

1972 there were 270 new jobs, this year only about 30 are expected.

Elstermann calculates that while an assistant lecturer in Germany had more than a 70% chance of being appointed as an established university teacher—in many cases as full professors—in the 1960s, in the 1976–85 period these chances will fall to only 15% before rising slowly to 23% in 1990 and 30% in the year 2000. Writing in last year's annual Norwegian research review, Hans Skoie, deputy director of Norway's Science and Humanities Research Council's Institute for Studies in Research and Higher Education, commented: "There is a definite danger that universities and research establishments may develop into communities of senior citizens leaving membership of future classes of graduates with minuscule chances of getting research jobs."

He fears that potential scientists will be discouraged from going on to higher studies and many of the best talents lost. This in turn would lead to less research being performed through

thesis work, thereby deteriorating the chances of senior staff to carry out their own projects. The trend against further studies has been evident for several years in neighbouring Sweden. In 1968, 37% of graduates went on to further studies. By 1971 this had fallen to 22.5% and last year it was down to only 14%. The Swedes are especially worried about their failure to attract students in mathematics and the natural sciences.

Another fear is that as the present research population gets collectively older fewer will be likely to change jobs—a trend reinforced by the tight employment market. This lack of mobility could then affect contacts between the universities, research institutes and commercial laboratories, and a Council of Europe report presented recently to a meeting of the organisation's committee for higher education and research concludes that the overall result could be stagnation and a possible decline in research creativity.

Attempts to overcome the age im-

balance problem vary widely. In France priority is being given to the recruitment of contractual staff as against creating new tenured positions which would have the status and security of those of civil servants. In Federal Germany the remedy advocated has been a strict adherence to temporary contracts, with nearly all staff below professorial level being untenured, the idea being to maintain a steady flow of young academics through the universities. However, long term solutions of this kind are almost certain to be opposed by the trade unions.

Other suggestions include encouraging older researchers to apply for senior administrative posts, introducing productivity or merit increments instead of those based on seniority or simply age, making the retirement age more flexible, offering increased opportunities for leave of absence, more academic exchange programmes and, perhaps rather optimistically, simply filling staff vacancies as soon as they occur. □

## CHEMICAL WEAPONS

# Disarmament by phases

*At the Conference of the Committee on Disarmament (CCD) in Geneva, Britain last week tabled a draft convention on the prohibition and destruction of chemical weapons to complement the 1925 protocol banning their use in war. Chris Sherwell reports*

THE search for a convention to cover unconventional weapons continues. The latest initiative has come from Britain in the sphere of chemical weapons, and, as the UK representative explained to the 720th plenary meeting of the CCD, combines new ideas and constructive and realistic elements from previous drafts into a draft treaty which is being presented as a focus for negotiation.

The 17-Article draft, which the CCD's 30 member states will study before their spring session in February next year, has several features. The emphasis on "confidence building" is one. Under Article II signatories would each establish or nominate a national verification agency; in declaring whether or not they were in possession of chemical weapons and producing figures they would, it is hoped, be generating the confidence without which the main provisions of the treaty would not come into effect.

Article III is also aimed at confid-

ence building. It amounts to a moratorium on production of the chemical weapons specified in a protocol still to be negotiated for Article I, by which signatories would have undertaken "never, in any circumstances, to develop, produce, or otherwise acquire, or use" chemical weapons or munitions or their delivery systems.

Another feature is the draft's three-stage implementation. After the first phase, in which signatories would stop production of chemical weapons and would provide information, the main provisions of the treaty would come into operation. The third stage, marked by Article VII, provides for the phased destruction or conversion to peaceful use of chemical weapons and the destruction of stockpiles. The exact programme is left for negotiation, but a Consultative Committee would arrange for the vital aspects of verification, inspection and exchange of information. Article IX offers a framework, which could also be amplified in a protocol.

Britain does not have any specific time scale in mind for the conclusion of a chemical warfare treaty, and with the summer session of the CCD about to end, is looking only for preliminary reactions. She has shown some eye for timing, however. Eastern bloc countries put up a draft convention in March 1972, as did Japan in April

1974; non-aligned countries had suggested a series of guidelines the previous year. In 1974 Canada suggested the phased destruction of all CW agents. This received the crucial support of the USA in April this year which, in the absence of the promised US-USSR initiative, made this the appropriate time for consolidation.

The time was also right because of technological improvements in monitoring techniques and because the experience of the International Atomic Energy Agency over nuclear safeguards showed that monitoring and protection of military and commercial secrets were not mutually exclusive. The US-USSR agreement earlier this year concerning on-site inspection of "peaceful" nuclear explosions is also regarded as an important breakthrough.

Whether Britain thinks member states now really believe that chemical weapons are unnecessary or that there is no need for stockpiles is another matter; the purpose of the latest proposal, however, is not seen as being to establish which countries are thinking along these lines by discovering their reactions to the draft. A readiness to move forward is apparently perceived, although it is acknowledged that the USSR might choose to describe any concessions it makes over verification in terms of "peaceful collaboration", rather than admit the change. □