

Biotechnology enterprise in Germany*

Biotechnology is identified as a key technology for the German Government at different levels. The general policy goals are to promote basic research as well as high level research to support research efforts in the environment, health, nutrition, energy and raw materials supplies to improve the research infrastructure (particularly the framework conditions for research and development in industry), to foster investigations on safety and ethical issues and to strengthen technology transfer and commercialisation, e.g. by supporting SMEs.

The “Biotechnology 2000” covered the period from 1990 to 2000. The aim of the programme was to strengthen the process from invention to innovation and to extend the scientific base. The programme activities centred on the human health and environment areas.

The Faktenbericht forschung 2002 report indicates that EUR 179 million will be spent on the National Genome Research Network from 2001-2003. The National Genome Research Network will fund research in five areas of disease and disorders that affect large numbers of people. As well as funding human health research the National Genome Research Network will integrate ethical, social and legal issues of genome research.

The Federal Government also allocated in both 2001 and 2002 approximately EUR 150 million to “Biotechnology - using and shaping the opportunities”. This programme supports innovation in biotechnology and genetic engineering as well as funding genome research and supporting reorganisation on

* Based on OECD (2003). “Biotechnology Statistics Predominantly from Official Sources”. Working Party of NESTI.

industrial processes with the help of biotechnological methods to make them more sustainable (Federal Ministry of Education and Research).

The European Biotechnology Innovation Systems (EBIS) report that the German public's general perception of biotechnology is sceptical, especially with respect to genetic engineering approaches in agriculture and food processing. The German Government has sought to address some of these fears through public education, of which an example includes a programme to enable school pupils to consciously cope with new technologies in general and with modern biotechnology in particular.

In 2001 the German Federal Office conducted a voluntary survey of biotechnology enterprises. The Federal Statistical Office estimates that the definition used in their survey aligns itself to the narrower OECD definition.

Based on survey responses from 876 enterprises, the Federal Statistical Office estimates that there are 18 839 people employed in biotechnology. Furthermore 9 906 people were employed in 'core biotechnology enterprises', of which the majority of enterprises had 100 or more employees.

The German Federal Statistical Office estimates that there are between 500 and 550 core biotechnology enterprises that work with mainly modern biotechnological procedures. The core biotech enterprises which provided information in the survey reported turnover per employee of just under EUR 60,000. However it is especially the larger businesses of the life sciences industry that contribute much to - the economic power of biotechnology in Germany. The 24 big enterprises in life science who responded reported a turnover (biotechnological products) per employee of just under EUR 388 000.

Large enterprises in life science industry reported a total turnover over of about EUR 3.5 billion in 2000. Core biotech enterprises reported a total turnover of EUR 594.

EUROSTAT's NCRONOS database which reports on Government budgetary allocations or outlays to R&D recorded German biotechnology

GBAORD as being EUR 501.625. This figure reflects all public expenses associated with biotechnology.

The official report “Faktenbericht Forschung 2002” of the Federal Ministry of Education and Research (BMBF) reported that the German Federal Government had allocated EUR 261.3 million to biotechnology research funding for 2000. This compares with EUR 246 million for each of 1998 and 1999 and EUR 324 million for 2001.

