

## New Scientist and Greenpeace Science Debates

### Science, technology and our future: the big questions

#### Can Science be directed?

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In the late 70s science became directed more subtly. By the research councils, They wouldn't give money for this, they would give money for something very directed. I would regard the 70s as the dark ages of scientific research in the UK. Very specific projects with grants for 2-3 years. Regular six month reports. Most of the decisions of the research councils were taken by redundant scientists who couldn't do their research and found jobs as administrators and then they tended to dumb down science, so I think that held science back in the short term.

It became apparent that there were key problems - world problems that needed resolution. The environment, agriculture, economy, health, quality of life. And then it became appreciated that most of the solutions were science and technology based, which they are. Also that the UK did about 5% of the world's research and the research base of the world was expanding

exponentially and there were a plethora of labs all across the world that were doing the same thing and that the UK couldn't compete on everything.

So the next point was then let's use science to give us competitive edge in key areas that would make a difference in this country. And basically that is what led us into Technology Foresight. It directed science not into producing plants that fixed nitrogen in 3 to 5 years, but what were some of the broad areas that were of importance to the UK whether it was on the economic side, whether it was on the environmental side, or whether it was social influence. And within that broad area, if you can't do everything you've got to decide which broad areas that might be of importance to the country. And then you say within these broad areas you give scientists their head to find out to make discoveries that might benefit that area.

So I became totally convinced that science and technology had much to offer not in a hundred years time but over the next ten or five years time. That the taxpayer should not be paying everyone to do a PhD irrespective of the quality of the PhD. It seems to me totally wrong that anyone who gets a 2.1 or first should then get a grant from the government to go and do a PhD and be supported by the taxpayer for the next 40 years to do what they like. And also I wonder about this thing we have got about Nobel prizes--we emphasise Nobel prizes but each costs the UK taxpayer about 20 m pounds per Nobel prize. Is that a good use of resource or not? The public has to judge that as the taxpayer is paying for it.

I do believe however that the very best scientists should be given the freedom to carry out their research and it is best if they work at a university where there is a lot of private resources available for them. For the bulk it would be better I believe for them to be broadly directed, broadly influenced by what they can do for the UK whether it is by spinning out new companies, whether it is by improving the environment, whether it is producing agriculture, whether it is producing better agricultural crops, and if we can't do that then I question the extent to which the taxpayer should consider it.

