

been less in the headlines over the past six months, progress towards characterising these new materials and inventing others was still going on at a rapid rate and any survey was likely to be out of date in a few months' time.

Promise of new things to come but not yet with us from the heavy ion experiments at CERN with oxygen and sulphur ions striking a tungsten target were evoked by H. Specht, while F. Willeumier took us through the evolution from the first synchrotron radiation experiments in 1963, when simple absorption measurements in noble gases were the latest thing, to the complexity of today's two electron-three photon transition studies. On the horizon was the 6 GeV ESRF machine being built in

Grenoble (for which site clearance had now been completed) which would give us an increase in brightness of orders of magnitude.

G. Salvini intrigued with his inversion of the usual connotation given to 'pure' and 'applied' physics by pointing out that high energy physics in its use of solid state detectors was the applied end of pure solid state research. Indeed physics was interactive, and techniques — both practical and theoretical — developed in one field could find outlets in other fields. Yu Gulyaev expanded on this theme by describing the growing importance of the techniques based on physics used for the dynamic mapping of the physical fields of biological objects amongst which SQUIDS for

mapping magnetic fields was a topical example.

And joining both physics and biology, H. Haken reviewed the advances that had been made in understanding the principles behind self-organisation — irrespective of the nature of the organism in question. It seemed that a few degrees of freedom were behind the 'instinct' that seemed to control the apparently widely disparate ordering in these and other fields of experience.

Altogether a most fitting and rewarding two days, punctuated by a banquet held high in the adjacent hills and featuring local food and wine, a little music, a few speeches and a great deal of bonhomie.

E.N. Shaw

EPS Under the Microscope

At its meeting in Pisa in June, the Executive Committee had before it a paper drawn up by Dr. Derek Stacey, one of the nine delegates to Council of the Individual Ordinary Members. He had taken the initiative in Dresden to bring together the IOM delegates present to talk about their role in the EPS and that of the IOMs. Below is a condensed version of the original paper that emerged from that discussion which took its themes from the publicity leaflet of the EPS promoting the Society. It is followed by a summary of the first reactions of the members of the Executive Committee drawn up by the acting Secretary Dr. Walter Merz.

Why don't more physicists join the EPS?

What do members perceive to be the value of membership?

These are crucial questions for the EPS, since to remain viable it must have a thriving membership which plays an active role in the Society's affairs. The questions were discussed — not, of course, for the first time — at the EPS Council Meeting at Dresden in March following which the delegates of the Individual Ordinary Members present prepared a discussion document examining the relationship between the EPS and its IOM's and suggesting ways in which this relationship might be improved.

Preparing it, however, presented a major problem — which was itself at the heart of the issues we were trying to address. We were working in the dark; we had simply to guess at the attitudes of IOM's, there being no ready means of consultation. Although we went ahead and produced the document, both the Executive Committee and the delegates consider that the best way forward is to have the issues widely debated.

The European Dream

There can be little doubt that most of us joined the EPS to further the cause of the European Dream — the vision of a united Europe, with physicists playing

their part in a Society which transcends national barriers. The outgoing President at Dresden, Professor Buckel, expressed the view that the question for IOM's is not "What do we get out of the EPS?" but "How can we advance the cause of the European Dream?" Let us then examine how far the EPS (in its present form) gives us this opportunity. We take the various features of being an IOM, as described in EPS literature, and discuss them mainly in this light. However, we are also interested in their general attractiveness to IOM's, since they are the specific advantages put forward as reasons for joining and remaining in the Society.

"IOM's are entitled to join any Division, Section or Inter-Divisional Group without restriction"

When an IOM does so, what benefit does he receive, and what communication does he actually have with that body? A few IOM's become members of Boards, and get drawn into the Society's activities that way. What news or scientific communications do the others get as a result of joining? Is the level of communication between Boards and their

affiliated IOM's adequate, or does it consist mainly of the circulation of ballot papers? One cannot participate in something if one does not know what is going on. It would be particularly useful to have feedback from IOM's on this point.

*"IOM's receive the monthly bulletin *European Physics News* free of charge"*

The journal is clearly a plus, but despite its undoubted virtues — it certainly plays the European Dream theme, and there are good scientific articles — it seems unlikely that the IOM feels very involved with the EPS through this channel. It is impersonal; the IOM is not invited to contribute comments or enter into discussion, and the various Boards seem to make little use of the journal to pass on news to their members.

"IOM's... enjoy reduced rates of subscription to journals"

Another plus; but it is hard to imagine it is a major selling point, at least to younger physicists. Few who have to manage on academic salaries would take out personal subscriptions to a general publication like the *European Journal of Physics*, excellent though it is.

Apparently some 10% of IOM's did so for *Europhysics Letters* before the recent price rise, but the number has now dropped appreciably. As an advantage to IOM's, therefore, the figures suggest that reduced rates are not important.

"IOM's pay reduced registration fees at EPS and other conferences"

This is again clearly an advantage; but since most physicists cannot afford to go to conferences out of their own pockets, the institutions which reimburse them may be the main beneficiaries. Nevertheless, one should not underestimate the psychological value of asking for less money because one has a privileged rate.

As regards what actually happens at conferences, not nearly enough is done at the moment to publicise the EPS role. This again is a matter of communication. So far as the average participant is concerned, there is a local organizer and committee responsible for the mechanics of the meeting, and there may be a separate body which has come up with the scientific programme, invited speakers, and so on. The EPS has a vague background role; at the best, its logo is on the abstract booklet, while at the worst, it can be represented as a parasite which takes away good money without doing any of the hard work.

"IOM's are given priority for presenting papers at certain conferences"

This is hard to understand. Taken at its face value it seems to imply that non-scientific judgments are sometimes made in deciding who has worthwhile material to present, which is presumably not the case.

IOM's are represented by delegates at meetings of Council

This is not quite a quotation from the publicity literature, but we assume that the EPS considers representation on Council to be an important feature of its relationship with its IOM's. The delegates themselves feel that the system as it stands is inadequate. When they arrive for a Council meeting they have no more idea of what position the IOM's would wish them to take on any given issue than do the other Council members. Perhaps less, since delegates do not generally attend the meetings of Committees. There has never been any mechanism for finding out what IOM's think. And yet we have the absurdity that the votes of delegates in Council are given additional weight, to bolster the fiction that they are in contact with the membership.

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What can we conclude from all this? It seems likely that many join the EPS because they hope to take part in realising the European Dream, only to find that the EPS gives them no more opportunity to do so than they had outside the Society. What, then, is left? Joining Divisions seems of little use if they generate no contacts, *Europhysics News* is a one-way communication, and delegates have the opportunity neither to discuss the issues with IOM's before Council meetings nor to learn their opinions on Council decisions afterwards.

So what can be done? Any action which might be taken must not in the first instance involve appreciable additional expenditure. Nevertheless, it is perhaps as well to underline the fact that the Society is desperately short of funds, and if this one problem could be alleviated most of the others would disappear. Realistically, it seems best for the moment to concentrate on two issues, the format of *Europhysics News* and the image of the EPS at the conferences which it sponsors.

Europhysics News is the one organ of the EPS which could serve as a regular channel of communication with IOM's in both directions. It would be nice to make it a more substantial journal, but this would be prohibitively expensive. Further, care is required in introducing changes; within its existing budget, it does what it does effectively, and one must beware spoiling it. The content should remain predominantly scientific, as it is now. One possibility would be to ask the Divisional Chairmen how they might most usefully deploy space

allotted to them, it being made clear to them that the results of elections to Boards are not the kind of thing one has in mind. One could then target specific material much more closely than one does now, and it would be natural to invite feedback. For example, IOM's might be interested to know how the organization of a Divisional Conference is going; one could ask them for suggestions for invited speakers, or topics. It could become the norm rather than the exception to print letters, and a letters page might then naturally evolve. In the first instance the exchange of information might not be very useful; the important thing is to get it going, so that there is some dialogue leading to a sense of community.

A conference with the EPS label presents the opportunity of emphasizing the role of the EPS as a force in science, and to recruit new IOM's. To send a member of the Geneva staff to sit disconsolately at a desk with a pile of forms and some specimen publications is not nearly enough (and may be counter-productive). It isn't his fault; with no channels open, what can he be expected to do? The organizers should surely have enough sympathy with the EPS to allow the connection to be made more forcibly, preferably by a well-known and articulate scientist committed to EPS ideals (there are likely to be some at virtually any meeting) making a short speech on the EPS and its role in Europe during the preliminaries in plenary session. Maybe this happens sometimes, but not nearly often enough. The idea would be to identify the conference in

the participants' minds with the EPS at the outset, and to let them hear what it is all about from someone whom they respect for other reasons. There may be other things one can do. But the message is to project effectively the image of the EPS where we have the most intimate contact with the consumer.

Let me emphasise that the concern of the delegates is simply to promote the

health of the Society; whether the analysis given above is completely accurate or not is almost beside the point. The most important thing at this stage is to gather views and canvass opinion as widely as possible. You are therefore urged to make your contribution by writing to this journal, expressing your views on any aspect of the issues raised. We hope that as a result of this exercise, your

delegates and the other Council members will be better informed and can take appropriate action. But by writing you will also be helping this journal to evolve into a vehicle for the interchange of views and for improving lines of communication within the Society.

D.N. Stacey

(Clarendon Laboratory, Oxford)

First Reactions of the Executive Committee

Twenty years on is a good time for looking back and a good time for looking forward. Whilst in the past, it seemed that mere survival was the maximum ambition EPS could hope for, the Society has matured to a state where we should be rethinking our practices and our institutions with a view to further growth in size and value. This initiative of the IOM delegates is warmly welcomed because it highlights the preoccupations of the Society as a whole — and not least the Executive Committee. Communication within a widely dispersed organisation is always difficult and magic solutions are not to hand. Nevertheless improvements can be made and should be vigorously pursued.

Europhysics News

Europhysics News has a pivotal role to play in communications within the Society. The suggestion to have a section reserved for Divisions which can contain scientific notes, information about programmes and the organization of future meetings, comments about past meetings, information about Divisional Board meetings etc. and a section reserved for IOM's which can contain any suggestion, complaints etc. any IOM wishes to make is already *de jure* as Divisional News and IOM letters have always had priority. It is not *de facto* because although over the years we have made a number of attempts to encourage the Divisions to use *Europhysics News* for transmitting news to their members, the success has been thin. Nevertheless we should go on trying. As far as the section for IOM's is concerned, we can only urge members to sit down at their keyboards (and not to worry about their English as the editor can take care of that).

In effect what we should like to do is to keep the high level contents of *Europhysics News* as at present but expand the journal to include also more short news and personal items as well as the different 'back-end' features of magazines generally. Also we should like to make it more attractive in appearance.

But this all costs money which we do not have. However, a sub-committee consisting of the Secretary, Prof. M. Jacob, the Vice-Secretary, Dr. L. Cohen and the Vice-Treasurer Prof. J.M. Gilles are looking again to see what might be done within our boundary conditions.

EPS Conferences

We all agree that divisional conferences are of great value scientifically and they provide an excellent opportunity for recruiting the active scientists to EPS in a straightforward way. We have tried a number of times to get new IOM's at conferences by distributing pamphlets and specimen publications. Success has always been very small. The proposal that at the opening and also at the closing session of an EPS organized conference the chairman of the meeting or an IOM who is familiar with EPS should make a small speech on EPS and its role in Europe is strongly supported. This should be followed by an invitation to sign up for IOM membership.

Priority for Presenting Papers

There is a simple explanation for the statement that priority is given to IOMs for presenting papers at certain conferences. It may not be widely known that in the American Physical Society for example, sponsorship by members is needed to present papers at a number of important conferences if authors are not members in their own right. The agreements that have been negotiated with the AIP and the two physical societies in Japan give IOMs the same rights regarding conference presentations as members of those societies in their own countries.

Delegates of IOM's and Associate Members to Council

It is true that the delegates of IOM's and Associate Members are usually not well informed about the topics which will be discussed at Council and have no means to hear and thus represent the opinions of their fellow members. I have to add that most delegates representing

national societies are not better off. Only few of them come to Council Meetings with clear instructions. At present the President of EPS opens Council by giving a relatively lengthy report about the activities, plans and problems of EPS. In order to be able to give this "State of the Union Message" he receives beforehand short reports from the Chairmen of the Advisory Committees and Divisions. Whereas the reports of the Advisory Committees are completely integrated into the President's Report, the Chairmen of the Divisions can present their reports themselves afterwards. The President's Report is followed by a general discussion, which in general, is not very long. One reason is that many Council delegates are not well informed about the salient issues nor have they had any opportunity to discuss them with their colleagues.

We are considering therefore a new procedure whereby in January the President receives from the Chairmen of the Advisory Committees and the Divisions their reports from which he prepares the President's Report which will be sent in February to all National Societies, and all Associate Members and to the nine Delegates of IOM's. This way, all the delegates can prepare themselves for the Council Meeting which is prescribed for the second half of March. In order that the delegates of IOM's can get some input from their IOM colleagues it is also suggested that a version of the President's Report be published with *Europhysics News* in February, *i.e.* some weeks before the Council Meeting, for circulation to the IOM's.

Following this procedure, the Report of the President will, on the one hand, take up less time and, on the other hand, the discussion period will become longer in time, more lively and thus more productive. Furthermore, it allows the IOM's to take a more active role in running the Society. And this is what we want.

W.J. Merz

(Zürich)