

- III. **Universities and Colleges**, composed of universities, colleges, and their affiliated institutions, agricultural experiment stations, and associated schools of agriculture and of medicine, and FFRDCs administered by educational institutions;
- IV. **Other Non-profit Institutions**, consisting of such organizations as private philanthropic foundations, nonprofit research institutes, voluntary health agencies, and FFRDCs administered by nonprofit organizations.

The President's Management Agenda (PMA)

The Office of Management and Budget (OMB) of the White House has developed criteria for federally funded R&D programs as the OMB found that the ultimate goals of projects funded by federal research are not always clear. The OMB is implementing objective investment criteria covering federally funded R&D projects to be used to assess past and future R&D performance. The Department of Energy (DOE), which spends more than 40% of its budget on R&D, has been serving as a pilot for this initiative. The OMB plans to use these criteria for all federally funded R&D in FY 2004. In February 2002, the National Academies ran a one-day workshop on criteria to extend the process from applied to basic research. Key speakers (OMB Chief Daniels and the President's Science Advisor Marburger) expounded on the necessity of controls in evaluating S&T projects and programs. In a recent speech Dr. Marburger supported the above by stating: *"I believe society will continue to support the exploration of the traditional frontiers of large and small (science), but it will do so with increasing insistence on careful planning, careful management, and the widest possible sharing of costs for the necessarily expensive equipment. Fortunately, these fields today do possess excellent planning processes, and for the most part the great accelerators and telescopes have been well built and well managed"*. The FY 2002 budget has been influenced by the PMA, but was offset somewhat by the funding reversals of Congress.

A) United States R&D Budget for 2002

R&D spending for Fiscal Year (FY) 2001 was estimated at about **\$180 billion** by industry (although no survey results are yet available from NSF for 2001) and **\$91.4 billion** by the Federal Government, a total for the US of **\$271.4 billion**. The S&T structure in the USA is described above under the *four principal economic sectors*, but R&D funding is dominated by two of the economic sectors (industrial and government). The other two economic sectors (universities and colleges and, other nonprofit institutions) represent only 5% of US R&D funding. In terms of who performs the research, only 25% of the Federal Government R&D funding stays in-house. Industry performs the majority of research at 76%, followed by universities and colleges at 14%, the Federal Government at only 7%, and the nonprofit institutions at 3%. Both industry (\$16 billion) and the US Federal Government (\$22 billion) fund most university research (about **\$38 billion**).

In **Fiscal Year (FY) 2002**, total Federal Government support for R&D exceeds \$100 billion for the first time, due to a record dollar increase of \$12.3 billion it stands at **\$103.7 billion**, an increase of 13.5% over FY 2001. Increases are spread across the entire breadth of R&D programs in the federal portfolio. Congress allocated far more for R&D to the Department of Defence (DOD) and National Institutes of Health (NIH), the two largest R&D funding agencies representing 70% of total federal R&D funding, which reflects the high priority placed on defence and health by Congress and the Bush Administration. The FY 2002 funding picture hides the true nature of the struggles between Congress and the Administration over federal R&D funding. Congress continues to provide funding increases, while the President is struggling to hold funding down by the implementation of *"The President's Management Agenda."*