East German Scientists Wary About Unification

Berlin

EAST GERMAN SCIENTISTS would seem to have plenty of reasons to be celebrating the impending unification of Germany along with their countrymen. After all, reunification should give a major boost to East German science as laboratories that have been struggling in relative isolation are brought into the mainstream of Western R&D. But for many scientists and engineers in East Germany, the more immediate prospect could be unemployment.

The reason: East German laboratories will have to go on quite a diet to become competitive. Max Syrbe, president of the West German Fraunhofer Society—the applied research equivalent of the Max Planck Society—estimates that East German labs are overstaffed "by a factor of 3 as compared to our institutes." After unification, says Syrbe, "funding the whole apparatus is just inconceivable."

Just how the scientific enterprises of the two Germanies will be integrated is still an open question. But the outline of a strategy is beginning to emerge.

■ For a limited period, two German states will coexist. Help for East German science will consist primarily of know-how about restructuring research organizations along the lines proven in West Germany.

■ The second step, probably some time this year, will be monetary union. This will help East German researchers to buy reagents and up-to-date equipment from the West.

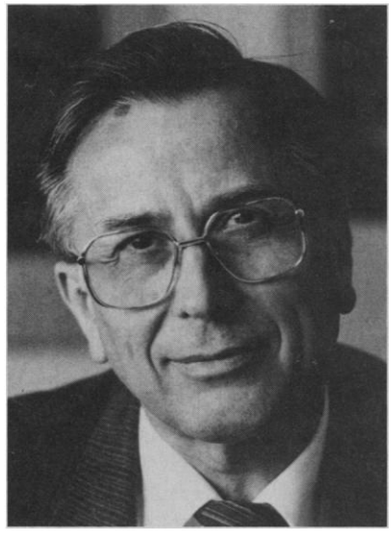
■ The third step, political unification, will be accompanied by institutional fusion and formal integration at every level from the individual laboratory to the ministry. But that is at least 2 years away.

Of the 195,000 East Germans employed in R&D, the smallest group—the 6% who work in universities—probably have least to fear. They are generally regarded as being of high quality and many have tenure. But the 80% in the laboratories of the giant industrial combines and the 24,000-person staff of the huge Academy of Sciences must be worried.

Industrial research labs have become bloated in part because of subsidies designed to maintain full employment. But many of these are already being scrapped. "The restructuring and reorientation toward profitable products that is currently under way, and is accompanied by a far-reaching reduction of state subsidies for microelectronics, will lay off many thousands of engineers and scientists," says Volker Kempe, head of the East German Academy of Sciences' Institute of Cybernetics and Information Technology.

The availability of goods from the West will also have an impact on staffing. Currently, East German labs have armies of scientists and technicians making equipment and synthesizing reagents. At the Academy's Institute for Molecular Biology, just outside Berlin, for example, more than 110 of the 620 staff are occupied in synthesizing chemical reagents or making apparatus. But once the labs can simply buy reagents and equipment with hard deutsche marks, the need for these armies will disappear.

Access to up-to-date equipment from the West is sorely needed, however. A secret report for the East German Academy of Sciences by Professor Werner Meske, of the Institute for Theory, History and Organization, details the results of years of reliance on homemade instruments: one in three pieces of equipment is more than 10 years old, and the mean life-time of measuring devices in East German labs is more than 15 years. The report was suppressed before the November revolution, but was published in January. "By international comparison," it notes, there is a "gap of two or three generations" between East German lab equipment and counterparts in the West.



Layoffs ahead? *"Funding the whole apparatus is inconceivable."—Max Syrbe*

It's a similar story in high-technology manufacturing. "In microelectronics we are certainly 8 years behind," reckons Reinhard Senf, deputy executive officer of the VEB Mikroelektronik Erfurt, the people's microelectronic's company in Erfurt, a district in the south of the country. Senf's plant is one of the foremost chip-makers in East Germany, with a research center that employs 1200 scientists and engineers, out of a total work force of 8500. Their future, like that of many others, is uncertain.

Which is why many East German scientists, having seen the writing on the wall, are looking for alternative means of support. Many are trying to extract money from Western agencies. "People are writing grant applications like hell," notes Gunter Fuhr, a biophysicist at Humboldt University.

By the end of March, for example, a flood of 200 applications from East Germany had arrived at West Germany's Volkswagen Foundation, the largest private science foundation in Europe. Only 21 have been funded, for a total commitment of DM 3.3 million ($1.9 million). Spokesman Werner Boder says East German applicants' unfamiliarity with the foundation's procedures has held up some funding decisions, but West Germans have not always helped. To be eligible for a grant, East German scientists have to team up with a partner in West Germany and "some West German partners have applied for disproportionately high 'own needs'," says Boder diplomatically. In other words, they have sought a dowry of additional equipment for their own labs.

The Federal Ministry of Research and Technology also requires a formal West German partner for any projects it funds in the East. It treats East Germany as a foreign country, with cooperation regulated by a formal treaty agreed in 1987. Sixty joint projects have been supported to date, but proposals from East German scientists have skyrocketed to 140 in the past month. The ministry has provided DM 80 million ($47 million) to enable West German institutions to seek new partners in the East.

In the meantime, many East German scientists, fearing they might lose their jobs from their country's turn westward, figure they might be able to create new employment, Western-style. Humboldt University in East Berlin recently convened a workshop on how to start a private enterprise; more than a thousand students and scientists showed up. ■ **RICHARD SIETMANN**

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