

Biotechnology in Poland

Good Logistics Raise Hope

Economically, Poland is getting ready for take off. However, the situation for biotech firms is not perfect.

The Republic of Poland has a population of 38 million people. It boasts approximately 99 universities, which are either private, public or polytechnic, or specialise in medicine or agriculture. Biotechnology in Poland is many-faceted and has its strengths and weaknesses. Tomasz Twardoski reported in "Legal and social aspects of biotechnology in Poland" (*Acta Biochemica Polonica*, 2005) that strengths include the Polish legislation system, which covers European directives; high level of education in the natural sciences; well-educated young people and good logistics in academic cities like Warsaw, Poznan, Łódź, Gdansk, and Wrocław. Weaknesses are the general economic situation, poor industry, the patent situation and the transfer of new technologies from academia to industry.

Budget increases for institutes

The actual state of biotechnology in Poland does indeed support Twardowski's conclusions. Polish universities and institutes are well equipped and boast very well-qualified scientists, something reflected in the country's number of international publications. The Polish research scene is on a par with its western European neighbours. In many institutes, funds have increased over the last 10 years by several hundred percent. The best example is the International Institute of Molecular and Cell Biology in Warsaw, whose budget was increased from €500,000 in 1999 to €2,800,000 in 2005.

Still, there are only a few biotechnology companies. The *ScanBalt newsletter* (a publication promoting the biotechnological development of 11 countries between Germany, Iceland and North Western Russia) reports that Poland has 60 of them. Another source, the *Life Sciences and Biotechnology in Poland* study, made by the German BioCon Valley association, alludes to "under 70" companies. A 2004 report by the Polish Ministry of Science even counted about 200 companies in the biotech sector.

These numbers, however, differ considerably from the OECD biotechnology statistics of 2006, which state that there are just 13. The OECD statistic is based on information given by the Ministry of Education and Science. According to the Ministry, biotechnology employs nearly a thousand people, half of whom work in production and a hundred in research and development. Most are working in red and white industrial biotechnology.

Confusing sources: About 200 or just 13 biotech companies?

The GAIN Report 2006, published by the Global Agriculture Information Network, reported that the Polish government has strongly opposed green biotechnology, but that there is growing optimism it may permit the limited use of biotech for feed and bio-fuel production. Whilst

farmers' interest in biotech cultivation is growing, consumers remain strongly opposed to biotech food products. It is unlikely that this situation will change anytime soon.

To develop a strong national industrial biotechnology sector, an investment in science parks must be the next step to support technology transfer from academia to industry. EU funds are supposedly available. In this respect, breaking up in Poland will not be hard to do.

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Warsaw 's tallest landmark: The Palace of Culture and Science (originally known as the "Joseph Stalin Palace"). The heights scaled by Polish biotechnology, however, are debatable.



Warsaw's skyline.