## The role of science in future

**Science** 



The role ofscience and technologyin future design will be discussed from the perspective of someone who has lived all his life in the United States and whose scientific experience has pned the years since the late 1930s. It is likely that the reader will find in my discussion characteristics that apply to many developed countries and developing oneslnasmuch as scientific progress is highly dependent on financial support and, in modern times, on general societal support, it is appropriate to discuss the interaction of science and society. Using the United States as an example, some of the topics to be discussed are the views of public officials who influence the distribution of research funds, the response of funding agencies and the views of scientists. Finally, we shall look at the co-evolution of science and society and attempt to draw some conclusions concerning their related future and the implications for the future oftechnology.

As a consequence of recognizing the economic benefits that derive from the development of novel, successful technologies, governments have been attempting to direct research, supported with public funds, toward subjects that are perceived as national priorities. This contrasts with broad-based "curiosity" oriented basic research. 2. The views of scientists, a distinguished economist, some industrial leaders and an editorial comment in a distinguished science journal provide very strong indications that governmental management of goal-oriented research is replete with uncertainties and pitfalls and, although well-motivated, may cause serious damage to the scientificculture. This, of course, would defeat the original purpose, since the co-evolution of science and society is a very-well documented and irrefutable phenomenon. 3. Strong arguments are

presented in this article by individuals and groups that support the current system of governmental funding of a very broad range of scientific efforts as probably being as close to optimal with regard to national priorities as is possible.

No one can predict with any certainty what the most successful inventions and technologies will be in the future. The economic return on federally supported funding was the subject of a report by the Council of Economic Advisors to President Clinton. This report was released in November 1995. It documents high returns to the economy and the importance of governmental involvement