

'Big science' forum gets a broader role...

[PARIS] An intergovernmental body, set up six years ago by the Organization for Economic Cooperation and Development (OECD) to act as an international forum for the discussion of issues related to the funding of major science facilities, seems set to be given a new lease of life.

Earlier this year, some member states of the Paris-based OECD were saying that its so-called Megascience Forum might be closed down, partly because it had not been performing what many had seen as its key role. The forum, as its name suggested, was initially supposed to act primarily as a focal point for intergovernmental negotiations on new 'big science' facilities.

But, after a positive review by a four-member external panel, it is now expected

that the forum's work will be continued under a new name — perhaps the Global Science Forum — and with a broader mandate to discuss science policy issues. "We want to keep the word 'forum', but get rid of the word 'megascience'," says Michael Osborne, associate director of the OECD's science, technology and industry directorate.

When the Megascience Forum was set up in 1992 there was intense interest in the potential rivalry between the US Superconducting Collider and Europe's proposed Large Hadron Collider. But the demise of the US facility, and the apparent waning of political interest in other 'big science' projects in areas such as space and fusion research, cast doubt on the forum's continuing validity.

More recently, however, the forum has

successfully shifted its focus to topics of more immediate interest to agencies that sponsor science, such as the terms of access to large-scale facilities and the availability of neutron sources (see box).

Member states are also said to have valued highly the discussions of a working group that led to the proposal to establish a Global Biodiversity Information Facility linking biodiversity databases around the world (see *Nature* 394, 118; 1998).

Those involved in the biodiversity databank proposal say it is the type of activity in which the forum has proved its potential value in bringing together scientists and policy-makers, even though it does not qualify as big science.

Another study, on radioastronomy, played a key role enabling researchers and representatives of the telecommunications industry to discuss potential threats to astronomical observations from portable telephones and other devices.

Osborne emphasizes that the new forum, if given formal approval, will ensure that the topics it studies remain close to the immediate concerns of member governments. "The forum has to be action-oriented," he says. "Governments must not be just concerned about an issue, but under some pressure to do something about it."

One possibility is that the forum will look at techniques for nuclear waste disposal, a hot potato in many parts of the world, particularly now that a failure to resolve the issues thrown up by scientific debates on the safety of disposal techniques threatens what many see as a major potential answer to the problem of global warming.

"We do not want to be just another bunch of bureaucrats complaining that science does not have enough money," says Stefan Michalowski, the forum's executive secretary. "We want to have government people, backed up by scientists, trying to figure out how to pool resources and how to generate material that is useful to them."

Michalowski also points out that the forum allows Japan, as a member of the OECD, to take an active part in such debates (a senior official of Japan's Science and Technology Agency, is its vice-chair). "If Megascience has anything going for it, it is the way it provides a bridge between Japan and other OECD countries."

The final structure of the new body, as well as its precise terms of reference, are yet to be agreed, and such decisions will be taken in the context of a broader reform of the OECD's science activities. But with key member states recognizing the value of a forum at which senior science policy-makers can get together, its immediate future seems assured.

David Dickson

...and warns of need for more neutron sources

[PARIS] The 6,000-strong international community of users of neutron scattering techniques needs to take a longer-term view of future needs for large machines, and be better organized in mustering political support, if it is to enjoy an adequate supply of neutrons early in the next century.

This is a key message of a report produced by the Megascience Forum of the Organization for Economic Cooperation and Development (OECD). It predicts that the world supply of neutron sources will fall far short of future demand early next century unless decisions to build new ones are taken within the next five years*.

There are now around 26 major neutron sources in the OECD countries and Russia. But most will reach the end of their lifetimes between 2005 and 2015, and the report warns that, unless prompt action is taken, the capacity of neutron sources in 2010-20 will be one-third of that available today.

Andrew Taylor, director of the ISIS neutron facility in the United Kingdom, endorses the report's comment that, whereas particle physicists plan ahead for the large facilities on which they

depend, neutron users have been less well organized.

The problem, says Taylor, is that neutron sources are not big machines used by a few, but a shared tool used by researchers from many disciplines, often for short periods. "It has been difficult to get young scientists interested in something that is not going to exist for twenty years," he says.

The report warns that a neutron drought would be a "serious threat" to scientists working in many disciplines, including biology, Earth sciences, engineering and materials science. At present, about 4,000 researchers in Europe use neutron scattering techniques, with another 1,000 in the United States and 1,000 in Japan.

The greater activity in Europe reflects the presence of the world's two most powerful neutron sources, the Institut Laue-Langevin (ILL) in France and ISIS. The United States, which was at the forefront of neutron scattering in the 1960s, has since fallen behind.

But the report points out that the planned US\$1.3 billion national Spallation Neutron Source at Oak Ridge, Tennessee, will allow the United States to catch up with Europe. The project was

approved in the US budget last month (see *Nature* 395, 531; 1998). Japan has plans for similar facilities.

Europe is pressing ahead with plans for a new five-megawatt European Spallation Source, now in the research and development phase. Its proponents hope to complete this by 2003, and to get political backing by 2005 for the machine to come on-line by 2016.

The report encourages neutron users to cooperate in putting together detailed plans for new machines and attracting political support, and says that greater attention needs to be paid to financing adequate instrumentation.

It points out that the ILL reactor provides neutrons to 43 instruments, used by about 1,200 scientists a year from disciplines such as biology chemistry and solid-state physics, whereas the similarly sized source High-Flux Isotope Reactor at Oak Ridge, has only 11 instruments. "New sources attract bright young people and lead to development of new instruments," adds Taylor.

Declan Butler

* Richter, D. & Springer, T. A *Twenty Years Forward Look at Neutron Scattering Facilities in the OECD Countries and Russia*. Available on <http://www.oecd.org/dsti/sti/>