

O programa PISA permite que alunos que ainda não têm conhecimentos especializados de matemática se apercebam facilmente do efeito, qualitativo e quantitativo, que tem a resistência do ar, essencial ao pensamento aristoteliano, mas quase sempre ignorada nos manuais escolares. Pode o aluno, em vez das bolas de ferro, deixar cair vários outros objectos de massa e tamanhos diferentes no computador (bolas de pingue-pongue, balões de ar, etc.) e descobrir objectos que sejam «aristotélicos». Pode ainda «mergulhar» a torre de Pisa na água ou ensaiar outras proezas que ocorram à sua imaginação.

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Os textos transcritos (numa tradução que procurou adoptar a linguagem moderna) foram extraídos de:

- L. COOPER — «Aristotle, Galileo, and the Tower of Pisa», Kennikat Press, Port Washington, 1935.

Que contém vários textos originais sobre a queda dos graves.

Re-estruturação da Sociedade Europeia de Física

Está em curso um amplo movimento europeu para a re-estruturação profunda da Sociedade Europeia de Física. Pretende-se criar as condições financeiras, de representatividade e os novos meios de acção, para que a EPS possa desempenhar um papel representativo na Europa, em consonância com a real importância que a Física tem nos domínios científico, tecnológico, educacional e cultural.

O assunto foi já discutido em profundidade numa reunião alargada do Council da EPS, realizada no mês de Abril em Atenas. Pela sua importância e implicações futuras para as Sociedades Nacionais de Física, sócios individuais da EPS e mesmo os sócios ordinários das Sociedades Nacionais, transcreve-se na íntegra um resumo dos pontos abordados na reunião de Atenas (*Europhysics News*, **23**, 1992):

mittee's response to a mandate given by Council in 1991 to propose a scheme whereby all members of national societies (NS) would be directly affiliated to EPS. The document had already been circulated for comment to the NS and to EPS bodies.

Council endorsed the proposals. The executive Committee will now seek further input to better define some specific points, notably finances and ways to "homogenise" items such as the categories of NS members involved and representation of the Divisions, NS and individual members on Council and on the Executive Committee. The aim is to develop an implementation plan for formal approval at the '93 Council.

Purpose and Role

The main purpose of the proposed restructuring is to increase the Society's visibility and influence by having the roughly 55 000 individual members declared at present by NS become EPS members.

Towards a New Structure for EPS

We give here a summary of the restructuring document *A New EPS Structure* that was discussed by Council last month. It is the Executive Com-

The Divisions and Committees would then operate from a greatly enlarged and financially sound base.

The Society's tasks in complementing national activities at the rapidly broadening European level would be to:

- foster Division and Committee activities;
- stimulate cooperation (east-west, north-south, Pacific rim-USA, physics-industry, physics-academic community);
- present itself and act as the European physics community's representative *vis-à-vis* international agencies;
- better act as a forum for analysing International facilities for physics;
- gather and distribute information at the European level on all aspects of physics;
- help ensure the equivalence of European standards of education, qualifications and training;
- increase its rôle as a publisher in association with national societies if appropriate, and as an advisor.

New Structure

Each national society would become a "full membership society" (FMS) by registering members (the classes, *eg.*, teachers, students, *etc.*, have yet to be defined) as individual members of EPS, and by providing the names of members with their interests in respect to Divisions and committees to EPS for internal use. Each member would:

- receive *Europhysics News* and the usual IOM benefits;
- be eligible to belong to all EPS bodies;
- be represented in Council *via* the NS, the Divisions and maybe directly.

A special membership category corresponding in spirit and representation to the present IOM's would be created, and fee income earmarked for specific initiatives with the Society.

Financing the New Structure

The proposed restructuring aims to reduce the difference in fees per member between large and small NS while providing strong and stable financing. The changeover to a fully FMS configuration — which could occur gradually and with no major change in by-laws — would involve each NS paying an EPS fee (essentially today's unit fee) for every member registered with EPS. There would be a fee reduction above a certain number of members to allow for redundancy where large societies provide some EPS services. Levels of 5000 and 10 000 members were suggested so this would only affect the Institute of Physics (UK) and the German Physical Society.

Well-defined projects requiring capital investment would be submitted to tender to NS, to foundations with interests in physics, and to commercial organizations.

The new structure corresponds to a change in the Society's income of +70 to -280 kSFR. The estimated range is large as there are many considerations which still need to be clarified. Both limits are 70 kSFR less than those given in the restructuring document where income from east and central Europe and the former Soviet Union was counted twice by mistake. The limits assume:

a) *Fee income*: Associate Members — contributions unaffected. Individuals and NS-IOM fees of 212 kSFR (3932 IOM's) + NS fees of 414 kSFR (for 56 540 NS member declared to EPS) = 626 kSFR change to FMS fees of 658 kSFR for 56 540 registered members. The 56 540 membership is an average of the current declared number (54 807) with a revision upwards based on a survey by The Netherlands Physical Society. The net increase of 32 kSFR assumes a FMS fee corresponding to 50 % of the proposed unit fee (13.50 SFR) for more than 10 000 members. More precise estimates must allow for: possible reductions in the 10 000 limit, deferral of fee payments by NS in east and central Europe and compensating contributions by other NS, and growth in registered members above the 56 540 level being offset by a fall-off in NS membership stemming from a possible increase in the NS fee if NS choose to modify their fees on becoming FMS.

Supporting members — that 10-50 % of today's IOM's together with all of the present IOM's not affiliated to NS (Cat. 4a) would contribute 20-100 kSFR in total.

b) *Europhysics News*: that the net cost of *Europhysics News*, including a major part of the costs for communicating with members and the enlarged Divisions, will increase by 200 kSFR for the production and bulk distribution of 60 000 copies of the present publication to NS for local distribution. This increase allows for increased income from advertising, subscriptions and bulk orders.

c) *Administration*: that possible savings in administering IOM memberships of 90 kSFR may be completely offset by the need to increase support for Divisions.

d) *Growth*: that the Society's income outside *Europhysics News* and FMS fees would grow by 5-10 %.