



Norway

Life Science

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Overview

The Biotechnology Sector in Norway has not had the benefit of a pharmaceutical sector with long traditions, with the exception of Nycomed, now part of GE Healthcare. Despite this, the ingenuity of Norwegian researchers, and the entrepreneurial nature of Norwegians has led to a number of innovative and highly specialised technologies emerging from the country's research institutions. In addition, the hospitals and universities in Norway have had a history for being in the forefront within medical research with expertise rivalling the better-known world-leading institutions of America, Europe and Asia. With this Norway is home of the WTO centre for telemedicine and Hewlett-Packard has made Oslo home of their European Centre of Excellence for Health. From the traditional sectors of Norway, such as the petroleum, chemical and marine some biotechnology companies have emerged, but this is less than 20% of the total.

At the end of the last century, the Norwegian government challenged the academic institutions to become more commercially driven, resulting in a number of small biotech companies. Today, Norway has approximately 100 small to medium sized healthy biotechnology companies. The latest figures for the industry (2006) shows that 115 companies, including service providers, had a revenue of nearly NOK 12 billion and employed 4 800 man-years in 2004.

Market Characteristics

In 2005 Innovation Norway and The Research Council of Norway commissioned the study Norwegian Life Science Industry, Overview and Status. In the aftermath of this, the two organisations have built a strategy around the areas where Norway has particular strengths. It is well worth noticing that in the four pillars of Norwegian biotechnology research, the scientists, the science and technology is world leading.

The biotech sector in Norway has a larger number of established companies than the rest of Western Europe and the US measured on a per capita basis. According to Innovation Norway the number of biotech companies has increased from less than 10 to 110 over the last 15 years, this is also a doubling over the last five years, which is even more impressive, considering the size of the population. Although the term life sciences is used in this document, it is important to note that many of the fields where Norwegian biotech companies and organisations are developing or manufacturing technologies and products for, have usage beyond healthcare and drug development.

The four main focus areas of Norwegian biotechnology are:

- Cancer Research – With a strong research base around the capital, Oslo Cancer Cluster has already attracted the attention of all leading pharma companies.
- Marine biotechnology and bioprospecting – As the country has traditionally looked to the sea for its resources, it has gained a vast knowledge of the elements and novel bioactives are being found, particularly in the arctic region.
- Bioanalytic – Particularly the diagnostic sector has been successful and the earliest startups of Norwegian biotech companies such as GenoVision and genPoint worked in this area.
- Biobanks – The Norwegian health services keep a vast amount of data in health registers and has conducted several regional health studies.

Predominantly the research has been carried out by universities or affiliated research institutes. However some of the most successful companies have been spun out of traditional industries. Two examples are Dynal (now part of Invitrogen), which has its origins in the explosives manufacturer Dyno Nobel, and Pronova Biocare, which originally was a fish oil refinery dating back to 1838. Dynal is a supplier of reagents, and Pronova manufactures and markets medicine for the treatment of heart conditions and nutraceuticals.

Opportunities

The companies and the technology originating from Norway are in such a situation that they will not survive unless they form international collaborations. They are actively looking for partners, and Great Britain has an advantage with its strong position in the European market. Norwegian companies and research facilities have a tradition of co-operating with the UK.

At the end of 2006 Oslo Cancer Cluster (OCC) was established. This is a network organisation dedicated to developing the region's excellence in R&D and increase the co-operation between its members. The Oslo region has traditionally been strong on cancer research, which has historically been based around the Radium Hospital. The region has also been the birthplace of companies such as PhotoCure, Algeta and Affitech, all part of OCC. Other members include Alpharma, Astra-Zeneca, Bristol Myers Squibb, GSK, Pfizer, Biotec Pharmacon and Inovio. (www.oslocancercluster.org)

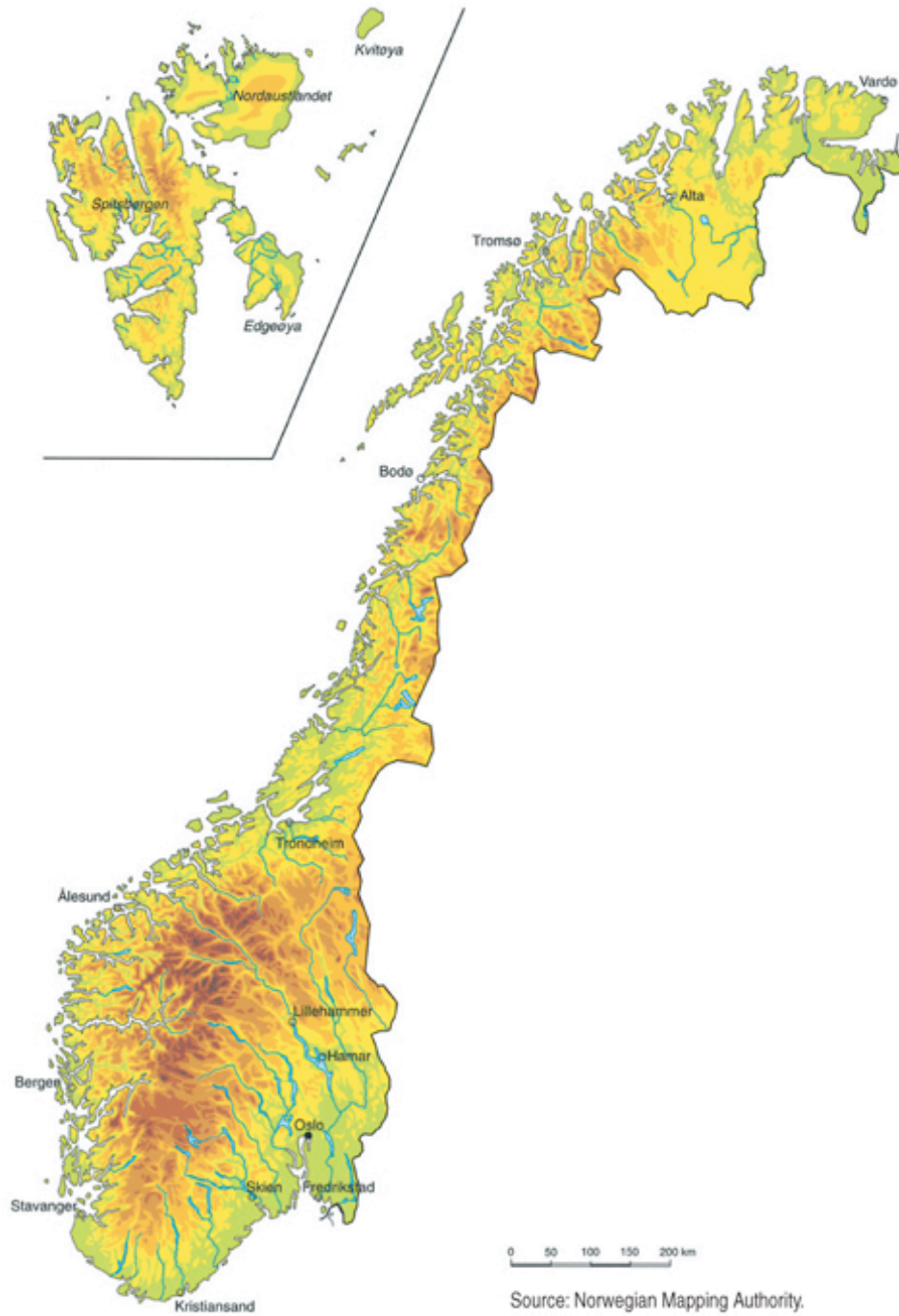
The Norwegian biobanks, such as CONOR, The Cancer Registry of Norway and Marbank (aquaculture) have vast collections of unique data available. However, these have not yet been utilised to their full potential. With this, on 27th October 2005 a UK – Norway memorandum of understanding was signed to ensure closer collaboration, focusing on chronic childhood diseases such as autism, ADHD and diabetes 1. Norway has the data, the UK has the equipment and scientists to fully exploit the data to its full potential.

Aquaculture, marine bioprospecting and new species development and breeding is an area where both the UK and Norway are world leaders. Norway has the know-how, the resources, platforms and technologies available. However, there is a shortage of experienced personnel, as well as a need for partners to reach maximum output of the potential.

A particular weakness in the Norwegian market is the lack of skilled management professionals within the life science industry. This has been identified as a challenge to ensure the continuity of the industry's growth by both government bodies and the industry itself. The action suggested by industry consultants is to attract foreign expertise and set up international bridgeheads.

Map

Norway, with Svalbard



Sources

Statistics Norway
Innovation Norway
UKTI