European Physical Society in 1997

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European Physical Society
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The move to Mulhouse

The current year starts with the European Physical Society (EPS) having undergone significant changes. The Secretariat of EPS which was for almost 30 years located in Petit-Lancy, Geneva, Switzerland, has relocated to Mulhouse, Alsace, France. This move was effected on Tuesday, 7 January, 1997, with the arrival at the Technopole de la Mer Rouge, Mulhouse, of a lorry containing office furniture, a computer, and well over one hundred boxes of papers and books. This material has been distributed in our new offices, and furniture and additional computers purchased. Within two weeks of arriving we were beginning to look like the Secretariat of a major scientific organisation.

Mulhouse, the new home of the EPS Secretariat, is a small attractive town in the South of Alsace, in the Department of Haut Rhin. A first reference is found to the town in the year 803; however, it was in the 12th Century that the town gained a measure of independence, becoming a private fief of the German Emperor Frederick I (Barbarossa). It was the grandson of Barbarossa, Frederick *(stupor mundi)* II who granted the town of Mulhouse the right of self government which it retained well after the end of the Middle Ages – even though the town had become republican in sentiment by this time. The town of Mulhouse, to preserve its independence, made an alliance with the nearby Helvetic States which lasted until 1789 when the independent state of Mulhouse was absorbed by revolutionary France. The town's prosperity was based on textiles which remained the case until relatively recently.

Mulhouse is situated in a unique geographical position – being only a few kilometres from two neighbouring countries. Basel, in Switzerland in only about 30 kilometres from Mulhouse, and the Rhine is about 12 kilometres from the town. Being situated in such an international corner of Europe has fostered the development of a multinational spirit, manifest in the languages one hears spoken in the town and its university. Likewise, the airport which serves Mulhouse is called the Euroairport as it also serves Basel and Freiburg im Breisgau.

It is always difficult for a new team to take over an operation, such as running the EPS Secretariat, which has been successfully run by other people for many years. However, it is hoped that the new group in Mulhouse – the Secretary General Designate, Dr. Jeffrey H. Williams (e-mail: *j.williams@univ-mulhouse.fr)*, the Editor, Mrs. Christiane Schneider (e-mail: *c.schneider@univ-mulhouse.fr*), two Administrative Assistants, Madame Christine Bastian and Madame Ann Heuberger and a part-time Accountant, Madame Pascaline Padovani, will after the inevitable early problems, be as professional as the group in the old Secretariat in Petit-Lancy. For the moment, the new Secretariat is situated on the edge of Mulhouse in a Technology Park. We occupy a suite of offices which is linked electronically to the nearby Mulhouse campus of the University of Haute-Alsace. The University has been instrumental in accommodating EPS in these offices, and providing some assistance for the administration of the Secretariat.

The coordinates of the new EPS Secretariat are as follows:
European Physical Society
34 rue Marc Seguin
F-68060 Mulhouse, France
Tel: + 33 389 32 94 40
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The move to Mulhouse was approved by Council in 1996 with the adoption of a Strategy Plan which it was hoped would focus the activities of EPS, improve the efficiency of the on-going activities of the Society and allow the Society to undertake new activities on behalf of its members and the wider society. The political and economic conditions are changing ever more rapidly and an organisation such as the EPS has to demonstrate its vitality by adapting to the changing society. Otherwise its very existence and role might be called into question. It was felt that there was a need for EPS to invest in efforts to convince the general public of the importance of physics for society and its wealth-creating potential, to assist in the development of improved lines of communication between physicists in academia and industry, to encourage young physicists, and to assist physicists in Eastern European and developing countries.

The first steps in this new programme of assistance had already been made with the submission of proposals from the Interdivisional and Action Groups to the Executive Committee. However, 1997 will be the first year when funds will be available to put these proposals into action. It is hoped that useful and visible results will be forthcoming from these initiatives.

It has also been decided that the interaction between EPS and its Divisions should be strengthened. The Divisions represent the direct link with European physicists and they are the community for whom the EPS exists and with whom the EPS hopes to be able to undertake its work in promoting physics. It is foreseen that a meeting of Division Chairmen will be arranged to begin a discussion about the future interactions between the Divisions/Sections and the new, more responsive EPS. A similar dialogue will be opened with the Associate Members.

Action Plans

Interdivisional Group on Physics for Development (IGPD)

The Interdivisional Group on Physics for Development was established to assist in the development of research and training of physics in less-industrialised countries by creating links to active research groups in universities and institutes in more developed regions, for example, Northern Europe. Following this directive, IGPD has organised several projects for

1997, most of which are joint activities with other Groups, Action Committees or Divisions of EPS.

**Workshop on Renewable Energies* – a school workshop on Solar Energy for the Mediterranean Area which is being organised jointly with the Action Committee on Physics and Society. This meeting will be held in Portici, Italy, where there is a research laboratory on Solar Energy (ENEA).

**Southern European School* – the 3rd school in this series is being organised jointly with the Division of Condensed Matter in Porto, Portugal, in June, 1997.

**Catalogue for Physics and Physics Related Groups in North and West Africa* – a catalogue is being prepared to document active research groups in this part of Africa both to facilitate North-South cooperation and to stimulate regional collaboration. With this catalogue, it is hoped to be able to connect local universities with European universities or technical schools with appropriate complementary interests. Various bilateral programmes already exist for linking research groups in north and south Africa; however, physics is not foremost amongst them.

Interdivisional Group for Applied Physics and Physics in Industry (IGAPPI)

Since 1987 IGAPPI and its predecessor, ACAPPI, have organised 14 Europhysics Industrial Workshops aimed at specific technologies considered to have reached the point of potential commercial exploitation. IGAPPI has a particular role within EPS in issues of professional physics: furthering links between EPS and physicists in industry, seeking closer contact with the world of commerce and care for the next generation of physicists, viz. providing information or advice on career development for young physicists.

For the immediate future, IGAPPI plans to organise further meetings in the Industrial Workshop series with likely topics to include: ion beam assisted deposition, physics of polymer devices. There will also be a conference on Physics Teaching in Engineering Education, Copenhagen, 4–6 June, 1997, cosponsored with Societé Européenne de la Formation des Ingénieurs.

The Future of the Interaction between Industry, Universities and Research Institutes – This was the title of a meeting held at the Université de Haute-Alsace, 29 November, 1996, organised by IGAPPI for EPS. Indeed, this meeting was the first such sponsored conference organised by EPS in the town which now hosts its new headquarters. Twenty-one representatives from Europe's industrial and academic research communities explored the problem in an interactive round-table discussion. Many of those who took part in these discussions were "boundary crossers" – having worked in both industrial and academic environments.

This forum, of a somewhat experimental nature, was initiated by the EPS in response to widespread concerns regarding the relationship between industry, universities, and research institutes. The meeting was intended as an informal think-tank devoted to discussing present trends in the evolution of the career of physicist and current and future career opportunities for physicists. Some of the questions addressed issues raised by present circumstances which included: the widespread abandonment of basic research in industry, the requirement for short-term benefits in applied research, and the reluctance of industry to work in partnership with universities. However, even against this rather gloomy picture of retrenchment in applied physics research in Europe, there are optimistic signs of university-industrial collaboration and these were also discussed. For example, the increased out-sourcing of research, which should present fresh opportunities for collaboration, the steady growth of innovation centres within universities, and greater clarity in matters of intellectual property.

Prof. Herwig Schopper, President of the European Physical Society, opened the meeting by highlighting the importance of interacting with industry, and the need for mechanisms to encourage an exchange of qualified personnel.

Dr. Steward Bruyn described how leading players in the telecommunication industry, such as Nortel, increasingly need to tap sources of external research knowledge which they do not already possess. Basic research and development in universities is encouraged by industry as an investment in the future "but it should be paid for by Government" (Dr. Allan de Monchy, FOM and ex-Shell). Dr. Francois Buchy, Thomson CSF, proposed working with universities to understand critical corporate technologies. "The influence of big industry must be balanced by other forces to promote renewal" (Prof. Olle Nilsson, Ericsson), and a new European Union-wide competition to fund fundamental research was proposed.

Prof. Claude Weisbuch, Ecole Polytechnique, Palaiseau, warned that "universities could not be the Bell Labs of the 90s", and that Governments could not be relied on to support Europe's valuable university research resources. Dr. Kostas Glinos, European Commission (DG3, Long Term Research), suggested that human resources, rather than patents, are increasingly the key to industrial competitive advantage. The challenge is how to reconcile the different objectives, and cultures, of the academic and industrial communities. Business innovation centres were attempting to generate the entrepreneurship which was lacking in some universities.

Prof. Vincent McBrierty, Trinity College Dublin, Ireland, proposed knowledge as a new form of equity, and described the dynamic innovation focus of Trinity College Dublin, with examples of successful industrial interaction, patent exploitation and research-driven startup. "Culture Bridging" was succeeding in the Universities of some smaller EU countries where Small and Medium-sized Enterprises (SMEs) are crucial. Prof. Markus Pessa, Tampere University of Technology, Tampere, Finland, who has a spin-off company based upon his research, recommended that laboratories aim for ISO 9000 certification to attract industrial interaction. "How different the situation in different countries is" commented an ex-Mercedes Benz researcher, Prof. Fritz Schneider.

However, Dr. de Monchy, the Netherlands, commented that "there is too much technology push, and more market pull is needed". Physicists undertaking research were compared to pigs looking for truffles, and getting knocked out by the farmer once they find them. A review of undergraduate and postgraduate courses was called for by Dr. Peter Melville, Institute of Physics, London. People provide the most efficient technology transfer mechanism according to Dr. Nicola Minaja, Studio Acqua. The innovation process also requires more of a "risk culture" and improved management of knowledge resources.

Nevertheless, corporate laboratory downsizing was creating new opportunities for out-sourced research and development, which would lead to a global research market where the competitiveness of universities will become important.

Not surprisingly, many paradoxes and differing points of view were revealed during the discussions. Such complexity will

of necessity preclude simple answers. Indeed, a contingency approach may be needed to deal with differences between large and small companies, and countries.

It became apparent that for industry the ideal research world would involve external knowledge and expertise for applied research projects, and basic research supported by Government in universities. However, it was pointed out that relying implicitly on Governments to support basic research should be cautioned against. But, when all is said and done, industry will always rely on people recruited from universities.

Even with the deprecations of recent years, physics graduates are still highly valued in a variety of industries. However, it was felt that university research training could benefit from some redesign, for example, management courses may need to be included. It was repeatedly pointed out that people provide an effective technology transfer mechanism for industry and spin-off companies, but the effectiveness of this transfer requires improvement; interface expertise is needed. Indeed, it was felt that people may be more relevant than intellectual property in the commercialisation of physics.

It was the general feeling of the meeting that: a meeting report be submitted to journalists, participants and policy makers; recommendations from industry be submitted to EPS; consideration be given by EPS to initiating systematic research into the needs of industry; consideration be given by EPS to further events to tackle the research interaction problem.

The European Physical Society has a commitment to improve and facilitate the interaction between industry, universities and research institutes. The importance of this initiative, and the appropriateness of the format within which the discussions took place in Mulhouse, were acknowledged by the participants. The meeting succeeded in highlighting the complexity of this problem, and raised the awareness of the importance of finding a solution. Even though it was felt that a good start had been made, much work remains to be done before distinct proposals can be put forward to improve the links between the different environments within which physicists work. For a report on this meeting, see the article by Dr. Peter Melville of the IOP, London, later in this issue of *Europhysics News.*

The relationship between academic physicists and physicists in industry evidently needs to be improved. The ties between research and technology have become closer and will be decisive for the future economic competitiveness of Europe. EPS will certainly strive for closer cooperation with physicists in industry and academia, seeking to discover new ways in which to give support to both groups of physicists. However, industry and academia are not the only worlds where physicists are to be found and which have very different demands on their respective staff. For example, the relationship between physicists working at large facilities and in smaller science projects could also be improved by a better exchange of information.

Hôtel de Ville, Place de la Réunion, Mulhouse. (*By kind courtesy of the Tourist Office, Mulhouse)*

East-West Task Force (EWTF)

The EWTF consists of delegates of National Physical Societies from central and eastern Europe and three officers nominated by the EPS Executive Committee. Each year, the representatives of about three countries will be contacted personally by a representative of EWTF concerned with the identification of the problems experienced by physicists in these countries and how solutions to these problems may be sought.

Register Commission

The Register Commission supervises and coordinates the Monitoring Committee and is responsible for the choice of candidates who are entered in the Register of persons holding the qualification Eur Phys. One of the essential future tasks for the Register Commission is to find ways of obtaining recognition and status for the Eur Phys qualification beyond EPS, and in extending its adoption within the physics community. In this context, the relationship between EPS and the administration of the European Union will be essential. However, one must also seek to identify a means of progress within those countries which do not belong to the European Union.

Action Committee on Physics and Society (ACPS)

The Action Committee on Physics and Society proposes to concentrate its efforts in two important areas. These are the care of the next generation of physicists and public awareness and information dissemination.

The EPS needs to provide a service, particularly to its student, and recent graduate members, to assist them in planing their careers. Some of the National Societies provide such assistance, but there is certainly scope for a pan-European approach. Students and recent graduates need to have access to notices of vacancies, and employers need to be made aware of graduate availability not only in their own country, but across Europe. Some provision of this kind already exists, but it is not well coordinated. However, in order to formulate more efficient plans, more information is required on the present situation with respect to the mobility of graduates and on what exactly limits this mobility.

What is the actual pattern of employment of physicists across Europe? With regard to this type of question, the results of the above-mentioned symposium, *The*

Future of the Interactions Between Industry, Universities and Research Institutes, Mulhouse, 29 November, 1996, are invaluable. What are the needs of employers, and how effective are the universities in fulfilling these needs? In order to address these, and related issues, ACPS proposes that EPS appoint a Student Liaison Officer in the Mulhouse Secretariat.

European Mobility Scheme for Physics Student (EMSϕS) and European Physics Education Network (EUPEN)

EMSϕS – still a successful enterprise

The academic year 1995–1996 saw another increase in the number of physics students benefitting from a mobility grant to stay at one of the institutions taking part in the Mobility Scheme of EPS. Whereas during the starting year 1993–1994, 103 students were involved in moves with 121 institutions taking part, these numbers increased to 253 students in 1994–1995, involving 161 institutions; last year there were 353 students moving between 174 institutions. In the current academic year, about 300 students have begun their studies abroad under the Mobility Scheme, and this number will grow when the Spring semester of 1997 begins.

At its last meeting in Seville, 11 September, 1996, the Mobility Committee considered the future development of the successful Mobility Scheme of EPS. Despite some rumors to the contrary, EMSϕS should be able to continue to exist as the open exchange scheme under the new EU programmes. Of course, the problem of obtaining grants for student mobility has been transferred, for the European Union countries, from the previous ERASMUS programme (ICP handled most efficiently by the ERASMUS Coordinator Prof. H. Ferdinande, Ghent, to the "Institutional Contract" under SOCRATES, where each local coordinator has to convince his/her university administration of the necessity to include EMSϕS into the contract. In this context it should be made clear that the SOCRATES programme, although it does not explicitly mention them, certainly has to rely on local, dedicated coordinators for effectively counselling outgoing and incoming students; otherwise no reasonable student mobility can be achieved. Information on the fate of the Institutional Contracts will probably not be available before May 1997, and therefore the number of mobility grants for 1997-1998 is not known. In addition, Switzerland represents an anomaly in the European Union landscape, but here special arrangements have been initiated to continue the participation of Swiss partners in the scheme.

The three TEMPUS MJEPs involving Hungary, Latvia and Poland will terminate with the academic year 1996-1997. The two, restricted, MJEPs with Lithuania and Romania were envisaged to run until 1997-1998, but funding is not yet certain beyond 1996-1997. In any case, no prolongation of the JEPs will be possible, and, in addition, no further Mobility JEPs will be funded. Starting 1998-1999, some of these countries may be included in the SOCRATES programme, but whether the necessary national funding can be provided is an open question. Finally, the availability of EPS-SOROS grants has terminated by the end of the year 1995-1996. The Mobility Committee hopes that despite these adverse conditions ways may be found, and it is actively looking for them, to continue the Mobility Scheme with active participation of our partners.

In connection with the European Physical Society moving its Secretariat, that hitherto handled all EMSϕS matters, from Geneva to Mulhouse, it has been decided that from 1 January 1997 a new EMSϕS Secretariat will be established at the University of Ghent, Belgium. From this date, therefore, all EMSPS-related correspondence should be addressed to Mrs. Anne Petit, EMSPS Secretariat, University of Ghent, Proeftuinstraat 86, B-9000 Gent, Belgium; Tel: +32 9 264 6539, fax: +32 9 264 6699, e-mail: *anne.petit@ rug.ac.be.*

For more information on the Mobility Scheme, the WWW version of the EMSPS database may be viewed under **http://-info.mcc.ac.uk/emsps/.** We encourage those who are interested in the work of EUPEN to look regularly at the EUPEN home page which is continuously updated. The URL of this homepage is: **http://allserv.rug.ac.be/~hferdin/eupen/.** In the near future you will find there a copy of the final application to SOCRATES and a copy of the ERASMUS in SOCRATES Thematic Network Financial Agreement 1996/97. Indeed, the administration of EUPEN would appreciate receiving reactions and comments on those pages in order to improve them.

Elections to the Board of the Plasma Physics Division

The term of office of the present Division Board will end along with the mandate of its Members by the end of the current year. The following Board Members are eligible for re-election, according to the bylaws:

V. Golant (St. Petersburg)
M. Liberman (Uppsala)
E. Manso (Lisbon)
U. Schumacher (Stuttgart)
F. Allaido (Rome)
C. Alejaldre (Madrid)
R. Koch (Juelich)
J. Hugill (Manchester)
H. Winter (Vienna)
D. Gresillon (Palaiseau)

The Chairman seeks nominations for a new Board (which should have 12 elected members) and asks that they should be sent before 1 May, 1997, to Mrs. M.A. Coopmans-van Basten, Department of Applied Physics, Eindhoven University of Technology, Postbus 513, NL-5600 MB, Eindhoven
Telefax: + 31 40 244 5253;
e-mail: ria@usrs.ni.phys.tue.nl

Prof. Frans W. Sluijter
PPD-EPS Chairman

Bank Account of the European Physical Society

The bank account of the EPS in France has been established at:

Banque Nationale de Paris (BNP)
17a, Avenue Auguste Wicky
68100 Mulhouse
France

To facilitate the ease of future financial transfers, and limit the extent of any Bank Charges, for example, when Individual Ordinary Members are paying their membership dues, please ask your bank to transfer money, by electronic bank transfer, directly to our account in the BNP (30004 00440 00010024230 76).