

In the future, these and other new big science projects such as the Space Station, the Human Genome Project, the Global Change Research Program, and the Clean Coal Technology demonstration program can be expected to have important commercial spin-offs.

### KEY ORGANIZATIONS

The United States federal government with a budget of some US\$1.2 trillion is a huge force in the development of technology. This has been especially true in computers, communications and information processing technologies. Some of the key organizations influencing technology development in the United States federal government are:

#### *The Department of Defence (DOD):*

DOD, with an annual budget in the order of US\$300 billion, has and will continue to have a major influence on many areas of technology development with an emphasis on information technologies, advanced industrial materials and transportation R&D (air, land, and water). Canadian companies by virtue of the Defence Development/Defence Production sharing arrangements enjoy special access to many DOD procurements. One agency of special note is the Defence Advanced Research Projects Agency (DARPA) which is DOD's primary funder of advanced R&D and is the only agency in DOD whose mandate is to maintain United States' technological superiority without having to tie its work directly to a particular defence mission or project.

#### *National Aeronautics and Space*

*Administration (NASA):* NASA, with an annual budget of US\$10-12 billion, is the largest funder and procurer of advanced technologies in the civilian side of the United States government. With major programs in space science, space transportation, manned space flight, remote sensing and communications satellites, it funds work in virtually all areas of R&D.

*Department of Energy:* The Department of Energy also has a large and diversified procurement of advanced technology goods and services, while access to its nuclear weapons programs will remain relatively closed to non-American companies. The massive clean-up of its weapons plants may provide opportunities to Canadian companies with expertise in nuclear/environmental technologies. New and renewable energy research is being revived under President Bush after being virtually eliminated during the Reagan administration. Almost every other agency of the United States federal government procures high tech goods under contract, many of which are open to Canadian companies by virtue of the Free Trade Agreement (FTA) and the General Agreement on Tariffs and Trade (GATT).

### KEY SUPPORT PROGRAMS

The United States federal government has relatively few direct industrial support programs. The major influence is the massive size of the federal procurement for virtually the complete range of advanced technology goods and services. However, many states now have industrial/technology development support programs, most of which are directed at supporting or attracting local industry.

Every federal government department is required to operate a Small Business Innovation Research program (SBIR). This program is directed at United States resident companies, often start-up companies or older companies trying to diversify.

The United States federal government has in place a 20 percent R&D tax credit. Until now this credit has been subject to a two year or shorter life cycle. President Bush has proposed making the credit permanent and expanding the criteria for eligible expenses.