MAURIZIO BONA

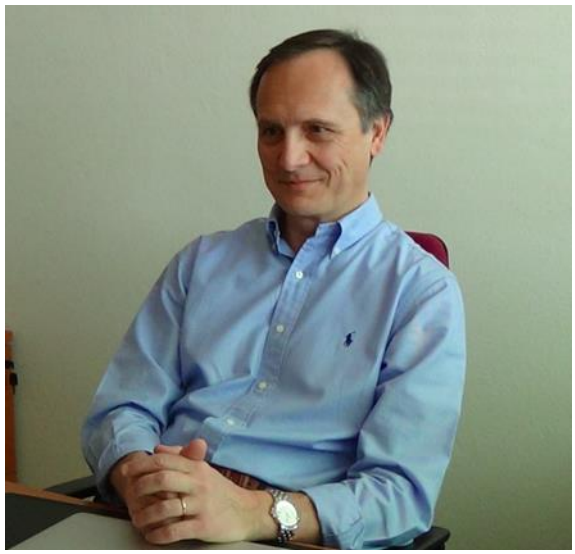
Science as a universal language

With a background in engineering and material science, Maurizio Bona joined CERN[1] in the mid-eighties and for the first fifteen years, worked on designing and developing the LHC[2] superconducting magnet prototypes. He then moved on to managerial positions for almost ten years and then, for several years, was Senior Advisor to the Director General in charge of relations with international organizations, including the United Nations and its agencies. At present, he is Senior Advisor for Relations with Parliaments and science for policy, and also Senior Advisor for knowledge transfer.

Bringing nations together

In 2014 CERN celebrated its 60th anniversary with a high profile event at the UN headquarters in New York, entitled "CERN: Sixty Years of Science for Peace and Development". This event received full support from the United Nations, which contributed to the discussion with Secretary General Ban Ki-Moon, the President of the UN General Assembly Sam Kutesa, the President of ECOSOC[3] Martin Sajdik and the former Secretary General of the UN and Nobel Peace Prize laureate Kofi Annan. "I was impressed with the support from the United Nations and diplomatic Missions in New York in organizing such a large event on the other side of the Atlantic. All the doors were open", explains Maurizio with enthusiasm.

Maurizio gives several examples of how the world of science, and CERN in particular, manages international research projects. He refers to "the CERN model" which, in addition to providing the specific scientific



results, also contributes to the development of society and promotes the intercultural dialogue and the peaceful cooperation among individuals from all over the world. An example he refers to is the CERN Scientific Policy Committee, a subsidiary body of the CERN Council (where the 22 Member States are represented). The members of this committee are not appointed by the Member States based on their possible political interest, but are selected among reputed scientists using a co-optation process led by the committee's members. Moreover, some of them are nationals of countries that are not Member States of the organization. In this way, the decisions made and the advice given to the CERN Council do not reflect the interests of one or more countries, but rather that of the scientific community.

Another interesting example is the way the large international collaborations that manage the LHC detectors - which consists of thousands of researchers from hundreds of research institutions - are organized. These collaborations can be successful only

if all the participants work together to reach a common objective, leaving aside their personal objectives. This requires the attitude of sharing results with others, even in a very competitive world like that of particle physics research. A fundamental element in the world of science is trust, as trust creates the ground and possibilities for progress. A term sometimes used at CERN is "coopetition", which combines cooperation and competition, two essential elements in particle physics research.

More and more frequently CERN is encouraged to inform about the "CERN model". Several people, including diplomats and representatives of the civil society, claim that parts of this model could be adopted to simplify decision-making processes and to promote the intercultural dialogue in fields other than science. The aim of CERN is not only to carry out scientific research programmes, but also to bring nations together. Maurizio believes that "science, being a universal language, is neutral and easier to use as a basis for dialogue".

Science for peace

In an interview filmed a couple of years ago Professor Herwig Schopper, a former Director General of CERN, explains why the Organization serves as a model for peace. "During the Cold War, CERN was the only western organization prepared to sign an agreement with the Soviet Union, which became a model for the agreement between the Soviet Union and the United States… I think it takes time, but science can really build trust in political discussions"

Some years ago, Professor Schopper was among the group of scientists, diplomats and politicians who promoted the creation of SESAME[4], a new scientific research organization in the Middle-East whose convention, governing and operational structure, are very much inspired by those of CERN. SESAME, which Professor Schopper refers to as a "CERN child", was inaugurated in 2017. Based in Jordan, it is a scientific institute created under the umbrella of UNESCO, and its member states are Cyprus, Egypt, Iran, Israel, Jordan, Pakistan, the Palestinian Authority and Turkey. Besides scientific research, it also aims to build social bridges in the area and contribute to a culture of peace through international cooperation in science.

At the moment, Maurizio is focusing on CERN's relations with parliaments, mainly through the Inter-Parliamentary Union, to promote the idea that science is important for the sustainable development of society and also for building peace. He was instrumental in setting up the CERN network of relations with other international organizations and to obtain, for CERN, the status of Observer in the General Assembly of the UN in 2012. Thanks to this status - as well as to the presence of a CERN scientist (Fabiola Gianotti, the present Director-General of CERN) in the Scientific Advisory Board to former UN Secretary General Ban Ki-Moon - CERN could more effectively provide its inputs to the UN on science, technology, innovation and STEM education matters, during the preparation phase of the UN 2030 Agenda for Sustainable Development. "We wanted to provide our input and show the role that science can have in promoting sustainable development, dialogue and peace". Supporting STEM education and adequately funding scientific research were the main messages delivered by CERN to the UN Member States during the preparation of the 2030 Agenda. Today the Organization actively collaborates with the UN for the implementation of the Agenda.

"Science itself cannot bring peace", concludes Maurizio citing a quote from Maestro Daniel Barenboim on the role of messenger of peace of the West-Eastern

Divan Orchestra that he and Edward Said founded in 1999: “What it can bring is the understanding, patience, courage and curiosity to listen to others”. In his mind, science - indeed like music – is a universal language driven by trust and mutual understanding that brings people closer together.

Cristina Agrigoroae

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[1] CERN stands for European Organization for Nuclear Research
[2] LHC is CERN’s Large Hadron Collider, the world’s largest and highest energy accelerator
[3] ECOSOC stands for United Nations Economic and Social Council
[4] Synchrotron-light for Experimental Science and Applications in the Middle East