mittee will discuss proposals in November prior to their submission to Council next March, and if all goes well, launching of the scheme in late-1994. The scheme as it is formulated has the great advantage that it is in principle open to all European physicists at the very beginning without jeopardizing standards. National societies and other bodies will be invited to participate so it may take time to develop a network covering the whole of Europe. Pressure is building up from several quarters, so a start must be made based on a phased implementation.

Seeking New Members

Members speaking from the floor mainly commented on obvious problems or made constructive suggestions. The low participation by young people at EPS-9 preoccupied many. J. Mlynek, who chairs the Quantum Electronics and Optics Division, favoured combining the general conference with a Division conference. H. Schopper (Geneva) endorsed this idea since the formula of having a week-long technical conference with many parallel sessions overlapping with a one-day general conference works extremely well in Germany. The President remarked that the format of the General Conference was not tailored for students but for those settled in their work, so changes may be needed. They could be far reaching since it is necessary to consider moving from a "Society governed by research to one that is governed by society's issues". But more modest possibilities also exist for attracting younger participants. In particular, not enough is done to seek out young new talent capable of presenting top-class work (J. Bohr, Copenhagen).

Young scientists tend to focus on their immediate professional problems so they are naturally drawn to Division events which have no fundamental difficulty in attracting younger participants. But there could be improvements involving the organization of job markets (J. Mlynek) — mentioned earlier by the President — and the scheduling of parallel sessions. Such changes are crucial because the Divisions remain the most important avenue for attracting young people into the Society (D. Sette, Rome). As it is the Divisions' natural rôle to look after young scientists (R.A. Salmeron, Palaiseau) additional inducements should be developed while ensuring that young people are treated as full participants (*e.g.*, they receive the proceedings). But one should not overdramatise the situation (R.A. Ricci, Legnaro) because even national general conferences seldom have more than 30% of participants who are students. The question is essentially cultural and the place to start acting is in schools.

There were a few remarks concerning membership. D. Sette felt that the Associate Members should be represented at the General Meeting. Indeed, G. Tibell (Uppsala) wondered why the meeting was restricted to ordinary members as the distinction between national society and EPS members is unclear. The Executive Committee has thought long and hard about ways to enhance the involvement of national society members and to make them more aware of the Society's work. The outcome will be a proposal to Council next March, the basis of which was strongly endorsed the day before by national society Presidents (see p. 184).

Europhysics Notes

● Research Council Mission Clarified

A report by the UK's minister of science published in May signalled major changes in the country's government-supported research councils with the creation of two new councils (Engineering and Physical Sciences Research Council — EPSRC — and Particle Physics and Astronomy Research Council — PPARC) to replace the Science and Engineering Research Council (SERC) next April. The SERC Chairman stated that the SERC was disappointed that the number of Councils had been increased, that changes had been concentrated in part of the system, and that there was no indication of increased resources to help meet new challenges, especially in applied research. But, in general, the SERC supported the moves as the new structure will continue "... to develop capabilities in strategic research related to social and industrial needs."

A Boundary Study recommended in July that all physics (including nuclear structure physics) other than particle physics, astronomy and astrophysics, and solar system science should be allocated to EPSRC. The study also partially adopted SERC's suggestion to have the SERC's two large laboratories (Rutherford Appleton and Daresbury) under one Council by recommending placing them, in the long term, under common management by the Office of Public Service and Science to form a new institution working for all the Councils and able to sell services. In the short term, the two labs would remain EPSRC's responsibility. EPSRC should also take over the management of supercomputing from the SERC while the Advisory Board for the Research Councils (ABRC), which interfaces with all the Councils, studies future siting. (The ABRC supervised the first stage of a pioneering, and highly successful, programme in high-performance computing that led to the installation of a Cray Y-MP machine at Daresbury in 1992. Some 5-6 M£ is now available for a second stage). PPARC will be responsible for CERN and ESA subscriptions and EPSRC for the ESRF and the ILL.

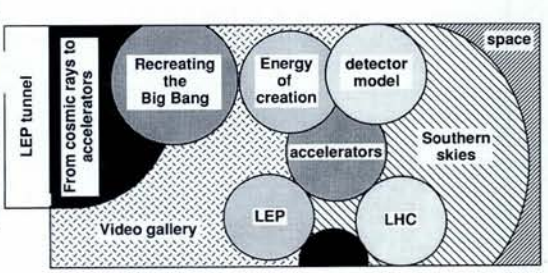
Nuclear physics initially found itself in an ambiguous position. In a survey by the SERC's Nuclear Physics Committee, the UK community regarded itself on scientific grounds as carrying out fundamental research with strong links to particle physics so it perhaps belonged in PPARC. But in the aftermath of the closure of Daresbury's Nuclear Structure Facility last year (which many felt was unnecessary and unjustified), and in view of the community having clearly identified radioactive ion beams (RIB's) as the top priority for the future, G.C. Morrison, the committee's chairman, sent a letter recommending a transfer to EPSRC "on political and managerial grounds". Central to the UK commitment is the Rutherford's 1.6 M£ RIB test-bed, endorsed by NuPECC in a recent report [*EN* **23** (1993) 80], which aims to demonstrate that powerful RIB's can be produced at a high-current accelerator (ISIS) for the first stage of a future European high-intensity RIB facility.

It seems that the Boundary Study had never been in any doubt that nuclear physics would go to EPSRC as this had been the minister's intention all along. The nuclear community was concerned that the emphasis on basic research would be less in EPSRC than in PPARC because the words ".... but whose main objective is the improved understanding of the concepts and phenomena underlying physical phenomena and their consequences." were omitted from EPSRC's mission statement — something that prompted Alun Jones, the Chief Executive of The Institute of Physics, to call for EPSRC support for basic aspects of all the physical sciences. The extent to which this happens remains to be seen. However, it is unlikely that the nuclear community will be alone in carrying out fundamental work, so while ensuring that scientific collaboration with PPARC remains effective, the nuclear physicists aim to develop links with other areas of EPSRC by mainly building upon potential uses of the RIB facility.

● Human Capital Last Chances

The EC's Human Capital and Mobility programme has officially released the results of the second selection rounds for Large Installations, Institutes hosting fellows, Networks, and Euroconferences. The "Individual fellowships"activity has completed the fourth selection (lists are not released). Many details could be obtained informally when the selections finished back in June before the lengthy written procedure took over to formalise the decisions. So the information may not be so "hot" for some. Postdocs and graduates interested in a fellowship at one of the institutions selected by the EC must contact

MICROCOSM at CERN (the building is partly hidden by trees) is possibly the leading permanent exhibition sited at a major European facility. Officially proposed in 1988, it had welcomed 100000 visitors up to its inauguration on 8 September. The floor plan hopefully illustrates how an imaginative glimpse of what particle physics is all about was created with help from local authorities, other laboratories and industry.



the institution, which then communicates its choice to Brussels. It is also often useful to contact network coordinators as they may have positions open. Third, users of facilities may want to apply with an Installation for HCM support. The updated lists of Institutions selected to host fellows, Networks and Installations are available by email (send a short message to EPNEWS@CERNVM.CERN.CH).

Future closing dates for selections are: Installations (none); Institutes seeking selection to host fellows: 19 Nov. 1993 (final); Individuals applying to Brussels for fellowships: 15 Nov. 1993, 11 Feb. 1994; Individuals applying to Institutions selected to host fellows: 28 Oct. 1993; For Networks: 15 Nov. 1993 (final); Euroconferences: 15 Nov. 1993; possibly Feb. 1994. So HCM is starting to wind down and now may be the last opportunity to apply for HCM support until a last-minute launch of the follow-on at the end of 1994 at the earliest.

ELECTRONIC & ATOMIC COLLISIONS

A new Board of the EAC Section was voted in at ICPEAC-18 in Aarhus in July. However, former members were retained in the list published in last month's Directory. The Board members are:

N.O. Andersen, Copenhagen (Chair.)
J. Comer, Manchester (Sec.)
F. Gianturco, Rome
R.K. Janev, Vienna
G.M.V. Kroesen, Eindhoven
A. Lahmam-Bennani, Orsay
A. Müller, Stuttgart
A. Niehaus, Utrecht
A. Umov, Moscow

● Fusion Review before EC Entry

Austria's Minister for Research and Technology has called for an assessment of fusion and nuclear safety by the Austrian Academy of Sciences before a final decision is made on entry to the European Community. Entry requires Austria to contribute to EURATOM's basic programme so the question is how Austria would profit in view of the government's policy of promoting a nuclear-free Europe.

● Mobility ICP's Too Small

J. Gutierrez, representing the ERASMUS Bureau, spelt out the European Community's objectives regarding the ERASMUS Programme's Inter-University Cooperation Programmes (ICP's) at a meeting in Sienna last month of ICP coordinators in science. The main message is that too many ICP's have too few participating institutions and too few students per institution which lead to high overhead costs (students and staff tend to be transferred between smallish groups with similar interests). ERASMUS would like to have about 30 institutions in each ICP instead of today's average of 4-5. For the 1993/4 academic year, natural sciences have 8% of the ICP's and 6% of the students, with 7.7 institutions per ICP. Business management, by contrast, has a massive 20% of the ICP's. Physics is well placed with 47 ICP's (23% of the natural science ICP's), 8.7 institutions per ICP, 200-250 institutions taking part, and all ICP's except one involving student mobility. The EPS mobility scheme which begins this month with over 100 institutions (albeit from both inside and outside the EC) thus represents a broad, open arrangement of the type ERASMUS is seeking. ERASMUS may be split up into regional bureaus but, contrary to earlier reports, it will

almost certainly be kept separate from the EC's Human Capital and Mobility programme which mostly handles postdocs and more senior scientists.

● National Debate Launched

France's minister for higher education and research has launched a national debate to "define the main directions... for the coming years". Involving widespread consultation with a report ready for Parliament next spring, it comes 11 years after a predecessor of another political persuasion did much the same thing. Judging by the number of major French undertakings in science, there will be plenty to discuss.

● Preprint servers and W3 expanding

CERN has announced that it will start an electronic preprint server/bulletin this year. SLAC already has 70% of its preprints on a server and Los Alamos is running 6-7 servers on maybe 15 topics (copies of some are running at the ICTP in Trieste). There is some discussion now on ways to standardise files submitted so that formatted pages can be distributed automatically. Meanwhile, a RARE report has recommended that RARE should concentrate on World Wide Web (W3) as the information retrieval system on Internet (others are GOPHER and WAIS), notably because the number of W3 users is growing fast (there are now ≈ 100000). W3 allows information residing in different computers around the world to be linked. It uses an Internet transfer protocol (Hypertext Transfer Protocol, HTP) to negotiate transfer representations between client and server, and all W3 compatible programmes must handle Hypertext Mark-up Language (HTML) as the format for providing linked information. What ones sees on the screen in W3 are highlighted keywords which can be "clicked" to pass to the next level. Further information is available from INFO.CERN.CH.

● US Executive Secretaries Come and Go

Reports in the press that Richard Werthamer, the Executive-Secretary of The American Physical Society, was forced to resign in July were denied by the APS. It seems there is some misapprehension of how the APS governs itself. To ensure that senior elected officials and not the most senior APS staff control policy, three staff members (the Executive Secretary, Treasurer and Editor-in-Chief) are co-equal on the Executive Board and answerable to it. If an operating officer is at odds with the Board, then he or she must in the end comply or resign. Completely unrelated is the appointment of Marc Brodsky from IBM as the next American Institute of Physics chief operating officer to replace Kenneth Ford who retires after 7 years in the job.

● Institute Ratings Affect Budgets

The Czech Republic rated its Academy institutes on a scale of I (high international level; to be developed) through II (allow to develop on certain conditions) to V following a series of international evaluations at both the Academy and institute levels. Jan Kaczér reports that those related to physics ranked well: Category I includes the Institute of Physics and institutes for physical metallurgy, nuclear physics, theory of information, and geophysics; Category II include institutes for

25th Anniversary of EPS

Gilberto Bernardini, the first EPS President, speaking at the opening ceremony of the EPS-9 General Conference in Florence on 10-14 September to celebrate the Society's 25th anniversary. He is shown here (on the left) with Renato Ricci, the President of the Italian Physical Society and the Conference Chairman. A full report of the conference will appear next month.

physics of the atmosphere, informatics, and radio-technology and electronics. Nonetheless, budgets cuts in 1993 are fairly severe (10-15% for Cat. I; 15-25% for Cat. II).

Poland introduced a similar ranking about 2 years ago of 850 university departments and research institutes, and almost all the Academy's 83 institutes ranked A or B. The A's altogether receive two-third's of the available government funding (which has shrunk by two-thirds in 5 years) and C's and D's receive almost nothing.

● Incoming Student Numbers Decrease

M. Schwoerer reports in *Physikalische Blätter* (September 1993) that while the numbers of physics diplomas and Ph.D.'s awarded in Germany continue their steady increase, the number of physics graduates going into teaching doubled in 1992/3 from a fairly constant 250 for 1988-91. Disturbing is the continuing decrease (6% in 1992/3) in the number of students taking up a university first-degree physics course (the number peaked in 1990/91 with 9800 students). It is too early to say if the decrease in 1992 of 9.6% in the number of UK university physics admissions represents a similar trend (the number graduating seems fairly constant at ≈ 2100). However, government data showing that the number of school children studying sciences to a pre-university level dropped by about 10% in 1992/3 suggests there is a trend. [UK data communicated by P. Diamond, IoP, London.]

● A Week of Scientific Culture

A. Ruberti, the European Communities' Commissioner for Science and Vice-President of the Commission of the EC, has launched the first *European Week for Scientific Culture* (22-27 November 1993) stressing public awareness and the European dimension. Activities run by four facilities close to physics (ESA, ESRF, CERN, JRC) and the CEC's Fusion programme are among the 22 distinct and seemingly unrelated projects.

● Some Compensation in Sight

The Italian government announced last month a significant cut in the science budget which means that the national nuclear research institute (INFN) will make a more rigorous selection of CERN experiments, postpone building an exotic beam facility at the Legnaro laboratory, and reexamine possible participation in the KAON project at TRIUMF in Canada and in a future European electron accelerator presently under study. Final decisions should be announced by December. Meanwhile, a law to establish the inter-university materials consortium (INFM) as a fully-fledged national institute is passing through Parliament under an accelerated procedure to allow it to receive start-up funds already set aside in the budget. The funds include the ESRF, Grenoble, contribution and funding to complete the construction of the Elettra synchrotron in Trieste. Budget reductions will be compensated in part by EC infrastructure funds that can now be spent on routine expenses and not simply on developing facilities. Research ministers (and not finance ministers as in the past) in the southern EC countries are currently finalising proposals.

● SSC Management Issue Neutralised

The US Senate voted down a Congress amendment to the energy appropriations bill to kill the Superconducting Super Collider. It seems that allegations of mismanagement at the SSC lab in Texas were neutralised when the Senate passed its own ammendment calling for a halt in 90 days unless the Secretary for Energy certifies that the management problems have been addressed. So the bill now goes later this month to a House/Senate conference committee (like last year). Supporters are hopeful that the full 640 M$US sought for fiscal 1994 will be agreed.