

nature

7 April 1977

Will the JET age ever come?

THERE is only one thing more frustrating than the well-known impossibility of learning precisely when particular European Community decisions are made. That is learning that they are not made. Last week's debacle at the Energy and Research Council meetings in Brussels was nothing if not frustrating.

Two major issues, among many others, confronted the Energy Ministers: the minimum safeguard price (msp) for oil, to protect investment in the North Sea and in alternative energies; and implementation of an agreed Euratom loans scheme for construction of nuclear power stations. The two have always been linked, with Britain refusing to sanction implementation of the loans scheme without agreement on the msp, and France preferring selective support to the msp.

Only one issue, or so it seemed, confronted the Research Ministers: where to site JET, the Community's fusion project. On that decision also hung the implementation of the four-year programme of the EEC's Joint Research Centre (JRC), agreed in principle months before. Since the JRC establishment at Ispra stood to benefit by the programme, its candidacy for JET had weakened next to Culham in Britain and Garching in West Germany, but France had pushed intensively for Cadarache.

With one European Commissioner (Guido Brunner) now handling both the Energy and Research portfolios, and growing talk of JET as an energy rather than as a research project, the idea of agreement in one council permitting agreement in the other emerged as soon as the two council meetings were set for the same day. Sure enough, progress in the Energy Council produced British concessions on the

msp, and alternative schemes will now be examined. Implementation of the Euratom loans scheme was then agreed, and the hope was accordingly expressed that this would assist the Research Council.

It didn't. The Research Council could not agree on a site for JET, for the new but genuine enough reason expressed by France that critical organisational and financial details concerning the way the project would be run were not finalised. What is astonishing is that these matters had not been agreed in the interminable meetings held at all levels over the previous 18 months. What is surprising is that the Council nodded through the four-year JRC programme anyway.

Apart from the embarrassment (especially noticeable in Britain) that goes with such developments, the result is that a decision on JET is no longer contingent upon a tangled web of linked issues. That may mean an early decision if the new difficulties can be clarified, but no one is counting on it. Crazy, the only action has again been inaction.

Though this is an era of international competition and energy crisis, our worry is not whether or when a breakthrough on fusion comes, and certainly not who achieves it. Science does transcend frontiers. Our worry is the uncertainty which indecision generates. JET is an experiment, not a reactor, and its research team deserves better. Now may be an appropriate time to examine the thinking which makes international scientific projects matters of national prestige. Otherwise the Community's processes, though favouring compromise and calculated not to alienate, run the risk of doing the opposite by too faithfully serving governments rather than people. □

Science as a profession

THE founding fathers of the Royal Institute of Chemistry, which was last week celebrating its centenary, envisaged a body which would act for chemists rather than the Royal Colleges do for medical men or as the Inns of Court do for lawyers. In spite of a distinguished record in many respects, the Institute has in that aim been totally unsuccessful. Neither chemists, nor indeed any group of professional scientists, form a comparable profession. Scientists and engineers are neither as secure nor as confident nor as well remunerated as doctors or lawyers. Society may view this favourably; scientists find it uncomfortable.

The difference must in part be because most scientists are neither self-employed nor fee-earning, and may consequently find themselves out of work in a recession. Sir Harold Wilson, in praising chemists at the centenary celebrations, cited the case of his own father, a dye chemist, who became Winston Churchill's election agent while out of work for two years—perhaps persuading the infant Wilson of the surer future available in Parliament. Yet, although not as secure as members of the other liberal professions, professional scientists are expected to have similar standards of ethics and behaviour. In addition to integrity in research and loyalty to an employer, particularly as regards confidentiality, scientists are expected to speak out if their work throws up any environmental or health hazards, even though such revelations may damage

their employing company.

Some of the disquiet scientists feel towards government was expressed last week by the President of the Royal Institute of Chemistry when, in reply to the former Prime Minister, he voiced the irritation at the currently fashionable expression "the two sides of industry". The point is, research scientists in industrial laboratories do not see themselves as being on either side. They feel their views are not being sought, much less heard or heeded, on major issues. When British opinion is being moulded to support wealth creation, they believe that as major wealth creators they are not beneficiaries of that support.

Crucially, scientists see the innovations of research and development as the source of profit of leading companies—failures to exploit science (as with the loss of patents on antibiotics or jet engines) not being the fault of the originators. Chemists in particular are disgruntled because they feel largely responsible for the country's thriving chemical industry and its near relatives in petrochemicals, pharmaceuticals and so on. The companies concerned do not include any of the famous lame ducks. They are almost never involved in industrial disputes. They are highly scientifically innovative. They make the profits which are taxed to support other industries unable to stand up to international competition because, in many cases, of their small research investment.