

External assessment pays national dividends

A decision to expose Germany's science to international scrutiny has yielded a constructive appraisal. Although such evaluation can have its pitfalls, other countries should follow suit.

The ability to see ourselves as others see us is a gift. So bringing in foreign experts to assess the operation of two of Germany's basic research organizations — the Max Planck Society (MPS) and the Deutsche Forschungsgemeinschaft (DFG) — was in practice a generous idea of the Bund-Länder Kommission, despite initial grumblings.

The MPS and DFG are generally viewed as solid, well-funded organizations of high scientific integrity and an enviable level of political autonomy. But are they, perhaps, also slow to take up new ideas? The evaluation report delivered last week (see pages 395–396) puts some flesh on such concerns. German science tends to adopt a low-risk approach, it concludes. Although German scientists and administrators are aware of the problems it highlights, this international recognition of the issues should weaken some of the resistance to change that German reformers have encountered.

Commendably, the review exercise has raised the urgency of dealing with the poor career prospects for young scientists and employment laws that prevent German research institutions from attracting top scientists with the required salaries. Resolution of these issues lies partly in the hands of politicians. A relaxation of laws governing employment in the public sector is essential for progress on both fronts.

One obvious weakness of this particular evaluation exercise is that it was limited to a small — albeit critical — part of the German research system. A second is that it was, by definition, carried out by experts from other cultures, inevitably bringing with them their own cultural biases. Perhaps it is as a consequence of this that the evaluation report suggests that the DFG should foray into the realms of research policy by supplementing its bottom-up approach to research funding with strategic grants programmes.

This suggestion is out of tune with both the political independence of the DFG, which is a primary strength of that organization,

and the operation of the German research funding system as a whole. The federal research ministry, as well as the Helmholtz Society (the umbrella group for Germany's 16 large national research centres), run major strategic programmes, which could be expanded if necessary. The DFG should not be expected to operate like research organizations in other countries which have political as well as non-political responsibilities.

Similarly, the suggestion, however tentative, that the MPS should move away from the Harnack principle — whereby research is concentrated in institutes headed by directors endowed with research freedom and strong resources — is misplaced. That philosophy, a cornerstone of the MPS operation, places much responsibility on individuals. But the recent introduction of institute evaluations reduces the risk that those directors who do not fulfil early promise will continue to consume resources unchecked. Many countries are taking trouble to ensure that the most gifted scientists prosper through freedom and independence: the MPS provides an inspiration.

Furthermore, the suggestion that MPS resources be spread into the universities by setting up research units away from institutes is not the answer to two undeniable problems: the patchy quality of university research and the inadequate cooperation between universities and Max Planck institutes. The cure for the universities' malaise must come from within, primarily by introducing a much higher level of competition between them.

A national research system needs occasionally to be evaluated in its entirety — a task that the Organisation for Economic Co-operation and Development used to pursue but has now regrettably ceased. Such a large-scale evaluation might be timely in Germany, where more integration of its many strands of research is needed. In the meantime, that country's decision to subject itself to independent outside scrutiny should be applauded. Other scientifically developed nations should do the same. □

Policy on papers' contributors

Nature is encouraging authors of papers to say who did what.

This week sees a small step forward for transparency in *Nature's* columns. On page 473, at the end of the list of acknowledgements in a neuroscience paper, is the following: "R.R. conceived the experiment, and together with A.H. and L.L. carried it out; C.D.B. designed and carried out the data analysis; R.R. and C.D.B. co-wrote the paper." *Nature* decided to accept the authors' request to publish this form of words — in the light also of previous concerns about transparency in relation to scientific misconduct, as well as proposals from correspondents (see, for example, page 405). This policy of allowing authors to succinctly describe their contributions now applies to anyone who requests it.

This is part of a movement that, we hope, will spread naturally across the scientific community, it having already become estab-

lished in some biomedical journals. Experience in the pages of *The Lancet* has recently been analysed by Veronica Yank and Drummond Rennie. Their report is at <http://www.cbe.org/cbe/Yankrev.html>. A proposal of standards for such listings and other useful references can be found at <http://www.cbe.org/cbe>.

This policy is experimental. We believe that, for now at least, authors and editors are capable of jointly deciding what works best in particular circumstances. If, for instance, a long list proves desirable, we may consider it for the web version of *Nature* only.

We hope that, as the practice spreads, the dishonourable practice of "honorary authorship" — authorship by virtue only of seniority, for example — will diminish. More positively, we hope it will lead to a fuller appreciation of just who made what critical contribution. □