

Megascience forum

The increasing complexity and cost of major scientific projects such as proton colliders, space observatories and space probes amply merit the accolade of 'Megascience' or even 'Gigascience'. With scientific challenges straining the human and financial resources available, the funding and management of such projects cries out for international collaboration.

Such increased internationalism can be built from the bottom up, seeking partners for each new scientific venture, or can climb on existing international infrastructures.

International contacts between scientists are excellent, particularly in the physics and astronomy sectors. The concrete achievements of CERN and other international scientific organizations, often in a glacial political climate, demonstrates what can be achieved. But such pioneering collaboration profits from parallel politico-economic empathy.

In this context, the influential inter-governmental Organization for Economic Cooperation and Development (OECD) has recently established its 'Megascience Forum', chaired by P. Tindemans, Director of the Division of Higher Education and Science of the Netherlands Ministry of Science and Education. 21 of the 24 OECD member states participate in this forum to give advice to their governments. For this exercise, Russia, an OECD non-member state, participates as an observer. Four meetings of the forum have been held so far.

(Founded in 1960, the OECD - which groups nations with advanced market economies - sets out to improve economic and social conditions in its own area while stimulating

relations with developing countries and generally boosting world trade. While its major concerns are economic and financial, science and technology have been identified as areas of particular concern.)

Using expert panels, Megascience reports have been prepared on deep drilling, astronomy, global change research and oceanography. Reports currently under study or planned include synchrotron radiation sources and neutron beams, high energy physics, and supercomputing.

As well as ascertaining future prospects and sounding the views of the scientific community, the Forum wanted to look at existing mechanisms for the selection of elementary particle physics priorities and for international collaboration.

The Megascience Forum also recommended that two additional documents be produced, one placing elementary particle physics in the broader context of nuclear physics and astrophysics, and the other reviewing, from the point of view of governments, possible future mecha-

nisms for selecting priorities and international cooperation. An extensive report is tabled for discussion at an expert meeting in May at the Swiss Paul Scherrer Institute.

The Megascience consultant for high energy physics is former French delegate to CERN Council P. Petiau, while the regional consultants are W. Willis and S. Wojcicki for the US, ECFA Chairman G. Flügge and A. Donnachie for Europe, S. Yamada for Japan and M. Danilov for Russia.

At their first meeting, they agreed on the overall outline for their eventual report, taking into account the extensive work already done in the context of international advisory groups such as ICFA, the International Committee for Future Accelerators.

The concrete achievements of CERN and other intergovernmental scientific organizations are role models for international collaboration.

