the General Assembly of the United Nations will close the meeting with his testimony on the role of science for the peaceful and sustainable development of the society.

Some of the speakers will also describe CERN's scientific objectives, how the Organization works and its key accomplishments as well as the shared values that have inspired many generations of researchers from all over the world. The event will demonstrate the deep commitment by CERN towards making an extensive and lasting contribution to peace and development, including through a science-based post-2015 development agenda.

The scientific community, and CERN in particular, offers governance and operational models that successfully manage complex scientific missions on which thousands of people from different cultures, nationalities and religions collaborate. Such models contribute to creating bridges between cultures and promoting exchanges between all countries, independent of their bilateral relations.

## WHAT ROLE CAN SCIENCE PLAY IN AN INCREASINGLY KNOWLEDGE-BASED SOCIETY?

CERN is honored to enjoy Observer status in the General Assembly of the United Nations since December 2012. The decision to grant CERN this status demonstrates the importance that the United Nations attaches to science and its role in society. CERN is committed to sharing its expertise with the General Assembly, ECOSOC and other UN bodies, with a view to promoting the essential role of basic science and scientific education in the advancement of society, particularly in developing countries. An example is CERN's contribution to the process of defining the post-2015 Sustainable Development Goals, as part of which the Organization proposed that each country pledge a fixed percentage of its GDP to science and to STEM education.

Regrettably, the world of science is still not fully integrated in decision-making processes at either a national or a global level. Science is too often confined to the sidelines of debates on global issues: its role and input are predominantly considered to be merely technical and may or may not be taken into account by decision-makers, depending on other considerations.

With this event, CERN, an advocate of scientific values, wishes to trigger an open and constructive exchange of views in order to hear from scientists and policy-makers on a range of questions: how can science play a more influential role in global debates? What should politics and diplomacy do to integrate science into decision-making processes? What would be the added value of better integrating science into strategies for the resolution of global issues?

The European Organization for Nuclear Research (www.cern.ch) is an intergovernmental organization whose headquarters and premises straddle the Swiss-French border near Geneva, Switzerland. It was founded 60 years ago by twelve European countries. Today, it has 21 Member States, which is expected to increase soon with the adhesion of a number of other European and non-European countries. The Organization's yearly budget amounts to approximately US\$ 1.1 billion. CERN's personnel consists of about 2300 permanent staff and 1000 fellows, students and apprentices paid by CERN as well as more than 10,000 associates, representing about 100 different nationalities, who are funded by their home institutions based in approximately 75 different countries.

The CERN Convention explicitly prohibits any activity concerned with "...work for military requirements" and stipulates that the results of any theoretical or experimental work carried out at CERN be published or made generally available to the scientific community and the general public. CERN is also very active in promoting Open Access initiatives.

During its 60 years of life, CERN has carried out a number of scientific programmes that have made fundamental breakthroughs in particle physics. Its most recent major achievement was the discovery in 2012 of the Higgs boson, which was achieved using the CERN's Large Hadron Collider (LHC), a proton-proton colliding superconducting ring with a circumference of 27 km – the most powerful particle accelerator in the world. To accomplish its scientific aims, the Organization is intensely involved in technology, innovation and education. Every year, it receives and trains hundreds of students, offering them both theoretical and on-the-job training, as well as more than one thousand high-school teachers from Member and non-Member States alike.

CERN is a concrete example of international cooperation with strong links to national research institutions and agencies. It contributes to the expansion of knowledge and allows society to profit from the innovations brought about as a result of its activities, therefore having a positive impact in non-Member States too. Its way of advancing science, unrestricted by geographic and political borders, allows CERN to create bridges between cultures and foster peaceful cooperation among people and countries around the world.

The Economic and Social Council (ECOSOC) (ECOSOC) is the United Nations' central platform for reflection, debate, and innovative thinking on sustainable development. ECOSOC engages a wide variety of stakeholders – policymakers, parliamentarians, academics, major groups, foundations, business sector representatives and over 3,200 registered non-governmental organizations – in a productive dialogue on sustainable development through a programmatic cycle of meetings. The work of the Council is guided by an issue-based approach, with an annual theme that accompanies each programme cycle, ensuring a sustained and focused discussion among multiple stakeholders. In 2013, ECOSOC addressed as its theme "Science, technology and innovation, and the potential of culture, for promoting sustainable development and achieving the Millenium Development Goals." The Council engaged Ministers of Government, the Director-General of CERN, representatives of academia, the private sector and NGOs in its deliberations on this theme. A Ministerial Declaration was adopted by the Council containing broad-based policy recommendations.

