25 December 1970, Volume 170, Number 3965

SCIENCE

Science on a Tight Budget

The British Science Research Council is now facing tight budgets. We have had to defer reaching a decision on several scientifically desirable major projects because, without an assurance of reasonable growth in our budgets, we cannot be sure of carrying every such large project through even when we know we can start it. We have not yet had to turn down any single outstandingly brilliant idea, however, and I hope we never shall. For sifting the bulk of the ideas that are put to us, the Council has been developing a policy of "selectivity and concentration."

In essence, the policy means preferential support for first-rate people doing first-rate science at the right places. In making our choices, we rely on the advice of independent scientists and engineers from universities, industry, and government. Each of the subject committees on which they sit has tried to pick out genuinely promising—as distinct from fashionable—fields for special encouragement. The inevitable corollary is marginally less support for fields not so selected.

We have also been publicly recognizing what no one privately denies: not all the 50 or so British universities can be equally good at everything. We have to concentrate our support: for example, only three major centers of control engineering, or two in enzyme chemistry and technology. This concentration may lead to only a dozen of our 50 universities becoming recognized as generally strong in science and engineering. The less favored may not even have an equal opportunity to achieve excellence, except in the very long term. That is something I do not feel comfortable about, but the alternative is to spread our limited resources too thinly to be effective anywhere.

There is a good sense in which our chosen centers may be self-perpetuating; namely, they ought to continue to attract bright young scientists and produce good ideas. But there is a bad sense, too; namely, we may be too scared to close them down even when the claims of others become stronger. We shall need courage. Moreover the most important discovery in British science in the next 30 years may well be made in a field no committee would select and at a university few people have heard of. That is why we insist that we shall always support outstanding scientists, whatever they do and wherever they work, and shall always provide funds for trying out good new ideas.

We are also insisting ever more strongly that the universities themselves provide reasonable backing for the research we support. A university may, therefore, be unable to start a new line of research, even with our support, unless it stops something else. I am unrepentant about that. "In recent years, it has become just a bit too easy to get a Ph.D. of sorts, and an academic job of sorts, and a grant for research of sorts—to produce yet more Ph.D.'s of the same sort."*

So I am not despondent. And, though as an outsider I hesitate to comment, I hope the greater difficulites in the United States will do no lasting harm. They may even do good, by allowing the rest of us to catch up a little with you, so that you become the leaders of a world community of scientists instead of an Olympian elite that we cannot hope to compete with. And in a few fields, together with our colleagues in Europe, we shall continue to challenge your leadership.

—BRIAN H. FLOWERS, *Chairman, Science Research Council, London*

* J. M. Ziman, "Some pathologies of the scientific life," *Advan. Sci.* **27**, 13 (1970).