



Nanotechnology for all!

New knowledge and new products for a sustainable civilisation. Lund University's establishment in Science Village makes it all possible.

Sweden ranks among the top countries for innovation, with a high reputation and strong commitment to addressing climate and environment issues. The country has a long tradition of collaboration between industry and academia. This has been productive. Sweden has the largest number of multinational companies per capita and a tradition of creating attractive conditions for research-based entrepreneurship.

Scientific progress and technical innovations combined with cheap energy and raw materials that were considered inexhaustible have underpinned the welfare of Sweden and the Western world since the start of industrialisation in the mid-1800s.

Now natural resources such as oil, gas, minerals, rare earth metals, clean water and air have become, or will soon become, scarce. This development has also brought climate change, environmental problems and health challenges.

We are now taking the next technological leap forward. At Lund University, investments in basic research in nanoscience have already resulted in a series of products that benefit humanity, the climate and the environment.

Technical solutions optimise today's solar cells, enabling them to convert solar energy several hundred times more efficiently. We have medical applications, new, energy efficient, environmentally friendly optical water purification and new lighting technology. Highly sensitive, robust radar technology with low electricity consumption serves in consumer products both large and small. Radar technology is used in drones, for example, to facilitate aid work in connection with natural catastrophes, but it is also

integrated in self-driving lawn-mowers that have learnt to give way to hedgehogs. Self-driving lawn-mowers have proven to be a serious threat to the world's oldest mammal.

The list of applications within nanotechnology can be made even longer. All modern electronics are based on nanotechnology.

The technical innovations already engendered by nanoscience are only the beginning of the industrial engineering leap of the 2000s, and they build on long-term investments in basic research.

NanoLund at Lund University is building a new, modern laboratory in the middle of Science Village, an international, innovative research and entrepreneurial environment which is developing around ESS and the MAX IV Laboratory in Sweden.

Nanolab Science Village and its proximity to the new, exclusive research facilities and to industry will offer our researchers unsurpassed opportunities to provide industry and humanity with new knowledge and new products for a sustainable civilisation.

Imagine this being possible thanks to you!

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