

R&D and innovation in industry

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R&D investment by US industry has increased some 10 per cent in each of the past six years; but this growth pattern will decelerate in 2001. The area of R&D in industry with the highest rate of growth over the past six years has been in basic (or directed basic) research; it is expected that the rate of growth in this area will also be less in 2001. Innovation and the effective management of technology have become a top priority for nations as well as companies, to stimulate economic development and strengthen their competitiveness. Allocation of R&D for the development of new businesses is seen as a key growth strategy by firms in most parts of the world.



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Introduction

This article reviews the R&D investment made by industrial firms in recent years, indicates the projection for industrial R&D investment in 2001, describes recent initiatives by other countries to stimulate innovation, and summarizes results of the Industrial Research Institute's (IRI) annual R&D trends forecast for 2001.

R&D investment

R&D funding by industry extended its recent pattern of healthy growth in 2000, making it the sixth consecutive year of increases above or near double-digit levels. NSF's Science Resources Studies Division has estimated that the increase for 2000 over 1999 was 10.8 per cent, taking industry's R&D investment to \$ 181 billion last year. IRI's trends forecast for 2001 indicated that this growth would continue, but at a considerably lower rate of increase. This forecast was supported by

Battelle, which projected an increase in industry R&D funding of only 5.5 per cent for 2001, to \$ 191 billion.

R&D investment by industry over the past 10 years is shown in Figure 1. Year-to-year percentage changes are shown in Figure 2. A rapid deceleration of the US economy in the last quarter of 2000 and into the first quarter of 2001 could result in even lower growth this year than that projected by Battelle.

Industry's performance of R&D in 2000 was \$ 202 billion, up 12.2 per cent from the \$ 180 billion in 1999. Battelle projects that this figure will increase 5.9 per cent during 2001, bringing industry's total R&D effort to \$ 214 billion this year. Thus, industry will fund nearly 69 per cent and perform some 77 per cent of the total of \$ 278 billion that Battelle estimates will be invested in R&D in the USA during 2001.