

All Member States have benefited substantially but the scientific results identified so far were of mixed value because it is largely the exploratory projects that have been completed (32% of STIMULATION's and 57% of SCIENCE's projects were still running when the panel reported). Support has been concentrated over a broad range of basic research topics (generally in the natural sciences) that are not covered by the EC's sectorial programmes.

Recommendations

The panel recommended emphasizing newly evolving, multidisciplinary fields where multinational collaboration is weak to attract the **outstanding researchers** who one would have expected to have participated. A shift to larger projects in strategic fields also has the potential to make the programme more visible as well as more effective in promoting collaboration. It was appreciated however, that a change in emphasis in this direction implies that the science Directorate needs to play a stronger role in establishing and running a **science policy** and in promoting the creation of centres of high quality research. In the belief that a few, well-funded, state-of-the-art projects are more effective than many smaller grants (that are anyway more acceptable to the richer laboratories), the panel argued that it may even be necessary to go so far as declaring fields of **special interest** with their own budgets. In this way the Commission could also seek applications on certain topics instead of essentially relying upon unsolicited proposals.

As an additional objective, several million ECU should be assigned to collaborative networks for **infrastructure support** which is excluded at present so that visiting scientists from the weaker states can be provided with facilities to return to.

The panel thought that the implementation of the programme should allow maybe 10% of contracts to be extended beyond three years using some form of carefully evaluated **"continuation proposal"**. The grants scheme should also be extended by a few per cent to help distinguished **senior scientists** move between laboratories as

this would be very effective in promoting lasting cooperation in networks and enhancing twinning arrangements. Germany's Alexander von Humboldt Fellowship scheme was offered as a suitable model.

The panel thought that the administrative costs of the two Plans appeared modest and that the 3-6 months needed to assess a proposal reflect the high quality of the selection system. However, several more months passed before research could start if an investigator needed to be awarded a bursary or grant to work on a twinnings or operations project. It was recommended making the programme implementation **more flexible** and responsive by having, for example, maybe 10% of the grants and bursaries awarded directly by major centres.

The increasing workload clearly implies some **reorganization of CODEST** since the committee's relationship with the referees was no longer adapted to the size of the science programme and the attempts to differentiate between undifferentiable proposals. CODEST meeting every three months had little time available for discussions and was faced with poorly defined opinions in referees' reports as their number grew. However, the committee's characteristic feature of being able to provide **independent scientific advice** by involving eminent scientists should be maintained and enhanced. The panel envisaged the creation of sub-committees or panels with perhaps some delineation by subject matter (the **"Referees Network"** scheme — see *Europhysics News* 21 (1990) 99). The idea is that panels reporting to CODEST would rank proposals on the basis of reports from referees, who would still be appointed by CODEST to ensure high scientific standards. CODEST in deciding between proposals would help implement a science policy by recommending "weighting" for the various fields. The overall effect should be to provide a clearer definition of the programme now that it has become large, well-known and multifaceted.

The panel praised the dedicated staff who manage the programme but asked that efforts to reduce the time between the completion of financial forms and the signature

of a contract continue. The introduction of **tailored applications forms** and a **format for proposals** was suggested so as to ensure that complex procedures do not deter some applicants.

Forms common to all EC programmes were introduced recently so as to standardise procedures. They have neither speeded up processing nor enhanced the clarity of the system; they should be modified to permit more scientific content and shortened for those applications seeking small amounts of funds. In addition to **more flexible** application procedures, the panel also recommended making the selection procedure **less anonymous** by publicizing it to the scientific community, and negotiation of contract budgets more easily understood by involving the referees. Arrangements such as seminars allowing face-to-face contact with CEC staff were advised.

As reported in *Europhysics News*, **EFTA** countries can now participate in SCIENCE Plan's twinning and operations schemes. Extending the programme to include the recently democratized countries in **eastern Europe** was also envisaged. The CEC has recently proposed to Council that scientific cooperation with these countries should take place in fields in which the EC will gain advantages (e.g. Hungary is strong in statistics) and include an extension of the 1990-94 Framework Programme for providing the freedom of movement of researchers. Practically speaking, this will involve cooperation with various institutions.

The Future

Some of the panel's recommendations are already being implemented in SCIENCE Plan which has clearly emerged as a very successful complement to the national programmes. There was general agreement among the scientific community that the cooperative activities fulfilled a great need by forging new bonds and strengthening links between researchers. The community anticipates that the expansion envisaged in the next Framework Programme will consolidate the Plan's important achievements.

It has already been announced by the Commission that it intends to offer opportunities for training and mobility to 5000 researchers over the next five years. Grants will be awarded and mainly young post-doctoral scientists will be encouraged to participate in "high-level" research activities at centres of excellence and specialist institutions, or in networks among them.

Delegates of AM's to Council

The two new delegates of the Associate Members to EPS Council, elected following the recent postal ballot, are:

L.F. Feiner, Philips Research (NL)

P. Thomas, JET Joint Undertaking (UK)

The delegates remaining in office are:

W. Schmidt (acting for O. Meyer), Kern-

forschungszentrum Karlsruhe (FRG)

G. Winstel, Siemens, R. and D. (FRG)

SCIENCE Plan Contracts

Bursaries enable young scientists (two-thirds are between 25 and 30 years old) to acquire additional training by participating in research projects in laboratories in EC Member States other than their own. Travel and accommodation are typically funded for 1-2 years at an average level of 20 kECU *per annum*.

Grants are awarded to a laboratory to cover the cost to the laboratory of short or long stays by visiting scientists to enable them to pursue a research project or a specialized high-level training course. About 50% of Fellows are under 30 years old and the average cost of a contract is 40 kECU *per annum*.

Twinnings enable researchers working in advanced fields in two or more EC Member States to pool efforts. Most contracts involve 2-4 partners at an average cost of 150-200 kECU covering all marginal expenses including equipment.

Operations are targeted research projects where a generally multinational and multidisciplinary research team is expected to reach a defined goal by being able to bring together the best expertise in a cooperation network. The average contract costs 500 kECU and as for twinning, covers all marginal expenses.