Europe Joins Forces on Condensed Matter

Two new agreements are aimed at coordinating national programs to maintain Europe's lead in neutron research

Paris.

THE research ministers of four major European nations—Britain, France, Italy, and West Germany—recently signed two agreements laying the foundations for a new "club" aimed at linking together their research efforts on the structure of condensed matter. The aim is to help Europe retain its current world leadership in this field.

One agreement involves a formal commitment to a joint 1-year development study for the construction of a European Synchrotron Radiation Facility (ESRF), currently planned to be built in the French city of Grenoble (*Science*, 27 July 1984, p. 391 and 2 November 1984, p. 524).

The second is a memorandum of understanding that seeks to involve other European countries in a similar 1-year study for the development of ISIS, the neutron spallation source built by the British Science and Engineering Research Council (SERC) at its Rutherford Appleton Laboratory in Oxfordshire.

"These new agreements mean that both the ESRF and ISIS are now moving in step with each other," according to Harry Atkinson, the director of science for the SERC. For the past year, SERC has been suggesting in negotiations with its European partners that Britain would support the ESRF in return for a European commitment to ISIS. Previously only France and West Germany had made public commitments to substantial funding.

William Mitchell, the new chairman of the SERC, recently described ISIS as "the most advanced facility of this kind in the world." It is considerably more powerful than a similar facility at the Argonne National Laboratory in the United States, although a machine of broadly comparable power is being commissioned at Los Alamos National Laboratory.

The research ministers of all four countries signed the ESRF agreement, which will provide the framework for official discussions on how the synchrotron radiation facility will be run. In particular, details will be worked out on its relationship with the Institut Laue-Langevin, a neutron research facility based in Grenoble, which is jointly run by the British, French, and West German governments.

So far, only France and Italy have signed the ISIS agreement, under which the British research council hopes to persuade its European partners to share the costs of adding a second stage to the machine and to add a new target station. The second stage is currently estimated to cost $90 million, the same amount that Britain alone has spent on new equipment for the first stage.

Britain may support the European Synchrotron Radiation Facility in return for European support for its neutron spallation source.

Despite repeated British requests, West Germany is still holding back from making any financial commitment to ISIS. This is partly because of a general freeze on funding for new research projects, and partly because until recently German scientists had been hoping to persuade their government to commit funds to a much larger spallation neutron source, known as SNQ, at the Jülich Nuclear Research Center.

However, the German government has recently turned down an initial request for SNQ funding (*Science*, 9 August, p. 536), and British officials are optimistic that they can persuade Germany to become associated with ISIS. They are arguing that any money committed to ISIS would not replace British funds but would pay for research and facilities that would not otherwise come about.

As with the ESRF, discussions will be taking place over the next year on how ISIS can be turned into what Atkinson of the SERC describes as a "full European institution." This could be on the same basis as the Institut Laue-Langevin, which Britain, despite being a latecomer to the project, frequently quotes as one of the most effective examples of European scientific cooperation.

Officials with the research directorate of the Commission of the European Economic Community in Brussels, which played a major role in putting together the "condensed matter package," argue that it was necessary to maintain Europe's dominant position in the use of neutrons for research purposes, a scientific field where it is frequently ahead of similar work in the United States and Japan.

Britain is also hoping that the successful negotiation of the package will soften criticism of Britain for being anti-European for suggesting that it reduce its commitment to another research "club," the European Nuclear Research Organisation (CERN) in Geneva.

The French government, meanwhile, is meeting some domestic embarrassment over a recent decision by an administrative tribunal that it illegally broke a commitment made at the beginning of 1984 to support Strasbourg rather than Grenoble as the site for the ESRF.

Although Strasbourg had been identified as the "official" French candidate, and described as such in a planning agreement signed by the government and the local region of Alsace, it subsequently announced that, together with West Germany, it was backing Grenoble against siting offers from Italy and Denmark.

The government's turnaround was savagely attacked as a "betrayal" by local political leaders—most of whom are members of France's various conservative opposition parties. They suggested it had been made partly as a political favor to win back votes that the socialists had lost in Grenoble, and subsequently boycotted a visit to the region by the French president, François Mitterrand (*Science*, 14 December 1984, p. 1294).

An administrative tribunal in Strasbourg upheld a complaint that had been made against the government's actions, claiming that it represented an "excessive use of power," and that the original commitment therefore still held.

The government has said it will appeal this decision to the country's top legal body, the Conseil D'Etat. Hubert Curien, the French minister of research and technology, said last week that, although refraining from comment on the legal decision, it would be "quite difficult" at this stage to change the proposed location for the ESRF, particularly given the preference of several of its European partners (including Britain) for the choice of Grenoble. ■ **DAVID DICKSON**