

BioPolis - Inventory and analysis of national public policies that stimulate research in biotechnology, its exploitation and commercialisation by industry in Europe in the period 2002–2005

National Reports

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This CD-ROM holds the 32 National Reports of the BioPolis project. It is provided as supplement to the BioPolis Final Report. Together they are the products that hold the main results of the BioPolis project.

The aims of the BioPolis project were:

- to provide an up-to-date and detailed overview of national policy instruments (including research funds) in the field of life sciences and biotechnology that existed in the period 2002-2005 in all EU 25 Member States, four Accession Countries, and Norway, Iceland and Switzerland
- to assess the effectiveness of biotechnology policies by exploring the relationship between national policy approaches towards biotechnology and the performance of the respective national biotechnology innovation systems.

The 32 National Reports each have a similar structure. Chapter 1 firstly introduces the country along a number of items: GDP, number of inhabitants, most important economic sectors, public and private R&D expenditures also as percentage of GDP and a short description of the size and main characteristics of the national biotech sector. Accordingly, it gives a short overview of – the history of - national S&T and Innovation policies, the main policy making actors and the main research actors in general and specific for biotechnology; for the latter also regulation and public acceptance is included.

In Chapter 2 of the national reports, the policy instruments used in a country are presented. In the BioPolis project a distinction is made between policy-directed funding and non-policy directed funding of biotechnology.

- Policy-directed funding includes funding which was directed by explicit policy decision making about installing a specific instrument (such as specific R&D programs, programmes encouraging collaboration, support for start-ups etc). This policy-directed funding can include biotech-specific policy instruments and generic policy instruments.
 - => Biotech-specific policy instruments are instruments that have been specifically set up to stimulate biotechnology.
 - => Generic policy instruments are instruments that are not dedicated to a specific technology, but which in principle stimulate all technologies, including biotechnology. Generic instruments are included in case a reference is made in policy papers to (the stimulation of) biotechnology activities in the policy.
- Non-policy directed funding of research includes funding which is part of the structural governmental support for scientific education, research and research infrastructure. In the BioPolis project only the funds for block grants to (government) research institutes and through the open-call system of research councils are included.

The presentation of the performance of each country (in Chapter 3) is structured along the four main areas of the national innovation system. For each, a number of indicators is used:

- the knowledge base indicators are: number of biotech publications per million capita and as share of total number of publications, number of citations per biotech publication and graduates in life sciences per million capita;
- indicators processes of knowledge transmission and application, indicators are: number of biotech patents as share of number of biotech publications and per million capita and number of start-ups per million capita;

- industrial development is measured by number of biotechnology companies per million capita, biotech Initial Public Offerings per million capita and Venture Capital invested in biotechnology companies per capita;
- Indicators for market conditions are: number of field trials and numbers of approved biomedicines.

The performance is presented for two or three time periods (depending on data availability). Each time period includes several years, to avoid capturing erratic trends. National trends are benchmarked against the performance of the EU25 Member States and the United States. The values of EU25 have been chosen as reference in each indicator. The absolute figures that are used to calculate the values for the indicators presented and the sources for the data are presented in an annex.

Chapter 4 provides an overview of the main characteristics of the group of policy-directed instruments that have been used by the national and regional governments in the period 2002-2005, to stimulate biotechnology R&D, technology transfer and commercialization. The overview summarizes the funding of biotechnology, in terms of the types of policy instruments used, the policy goals addressed, the biotechnology areas funded and the activities that are stimulated. For the old member states it also provides a comparison with the period 1994-1998.

Finally, Chapter 5 describes the future plans at the national and regional level regarding the generic and specific stimulation of biotechnology.

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