

Another carcinogen?

from Laura Swaffield

THE problems of carcinogens in industry (see *Nature*, 258, 94; 1975) are again highlighted by an article in the journal of the British Society for Social Responsibility in Science. The substance now implicated as a carcinogen is trichloroethylene, widely used as a degreaser and chemically similar to vinyl chloride monomer (VCM).

Its alleged link with humans will be harder to prove than with VCM, which is said to produce a rare form of cancer (angiosarcoma). And whatever the eventual findings, enforcement of controls may be difficult. Trichloroethylene is an important cause of gassing and is well known already as a narcotic with dramatic effects.

Precautions are laid down in the UK, though they are by no means always met, and it remains debatable whether enough attention has been paid in the UK to its longer term effects. □

Continuing crisis in Italian universities

from Gillian Boucher, Venice

AS the *Corriere della Sera* put it on November 5, "Today the universities are opening: Why?" The article, concerned with the colossal extent of graduate unemployment in Italy, touched on only one of the problems of the universities—problems that seem so daunting and so far from being soluble by the universities themselves that one marvels to see concerned professors still perfectly sane and conducting themselves in a manner not dissimilar from that of their colleagues in more fortunate countries.

But with the universities open to all who have passed the state school-leaving examination, laboratory and library facilities for teaching are hopelessly inadequate. It is not uncommon for professors to cope with their swollen classes by giving the same lecture three times in a morning. A much tougher entrance examination, even if it were politically acceptable, would not be a fair way of selecting students for science courses because of the bias of the school curriculum: Petrarch and Dante loom larger than science for the average Italian school-child.

Many university teachers would welcome instead a tough examination at the end of the first year of university, but even that smacks too much of elitism to be politically acceptable at present. Fortunately many students drop out voluntarily. Last year at the

University of Padua there were 2,500 first-year medical students, 1,000 in the third year and 500 in the sixth, final year.

Medical schools are in a particularly difficult position, for they have to compete for medically qualified staff with hospitals, which pay far better. The large pay increases recently awarded to hospital doctors mean that university departments often have to fill their junior posts with people lacking medical qualifications, further increasing the teaching load of medically qualified professors.

Difficulties in recruiting first-class graduates are not confined to medical departments. The chief problem is that since 1973 there have been created no more *assistenti*—junior lecturers waiting for a chair who have a certain amount of security and who consider themselves definitely part of the establishment. Now *assistenti* are being replaced with *contrattisti*, who have only a four-year contract and no certainty of a university career beyond that.

Restructuring at the top of the ladder is causing perhaps even more of a headache. The 3,000 top professors (known as *professori di ruolo*) have, with the growing student numbers, been aided by more and more assistant professors, or *professori incaricati*. Although this arrangement was obviously cheaper for the state, in 1973 it was finally decided that 7,500 new *professori di ruolo* should be created by competition: 2,500 in 1973–74, 2,500 in 1974–75, and a further 2,500 in 1975–76.

In the competition, a candidate's publications are assessed by a committee of *professori di ruolo* in the candidate's field, the committee's decision being subsequently blessed by the Ministry for Public Instruction and the university concerned. Unlike previous competitions of this sort, in which the committees used to be elected by all the *professori di ruolo* in a field, the names of the members of the committee are now picked out of a hat by the Minister for Public Instruction. This system has not prevented unconscionable delays in the formation of the committees—mostly caused by obstructive *professori di ruolo* who did not wish to see their privileges diluted by numbers.

The final and fundamental problem is that of money. Once the ministry has spent what it considers necessary for school and university teaching, the sum remaining for research is usually enough to pay for the animal houses and the telephone bill. University research is saved only by the Consiglio Nazionale delle Ricerche (CNR) which, as well as supporting autonomous institutes, funds institutes in university departments and provides grants for individuals.

Anyone lucky enough to be funded by the CNR can feel comparatively secure until 1980, the end of the coming quinquennium. But the CNR is moving towards a Rothschild-like attitude to research for the consumer and may become unwilling to fund projects which fall outside its own guidelines. If a new body being canvassed at present, a Ministry of Scientific Research, is ever created, the CNR would probably become its executive branch. Then, with research firmly separated from education, the CNR would no longer fund research in universities. And that would be the death of science in Italian universities. □

Eurospace body acts

from Angela Croome

IT hasn't taken long for the recently formed European *ad hoc* Committee for Space Science to go into action. Just a week after the European Science Foundation in Strasbourg agreed to its formation, two members of the committee attended a Washington meeting of the Space Sciences Board of the US National Academy of Sciences—the committee's American counterpart as a clearing house for long term research policy in the space sciences.

Active subjects on which high level international planning and cooperation are sought include the proposals for an International Planetary Decade being sponsored by the International Council of Scientific Unions' committee for space research, COSPAR, and the project for a large space telescope as an international research facility. A joint meeting of the American board and the European Committee on the telescope is expected before long.

There is likely to be a good deal of overlap between both the business and the membership of the European committee and a similar committee formed to concern itself with astronomy—though the latter has an initial lifetime of only a year, whereas the space sciences committee is to operate for two years.

The newly formed committee will want to keep an eye on the European Space Agency, established earlier this year, most of whose funds have gone on technology projects, principally satellite applications, rather than scientific research. The agency itself accepts that the balance is not right at present.

In the UK, meanwhile, the Director of Jodrell Bank, Sir Bernard Lovell, has said that the large area interferometer system financed through a £1.9 million grant from the Science Research Council is unmatched in its scale and sophistication. He also sees it