



Pioneering the nano-revolution

Excellent basic research and application at Lund University unite researchers and improve the world – if we are patient and invest!

In the 1850s, when the British finance minister William Ewart Gladstone asked the physicist Michael Faraday about the use of his research into electricity, the scientist responded: “One day, sir, you may tax it”.

Since then, electricity has not only provided states with major tax revenues, it also resulted in revolutionary societal change.

Exploring completely unknown territory with no immediate demands for utility is the basis for our successful civilisation. The really major breakthroughs are rare, but we are now facing a new revolutionary paradigm shift in society, based on curiosity-driven basic research in interplay with purposeful engineering.

Everything that makes our world more than a dead and uneventful gas cloud happens between tiny particles that are around one nanometre in size, which is a billionth of a metre. Atoms, molecules and small particles combine, separate and form again in continuous cycles.

Thanks to our curiosity-driven basic research, we have learnt to use Nature’s smallest components to build things ourselves, exploiting and controlling the opportunities offered by Nature. This is known as nanoscience and researchers at Lund University are pioneers in this ground-breaking field of research.

A relatively moderate investment in Lund’s nanoscience research in the 1980s has been well managed and has grown into the successful interdisciplinary and comprehensive research environment known as NanoLund. It brings together researchers in engineering, science, social science and medicine, as they examine the tiniest components in Nature in basic and applied research of the highest class.

The researchers “nano-craft” structures in advanced laboratory environments using Nature’s tiniest components for new scientific breakthroughs. Sustainable applications to meet our civilisation’s need for energy, diagnostics and treatment, communication, water treatment and lighting are just a few examples where we already see results or are on the verge of crucial breakthroughs. However, the researchers have now outgrown their laboratory.

In Science Village outside Lund, an unparalleled environment for research and entrepreneurship is being built around two exclusive new research facilities, ESS and the MAX IV Laboratory, which enable researchers to study the tiniest structures in various types of materials they develop.

This is where the researchers at NanoLund want to establish Nanolab Science Village. The proximity to these facilities and emerging industries offers unsurpassed opportunities to provide humanity with new knowledge for a sustainable civilisation.

Imagine this being possible thanks to you!

CONTACT

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