

## PROSPECTS GOOD FOR FINNISH NANOTECHNOLOGY SECTOR

The Finnish nanotechnology sector is showing impressive growth. The number of Finnish companies active in nanotechnology has more than doubled from 61 to 134 in just two years. Over 40 of these companies already have commercial products based on nanotechnology. Development has been seen in all of the key sectors of the Finnish economy, from electronics to forest products. The main factor behind the increase in activity is Finland's National Nanoscience and Nanotechnology Programme, FinNano.

These impressive results are uncovered by the "Nanotechnology in Finnish Industry" survey, published today, 27<sup>th</sup> March 2007, at the 2<sup>nd</sup> Annual Seminar of the FinNano programme. The biannual survey studies the evolution of the Finnish Nanotechnology scene in the period 2004-2006. Over 200 firms were surveyed for the study by Spinverse Consulting to identify companies with commercial products, research activities or a defined nanotechnology strategy.

The commercial products on the market cover a full range of applications, from industrial equipment to consumer products. The latter includes suits from Turo Tailor, which are made using a nanocoated textile that repels water, and ski wax developed by Startex. Sporting equipment has also been impacted by nanotechnology, such as high-performance skis by Atomic.

Industrial applications include Finland's prominent atomic layer deposition (ALD) cluster. The ALD technology enables coatings the depth of a few atoms to be applied to materials to alter or improve their performance. The technology, originally developed in Finland almost 30 years ago, is now generating multi million dollar markets worldwide with applications ranging from electronics components to flat panel displays.

Encouragingly, firms surveyed revealed a comprehensive pipeline of research activities, which are expected to come to market in 1-3 years. Until now, the impact of nanotechnology has been greatest in the materials sector, but it is expected to be felt next in electronics, followed by life sciences. Examples of applications in the research pipeline include functional paints and coatings, building materials, active packaging, sensors and quantum-mechanical lasers.

Challenges also lie ahead. Making the transition from small scale prototype to volume production is far from straightforward, finding commercially viable applications of advanced technology can be difficult and problems arise from shortages of funding at certain stages of development. In the fast pace of development, it is also very important to take into account issues of environment, health, safety and corporate responsibility.

The main factor behind the recent increase in company activity is the national FinNano program, which covers funding and support activities from Tekes, the Finnish Funding Agency for Technology and Innovation and the Academy of Finland. Tekes' funding, in particular, is directed to innovative projects which address clear commercial needs.

Many of these innovative Finnish companies will be present at the FinNano Annual Seminar which outlines the Finnish nanotechnology strategy and presents interesting examples of on-going research and industrial projects. The FinNano Annual Seminar precedes Nanotech Northern Europe 2007, the region's largest nanotechnology event.



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**The Nanotechnology Finnish Industry survey** is conducted by Spinverse Consulting, the coordinator of Tekes FinNano technology programme. The survey was first carried out in 2004 and repeated in 2006. A number of companies have been identified that are indicative of some of the trends mentioned in this press release. Their contact details can be provided upon request.

**Spinverse Consulting** accelerates the commercialisation of nanotechnology. Spinverse combines scientific and industrial expertise to produce information about the development and market potential of nanotechnology, evaluates the most promising applications, and showcases the achievements of the leaders in the field. Spinverse is the lead organizer of Nanotech Northern Europe and the coordinator of Tekes FinNano Technology Programme.