

Academy rides the winds of change

Warsaw. Perched on the 26th floor of Warsaw's Palace of Science and Culture — a gift of Josef Stalin to the people of Poland — the Polish Academy of Science is struggling to retain its status as the country's leading scientific institution.

So far, despite a decision by the government in 1990 to transfer responsibility for the funding of its 77 institutes to the State Committee for Scientific Research (KBN), it has survived remarkably intact.

Unlike its counterparts in some other former communist states in eastern Europe, relatively few of its institutes have been closed. Nor have there been widespread redundancies among research staff (although many laboratories have cut back on technical assistance).

Adam Bielański, one of its three vice-presidents (and also president of its Kraków branch) points out that, in a recent grading exercise carried out by the KBN, almost 70 per cent of the institutes came out in the top 'A' category, qualifying them for a continued high level of support from the government.

Others point out that the academy, which has 350 full and corresponding members (as well as 190 foreign members), continues to play a crucial role in maintaining the collective identity of the Polish scientific community and stimulating interdisciplinary collaboration.

But the academy remains under pressure from critics who claim that its bureaucratic structures are outdated and heavy in their demands on scarce financial resources, and that the academy is insufficiently flexible in its scientific division of labour to meet the needs of modern industry.

Another complaint, frequently heard in political circles, is that the divorce of



Symbolic left-over: Warsaw's Palace of Science and Culture.

research from teaching — one of the most damaging legacies of the communist era — means that academy institutes play a relatively small role in meeting one of the country's main needs, namely the production of a new generation of scientifically trained university graduates.

Many academy scientists are themselves concerned about this situation. A group from two physics institutes and the institute of mathematics in Warsaw, for example, last year set up an independent 'College of Science' aimed at giving students a broad scientific training.

Teaching at the college takes place in the laboratories of participating institutes,

and covers basic mathematics, physics and chemistry for the first two years, leading to the equivalent of a US bachelor's degree at the end of the third. "Trained this way, students should understand the foundations of technology in many areas," says Kazimierz Rzazewski of the Centre of Theoretical Physics in Warsaw.

Spurred by such initiatives, the academy itself is now discussing plans for a more ambitious scheme to create what some refer to as a 'university of science'. It is actively encouraged by the Minister of Education who, says Bielański, "has said that he is very interested in using the potential of the scientists in the academy for teaching".

Not surprisingly, such initiatives are viewed somewhat sceptically by many university scientists, who see it partly as an attempt by academy institutes to justify their continued existence, and partly as a way of recruiting future researchers.

"We do not need outside professors to come and teach," says one prominent physicist. "What is needed is a deep reform of Polish science, nominating the best institutes as state institutes that we know we need — but not continuing to support all of the rest."

More reforms are, indeed, on the way. The academy is completing discussion of a draft bill it hopes the government will accept and which would, among other things, provide its institutes for the first time with independent legal status.

How deep the reforms will be remains to be seen. Those (including some academy members) who continue to insist that, in many ways, Polish science was better off under the communists, still have powerful friends in political circles. The jury is still out on which way the academy — like the whole of Polish science — will eventually decide to evolve. □

institutes, that would allow those remaining to be paid competitive salaries. "We have institutes of the academy all over the country that are drinking money," says one scientist at the Jagiellonian University. "Some of the institutes are excellent, with top-class scientists; but there are too many with a low scientific output."

Others suggest that the scientific community itself needs to adopt a more rigorous approach to its internal review procedures. "At present there is no system for self-purification," says Anna Grabowska, of the Institute of Physical Science.

One proposed reform is a change to the current procedure by which a university faculty member can become a professor merely by successfully surmounting a set of academic hurdles.

KBN officials claim to be well aware of the drawbacks of many existing practices in the research community. Karczewski, for example, acknowledges that there is a growing 'generation gap' caused by insufficient recruits to scientific posts in univer-

sities and elsewhere to fill the vacancies that will arise as older people retire. But they fear that too rapid an implementation of radical reforms could tip the hand of those who would like to see the committee itself — and its work — abolished.

Even Karczewski admits that the key to the future lies in the extent to which the government — and its backers in the international financial community — can be convinced that structural changes in the links between researchers and the implementation of their results are likely to succeed.

Further changes are on the way. A new statement on innovation policy, recently approved by the government, even flirts with the idea of privatizing government-owned research establishments — a radical step, even for governments in the West. To quell anxiety, the statement emphasizes that the principles would be different from those for the privatization of the state's main assets in 1989.

For many, however, the future health of

Polish science depends primarily on the health of its economy. "At present, there are no strategic plans for developing Polish industry," complains Marek Szymoński, a physicist who is vice-rector for international relations at the Jagiellonian University.

Even senior government officials admit that Poland has not decided whether it is going to be a high-technology country — the exploding economies of the Pacific Rim are mentioned — or one whose economy is based more on service industries and modern agriculture.

This ambivalence is reflected in Poland's science; attempts two years ago to impose strategic directions on research policy have since been dropped, but the 'invisible hand' expected to drive research in directions of national need has yet to make itself felt. "Poland is at so many crossroads," says one visiting scientist. "This can be a great opportunity; the problem is, how do you know which way to move?"

David Dickson