

- Trade development in such technology-intensive sectors as: Environment, Geomatics, Laser, Robotics/AI, and Space Product sectors, and
- Promotion of Canada as an S&T based nation

2. Snapshot of Germany S&T in 2002

- A) Germany R&D Budget for 2002**
- B) S&T Structure in Germany in 2002**
- C) S&T Organizations in Germany in 2002**

Germany is among top five G-7 countries for funding scientific research and technological development (R&D). It ranks as third among the G7 countries and number four in Europe. Its overall spending on R&D in 2000 was Euros 50 billion (Euro 1= Cdn \$1.40 approx), 2.46% of its GDP.

The dominant funder of German research is the private sector, contributing over 60% to the national R&D spending. The general pattern of R&D expenditure has been: 65.5% of R&D funds originating from business enterprise, 34.1% from the government sector (both Federal and Laender-provincial levels), 0.3% from private institutions, and 2.4% from abroad (last available figures from 1999). As R&D performers, Industry ranks the highest performer (68.8%); followed by Government (14.4%); and Higher education (16.8%).

Over half of Germany's industrial production is accounted for by R&D-intensive industries. The sectors of German industrial core competence continue to be: automotive, pharmaceutical and medical devices, chemicals, and production engineering. Over the past two decades, the amount of R&D being done in the automobile industry has increased substantially, in fact it has doubled since 1980. The pharmaceutical sector however has declined considerably. Participation in private sector R&D activities is on the rise, particularly among SMEs. New emerging R&D based industries include firms involved in telecommunications, information technology, biotechnology, lasers and micro-systems technology.

The number of patents with world market potential (generally called "triad patents") has grown rapidly since 1995. Germany has matched the rate of increase that the USA has achieved in patents with world market potential. It continues to report, along with Japan and the USA, one of the highest patent intensities in the world (measured as the number of triad patents per capita or per gainfully employed person). Looking at the number of applications submitted to the European Patent Office, in 1997 Germany broke its own record of 1989 as the leader in this area.

Germany continues to be very highly specialized in technological terms - in the area of advanced technology (eg. railway, automobile sector, electrical power generation, medical equipment, pulp and paper machinery etc). The cutting-edge technology fields in recent years however have been the fast-growing ones (telecom, medical electronics, turbines, agro-chemistry, advanced electrical engineering etc).

A) Germany's R&D Budget for 2002

The government has continued to boost funds for R&D over the past three years, re-affirming the present SPD-Green government's commitment that research and skilled expertise remain