Chairman of KBN, the state Committee for Scientific Research, Witold Karczewski faces further budget cuts in 1992.

one quarter of the 100-seat Senat boasted the title of professor, but only half a dozen of these academics remain. Most of the rest simply decided not to run this time around. Entry into parliament may have seemed the logical next step for many Solidarity activists from academia back in 1989, but as partisan party politics became the order of the day, the realization that "I'm a scientist, not a politician" was common. For the new parliament, the progress of legislation designed to continue the science reforms initiated with the Act that established KBN is unlikely to be a priority. The main outstanding task is deciding a new legal framework for the Academy of Sciences, which has lost its role of distributing a large portion of the national science budget, but retains a large and mostly redundant bureaucracy, according to its critics (see page 388).

Meanwhile, the main concern for Polish researchers will be money. Under the Mazowiecki government, Polish science experienced a temporary period of prosperity — many university laboratories house expensive items of equipment (centrifuges, computers and the like) purchased in 1990. But most researchers now say that they have less to spend in cash terms than they did under the Communists. This statistic is slightly misleading, however, as the fact that the zloty is now a genuinely convertible currency (with a reasonably stable exchange rate of around 11,500 to the US dollar) has made a huge difference. Whereas western equipment and reagents could only be purchased before from the miniscule quantities of hard currency given to each laboratory (typically only a few thousand dollars for an active university research department), researchers can now spend as much of their money as they like on supplies from the West.

Nevertheless, the financial hardship in Poland's laboratories is real. Karczewski was last year forced to cut the Polish science budget by more than 30 per cent, from the planned figure of around $1,000 million. And with the national budget deficit still a huge problem, spending on research in 1992 will squeezed still further. Ironically, the present shortage of money may actually make Karczewksi's difficult job a little easier, although this will bring little comfort to the average Polish researcher. Even in the Academy institutes and in the universities, the few Polish researchers who have built solid international reputations say that a sizeable number of their colleagues (as many as half, according to harsher judges) are unproductive, and should be replaced. The current enforced financial stringency may allow KBN to prune some of the 'dead wood' from the Polish research community with a minimum of protest. But even some among KBN's supporters fear that the committee's new selective funding criteria may not ensure that it is Poland's least productive researchers that are the first to join the unemployment benefit queues. Andrzej Ziabicki, from the Academy Institute of Fundamental Technological Research in Warsaw, and a colleague of Karczewski in the leadership of the reformist TPKN, is worried that many of the least active researchers will have plenty of time on their hands to put together superficially appealing proposals for KBN funding, which if not reviewed thoroughly, may squeeze out proposals from their more deserving colleagues. □

INTERNATIONAL COLLBORATION

A lifeline from abroad

Warsaw

WHEN the states of Eastern Europe broke free from the influence of Moscow, Poland's scientists had something of a head start in tackling the urgent business of reform: even under the old Communist regime, most Polish researchers were able to travel and work in the West with relative ease. As a result, reform has been driven by a scientific community well aware of the limitations of the Soviet model of organizing research. (And in any case, this model was less rigidly imposed on the Poles than in many of Moscow's other former satellite states.) The fruits of this freedom of travel — the large number of ongoing collaborative projects linking Polish and western laboratories — may also serve to help cushion Polish science from the worst effects of the deep recession that is now gripping the country. Even if research groups do not have the money to buy vital equipment, they should still be able to do part of their work in their collaborators' laboratories abroad.

The most common destination, for Polish scientists looking to work in the West, is the United States. Despite the closer proximity of Europe, many Poles find it easier to arrange work in American laboratories — where personal contacts are the key factor, and government bureaucracy is less of a hurdle. US funding agencies are also taking the lead in extending their reach to help support Polish science, presumably convinced that US researchers have much to gain from collaborating with the cream of Poland's researchers. The National Institutes of Health, for example, have recently started awarding 'shuttle grants' for Polish scientists, which pay for a series of two to three month visits to a laboratory in the United States. These are particularly popular with the new generation of Polish science policymakers, offering strengthened ties with the US biomedical research community while minimizing the likelihood that the grant holders will leave Poland for good.

But, with many European agencies also showing a renewed interest in Polish science, Britain remains a notable blackspot. Most Western countries have by now dropped visa requirements for visiting Polish nationals, but the British government still insists on subjecting Poles who wish to enter the United Kingdom to an obtrusive, often highly personal, inquisition, according to Polish scientists who have been through the process. Visas are often delayed, and occasionally denied. Understandably, few Polish researchers look first to Britain when trying to extend their network of international contacts.

As in the rest of Eastern Europe, a possible 'brain drain' of scientists to the West is a concern, although the fact that a temporary stay in a western laboratory has long been a feature in the career of many Polish researchers provides some reassurance that visits abroad do not necessarily lead to permanent emigration. The failure to attract the brightest Polish students into a career in research offering only minimal financial rewards is a far greater worry. Indeed, as a result, Polish laboratories may become the end point for another brain drain. Aleksander Zamojski, from the Academy of Sciences Institute of Organic Chemistry in Warsaw, and until this month president of the Polish Chemical Society, says that "we're thinking quite seriously of importing Russians and Chinese" to fill research posts spurned by young Poles. □