New Approaches, New Mechanisms Needed

The OECD Megascience Forum, having made recommendations for astronomy and Earth drilling, now looks further afield. Françoise Praderie, the Programme Coordinator, reports.

The Megascience Forum of the Organisation for Economic Co-operation and Development (OECD) considers at its next meeting in July 1993 the area of global change research, and an expert meeting will be held at the end of this month (March 1993) in Cambridge, Massachusetts (USA). Areas to be reviewed later in 1993 include oceanography and, possibly, neutron sources and synchrotron radiation. The Forum will also be discussing generic science and technology policy issues related to the development and management of megascience, such as national decision-making processes.

The Forum has its roots in a concern of governments of the industrialised countries to enhance international cooperation in megascience. This encompasses classical fields such as high-energy physics, astronomy, and space physics where progress is often made only by using large and even very large facilities, allowing one to perform experiments at the frontiers of a discipline to obtain novel, otherwise unattainable, results. Megascience is now seen to include large-scale programmes which have taken shape in the last 10 years in areas such as the study of the Earth and global change research.

So-called big, often called megaprojects, and large-scale distributed programmes tend to be more and more expensive, governments have initiated policy discussions to encourage a reasonable development of megascience without jeopardising small science. Research ministers from the 24 Member countries of OECD, meeting in March 1992 in Paris, agreed that "there is an urgent need for a process for the exchange of information and for a formal debate on the future of the Member countries at an earlier formative stage on the planning, development and financing of big-science projects and large-scale programmes. This would help promote a coherent approach on a world scale to obtain novel, otherwise unattainable, results. Megascience is now seen to include large-scale programmes which have taken shape in the last 10 years in areas such as the study of the Earth and global change research.

New Collaboration Urged for Drilling

With regard to Earth drilling, the expert meeting indicated that the scientific community is beginning to link the potential results of deep drilling with many scientific, social and economic problems of great and sometimes urgent international concern. It concluded that much greater international cooperation is called for in continental drilling. Although there is already good cooperation in ocean drilling, more visionary planning is needed in view of the large number of new options for the next phase of activities. The Forum therefore encourages the countries — in particular, Germany, Russia, Japan, the USA, the UK, and France — that have been willing to take an active part in furthering global cooperation to continue their efforts. Second, the geosciences community is encouraged to work towards an international strategy for deep drilling that includes long-range scientific plans, the formation of common databases, and an assessment of existing and new facilities. Germany is committed for accepting the scientific lead role in the area of continental scientific drilling, and the Forum looks forward to the planned Potsdam Conference in August 1993 as it represents an important step in developing new institutional forms of cooperation to provide better coordination between participating governments.

The Forum supports the use of the existing Ocean Drilling Programme (ODP) scientific advisory structure as a mechanism for making new long-range plans for exploiting proposed new drilling facilities such as the Japanese Deep Drilling Ship, the French NERIES programme, and the Russian drill ship reinforced for Arctic drilling. But it will be important to ensure clear and direct links between the particular objectives and the scientific objectives of the deep drilling community as a whole.

Further information about the OECD Megascience Forum’s reports on astronomy and on Earth drilling is available from Dr. F. Praderie, Programme Coordinator, OECD, Directorate for Science, Technology and Industry, Science & Technology Policy Division, 2, rue André Pascal, F-75775 Paris Cédex 16. (Tel.: +33-1-45 24 92 89; fax: +33-1-45 24 97 67)

Eurphysic Industrial Workshops

Eurphysics Industrial Workshops aim to promote an interchange between experts from industry, academia and centres on advanced topics. The following have been announced so far for 1993/4:

- EIW-11: Thermal Microsensors — Their Basis, Principles and Applications Jena, Germany; Spring 1994)

Refer to the meetings listing (pp. 31-42) for details, or ask the EPS Secretariat.