

Half way to real reform

Universities in Germany have undertaken overdue reform, but more change is needed to fully tap their potential.

Germany is the world's fourth largest investor in research and development, and its overall scientific impact suggests that much of the money is well spent. But a great deal of that impact comes from the 80 institutes of the Max Planck Society. The university sector is underperforming (see page 630).

The reasons for this can be traced back to the country's turbulent twentieth-century history and the ideologies that invaded the universities before and after the Second World War, on both sides of the Iron Curtain. By the 1990s, universities were overpopulated with students that they had not themselves selected, underfunded, and hide-bound by rules preventing them from competing with each other.

These problems have been recognized for a while, and other European countries may learn from Germany's response. Reforms implemented during the past few years have given the universities much more control over their own destinies, sending shockwaves through the academic landscape. For example, universities may now offer competitive salaries and conditions to selected researchers by transferring support from less productive colleagues.

To encourage institutions that are reluctant to make the most of their new freedoms, research organizations have launched competitions that highlight which universities are doing well and which badly. Perhaps the most influential has been the federal research ministry's Excellence Initiative, which selects a handful of elite universities.

All of this makes for a good start on university reform, but there is a long way to go. Visitors to German universities are unlikely to see, for example, the diversity of gender, age and nationality that they would encounter in a typical US research university. The number of female professors remains dismally small. New initiatives to increase the number of young professors have so far made only a small dent in academic demographics.

And Germany remains less attractive to young foreign scientists than it ought to be. The latest figures from the European Commission's Marie Curie programme, which funds young European Union (EU) researchers to work in a second EU country, show that only 11.5% choose to go to Germany — hardly changed from five years ago and still well below France (16%) and the United Kingdom (32%).

One reason for Britain's popularity is language — English is already widely spoken and a few years in an institution where it is the working language helps a scientific career. But the fact remains that German universities could do more to create a receptive environment for foreign students and staff.

It will be some time before the positive impact of the reforms undertaken so far shows up in statistics. In the meantime Germany needs to address a few extra problems that have been either caused or highlighted by the reforms themselves.

As efforts concentrate on building up a young faculty, the traditional position of the low-level academic, the *Mittelbau*, whose nearest equivalent is perhaps the assistant professor, is disappearing. The heavy teaching load that these people used to bear now falls on young professors who ought to be devoting themselves to research. This is a hard conflict to resolve, as the teaching is equally important — but recruitment must be broadened to address it.

"German universities could do more to create a receptive environment for foreign staff."

Additionally, many universities are still loath to appoint tenured professors from among their own junior staff. This principle was intended to avoid parochial appointments, but it has become less necessary in the current era of constant evaluation, where there is a natural pressure to appoint the best candidate. The rule often serves as an obstacle to young researchers seeking a route to tenure.

The universities will also benefit indirectly from the deal cut two years ago between federal and state governments, Germany's non-university research institutes, and the DFG, the main grant-funding agency. In return for guaranteed 3% annual budget increases until 2010, these institutes are expected, among other things, to encourage greater collaboration with both industry and research universities.

This is a positive development for all concerned, giving institutes such as the Max Planck stable budgets and the universities better access to their resources. It is no coincidence that two of three universities selected by the Excellence Initiative had already developed unusually tight links with local Max Planck institutes. ■

Bad execution

China won't achieve a tenable drug regulation policy by hanging public officials.

The sentencing to death of Zheng Xiaoyu, the former head of China's State Food and Drug Administration (SFDA), is a throwback to the nation's ugly past that will do little to further its professed goal of building a fair drug-regulation regime.

Zheng was sentenced to death in a Beijing court on 29 May on charges of accepting bribes, two years after he was sacked from the drug regulator. Given the secrecy of China's judicial process, it is difficult to assess his guilt or innocence. But accusations involving the bribery of hundreds of officials have shadowed the agency for years. It is good that the Chinese government is facing up to the problem and taking public steps to clean up its drug-regulation process.

But hanging a man and vilifying him in state-controlled newspapers does not inspire confidence that China is building an effective drug-regulatory process. If the sentence is carried out, it is more likely

to confirm the pharmaceutical industry's worst fears that there is little chance of doing business fairly in a country where the rule of law remains patchy and subject to political influence.

Drug regulation is vitally important to China as it seeks to develop an internationally competitive drug industry of its own, while attracting investment from and collaboration with the rest of the world. The country rightly sees the establishment of such an industry as critical to both public health and the nurturing of innovation in the life sciences. In common with most other governments — but with rather better prospects of success — China regards the successful combination of research in biology and genetics, and innovation in biotechnology and pharmaceuticals, as an important element of its plans for scientific and economic development.

From the global industry's point of view, the establishment of a sound regulatory regime in China is just as important. The world's leading drug companies see the country, with its burgeoning middle class, as a market of great potential. Yet participation in that market remains something of an enigma. All of the major drug companies have stepped tentatively into direct participation in research activities in China. They view the risks of investment in China as considerable, but the benefits will only reveal themselves if and when a reliable regulatory regime is established.

So everyone in the industry, at home and abroad, supports the professed aims of Beijing's drive to eliminate widespread corruption from drug regulation. But they are entitled to be suspicious of its implementation. Corruption has been widespread and no one believes that Zheng — supposing that the charges against him are proven — was the only, or even the worst, culprit.

Articles appearing in *China Daily* and elsewhere in condemnation of the official and his family have the smell of old-fashioned, stalinist scapegoating, more likely to sweep the problem under the carpet than resolve it.

Genuinely fair regulation of drugs is a

complex matter that depends on transparency and on sophisticated checks and balances — such as scientific staff who are paid by the government but can be seen to be independent — not on fear and arbitrary justice.

Hanging a man may create the public impression that the problem is being zealously tackled. Real movement towards fair regulation would involve steps a great deal less melodramatic that yet seem beyond China's grasp — steps towards a transparent drug-review process, functioning under open, public scrutiny. ■

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Community service

Introducing three free-access websites for research networking and outreach.

The mission statement that appeared in the second issue of *Nature* in 1869 and is reproduced every week on our printed table of contents may use archaically high-flown language, but it still applies. In essence, we exist to help scientists communicate with each other and to communicate science to wider audiences.

Precisely that duality applies to two websites to be launched this week: *Nature Reports Climate Change* and *Nature Reports Stem Cells*. Aimed at researchers and at anyone else who is interested, both give an editorial perspective of their fields through a combination of original journalism and commissioned comment, alongside archived material from other Nature publications. Both sites also facilitate community interactions through blogs.

For example, the climate-change site focuses on post-Kyoto agendas, both journalistically and with an analysis of the obstacles by development expert Jeffrey Sachs (see www.nature.com/climate). The stem-cells site contains a similar blend of news about the latest research and comments, as well as a featured editor — this month, cloning researcher Ian Wilmut. It also goes behind the research papers with an editorial commentary and extracts from referees' comments (with their permission) of the paper in this issue of *Nature* on developmental reprogramming by Egli *et al.* (see page 679 and www.nature.com/stemcells).

These sites will develop further by way of community interactions and applications in the coming months. The original content of both is freely accessible.

Also free is a very different website to be launched next week:

Nature Precedings. As its title implies, this site will enable researchers to share, discuss and cite their early findings. It provides a lightly moderated and relatively informal channel for scientists to disseminate information, especially recent experimental results and emerging conclusions. In this sense, it is designed to complement traditional peer-reviewed journals, allowing researchers to make informal communications such as conference papers or presentations more widely available and enabling them to be formally cited. This, in turn, allows them to solicit community feedback and establish priority over their results or ideas.

Intended to cover biomedicine, chemistry and the Earth sciences, the site (<http://precedings.nature.com>) will host a wide range of research documents, including preprints, unpublished manuscripts, white papers, technical papers, supplementary findings, posters and presentations. All submissions will be reviewed by staff curators and accepted only if they are considered to be legitimate scientific contributions of likely interest to others in that field. No judgement is to be made about the quality or uniqueness of the work, and submissions are not subjected to peer review before they are released. Because of this, accepted submissions will usually be published within one working day, and no charge is made to either authors or readers.

Nature Precedings will make full use of participative features such as tagging, voting and commenting to facilitate the discovery of especially interesting and relevant content. We anticipate that the content will be mirrored by academic partner organizations, several of whom have been involved with us in developing this service. As well as allowing it to become incorporated into the substantial information hubs already provided by these organizations, this federated approach will also help to ensure the long-term availability of the content — and act as a practical guarantee of the Nature Publishing Group's pledge not to charge readers for access. ■