

An agency that is flexible but flawed

Since its foundation in 1995, the UK Engineering and Physical Sciences Research Council has been radical and innovative in developing its relationships with the communities that it funds. Researchers' distrust of the changes is justified.

THE United Kingdom's physics community is having a rough time. Particle physicists and astrophysicists are feeling the squeeze as the Particle Physics and Astronomy Research Council struggles with the soaring costs to the United Kingdom of international subscriptions. And now the community's other provider, the Engineering and Physical Sciences Council (EPSRC), is turning the screw (see page 755). From a wider historical perspective, the EPSRC's plan may be seen as just one shallow trough on the rippled surface of science funding trends. But it may also be seen as the effect of a flawed experiment in science policy.

The EPSRC is afflicted by conflicts implicit in its mission statement, which requires it to support national wealth creation as well as basic science. At first sight these two objectives should be able to sit side by side, if not comfortably (given funding pressures) then at least compatibly. But such appears not to be the case in practice. Statements by the EPSRC's chief executive make it clear that a relative lack of involvement with industry has counted against the physics community in plans for future funding.

That is symptomatic of a conflict. The EPSRC is the only significant source of grant funding for areas of physics such as condensed matter, atomic physics and nuclear structure. If these areas are not suited to attracting funds from elsewhere, that is all the more reason why the EPSRC should reinforce its commitment to them. But the list of criteria applied in considering programmes is dominated by factors relating to industrial potential, and suggest that if there is no strong industry with which to make a direct link, support for the science will not feed national wealth and is therefore money diverted from a key council mission. That philosophy is a tempting corollary of the UK government's emphasis on wealth creation, but it is dangerous when, as now, it is not balanced by due consideration of science for its own sake.

That lack of balance underlies other signals emerging from the EPSRC, that physicists are not doing as well as others in coming up with good ideas. But on whose evidence is this judgement based? Here one encounters the experimental nature of the EPSRC, which abolished its predecessor's standing disciplinary committees. Grant assessments are now made by anonymous *ad hoc* panels, with minimal continuity, drawn from "colleges" of peers. There is no structure of strategic advisers explicitly drawn from these colleges. The scientific advisers to the council are on the relatively small "technical opportunities panel" which weighs up disciplinary programmes drawn up by respective programme managers — council staff who in turn act as filters of whatever advice and signals they have gleaned from the community.

From the time this system was established, academics have privately expressed a lack of faith in the ability of programme managers, who have been drawn from administrative backgrounds, to represent the long-term interests of their disciplines within such a structure. Certainly, much appears to depend on their presentational abilities. The EPSRC hopes that learned societies will fill some of the (entirely foreseeable) gaps in expert strategic advice, but that has its own problems: what learned society would sensibly start choosing winners and losers from among its membership?

To lose the inertia of standing committees may be an advantage, but not if the flexible and tightly focused structure that replaces it

has critical weaknesses. To enhance trust, EPSRC's senior disciplinary managers should be drawn from their communities — as is the case, for example, in France's CNRS, the US National Science Foundation and the UK Natural Environment Research Council. The council should also be more transparent in its application of troublesome criteria. □

Nature's related journals

The launch of *Nature Biotechnology* makes some clarification appropriate.

THERE are now five publications in the *Nature* family of international journals: *Nature* (founded in 1869), and its monthly relatives: *Nature Genetics* (1992), *Nature Structural Biology* (1994), *Nature Medicine* (1995) and *Nature Biotechnology* — launched as a new title this week.

These journals have several goals in common. The most important is that the papers they publish should be of unusually high quality. It is taken for granted that they should report science that has been carried out to the highest standards. But another aspect of quality relates to unusual impact, and here too all five journals apply exacting criteria. All five achieve these ends by rigorous standards of peer review and rapid publication.

Editorial staff are often asked about the relationship between the journals, and the criteria that govern where a given paper might best be submitted. The following is intended to give some guidance.

As it has always done, *Nature*, appearing weekly, aims to publish papers, from any area of science, with the greatest possible impact, often extending well beyond the discipline concerned. The development of the monthly journals has made no difference to *Nature's* criteria of acceptance in any discipline. The monthly journals aim to publish first-rate papers with exceptional impact within their particular disciplines. More specific details can be found in their guides to authors.

The editors of all five journals make their own independent decisions as to what to publish, and each journal's editor has full responsibility for its content. In turn, the Editor of *Nature* has a responsibility to the publishers to ensure that all publications bearing the word *Nature* in their title maintain the high standards that are expected of them. The majority of papers published in any of the monthly journals are submitted there at the outset. But because of pressure on space, *Nature* has to turn away many papers of very high quality, some of which may well be appropriate for submission to a monthly *Nature* journal. Although the editors of *Nature* may make recommendations to this effect, such suggestions are never discussed with the monthly journals' editors, and it is up to the author whether to act on them. But *Nature's* editors can save significant time by passing on comments of referees to the editor of the journal in question.

More details will be available on the *Nature* web site (<http://www.nature.com>) next month, when the monthlies will also introduce their own pages. □