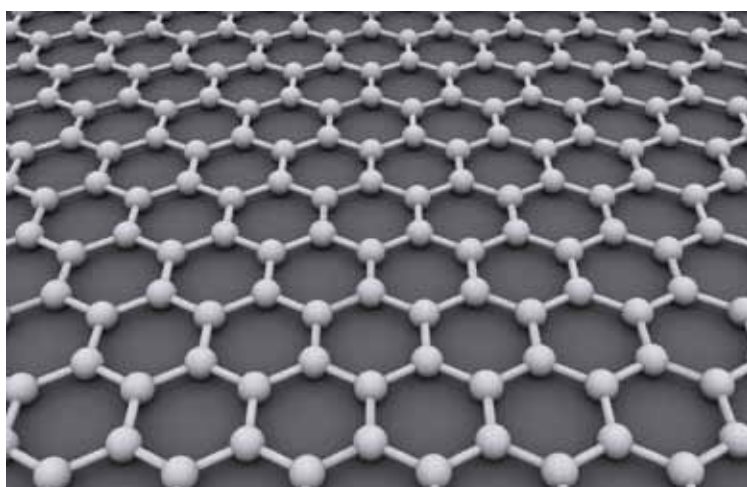


# UPDATE 2011

**nano** LIFE  
ENERGY  
MATERIALS



# PROGGRAMME

**NANO CONNECT SCANDINAVIA** | [www.nano-connect.org](http://www.nano-connect.org)

Chalmers University of Technology | DTU | Halmstad University | Imego  
Lund University | University of Copenhagen | University of Gothenburg



EUROPEAN  
UNION  
European Regional  
Development Fund



**Interreg IV A**  
ÖRESUND – KATTEGAT – SKAGERRAK



Business Support on Your Doorstep

# The power of a cup of coffee

The Nano Connect Scandinavia collaboration is centred on the Øresund-Kattegat-Skagerrak (ØKS) region. Like many other border regions, south-western Scandinavia has a history full of dramatic events. Periods of prosperity and economic growth has been disrupted by conflict and war between Sweden, Denmark and Norway in different coalitions, only to once again give way to trade and commerce that has benefited all.

The last few decades have seen a development peaceful in nature, but by no means less dramatic. Starting with a few pioneers, nanotechnology has become an area of strength in the region, with world-class researchers, university programmes dedicated to nanoscience and nanotechnology, nanofabrication facilities, and companies that have embraced the new possibilities.

Yet, transforming scientific breakthroughs into commercially viable products takes time, and making south-western Scandinavia an international hub for nanotechnology-based industry will require further investments in human capital as well as infrastructure. The Øresund bridge was an important first step, but more is to come.

## A GLIMPSE OF THE FUTURE

The next generation synchrotron radiation facility MAX IV will be placed in Lund, Sweden. It becomes operational in 2015. The European Spallation Source (ESS) will have an impact on the entire region and in particular on nanoscience and nanotechnology. Located in Lund with an accompanying data management centre in Copenhagen, ESS will be the most powerful neutron source in the world in 2019.

Planned for an inauguration in 2020, the Fehmarn belt fixed connection between northern Germany and the Danish island of Lolland will bring the entire region closer to the rest of Europe. Following a slow start, the traffic across the Øresund Bridge exploded in numbers during the first decade of the new millennia. Danish and Swedish politicians are now investigating the possibilities for another link, this time likely to be located further north, at Helsingborg-Helsingør. A high-speed rail connection (Coinco North) between Oslo, Gothenburg and Copenhagen is also being discussed. It could potentially cut the travel time dramatically to 2 hours and 20 minutes.

Major projects like these have the potential to be catalysts for science-based, sustainable growth, in the region as well as in Scandinavia and Northern Europe as a whole, if we take the initiative. Sometimes, all it takes for a new idea to be transformed into something tangible is for the right two people to meet over a cup of coffee. And bringing creative minds together is what this conference is all about.

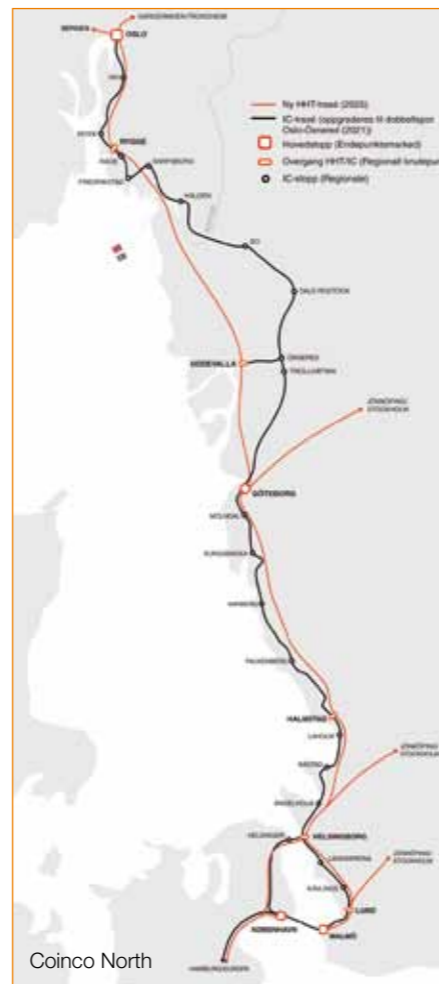
## MATCHMAKING AT UPDATE 2011

Update 2011 is more than a traditional conference. The second day includes three matchmaking sessions. This gives you an opportunity to book face-to-face meetings with potential future project partners or just people whose work interest you in any way. If you have not done so already - there is still a chance to book meetings. Just ask the Enterprise Europe Network representatives for help, and they will assist you.



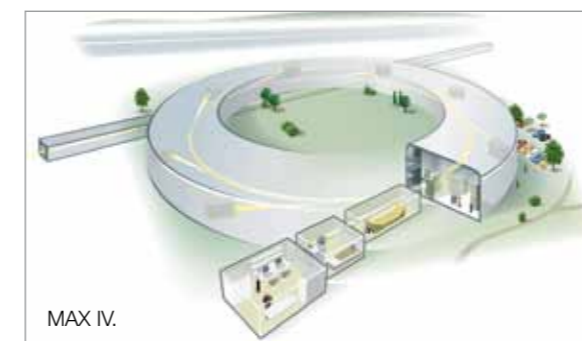
Welcome to Update 2011!

Johan Borgström  
Project Manager Nano Connect Scandinavia



ESS as seen from the north.

Illustration: ESS AB.



MAX IV.

Illustration: Peter Lönegård



## NANO CONNECT SCANDINAVIA

- Chalmers University of Technology
- Halmstad University
- Imego
- Lund University
- Technical University of Denmark
- University of Copenhagen
- University of Gothenburg
- Halland Regional Development Council
- Region Skåne
- Region Västra Götaland
- Region Zealand
- The Capital Region of Denmark

08.00-10.15 Registration and coffee [5th floor conference area]

10.15-12.00 **NANO TODAY AND TOMORROW** [Room: Öresund]  
Moderator: Ann Fernholm, Katalys Media

Anja Boisen, Professor, DTU  
Bengt Kasemo, Professor, Chalmers University of Technology  
Lars Montelius, Professor, Lund University

12.00-13.15 Lunch [Elite Hotel Marina Plaza restaurant]

13.15-15.00 **LIFE** [Room: Kärnan]  
Moderator: Ann Fernholm, Katalys Media

**Diagnostics using nanotechnology**  
Christer Wingren, Associate Professor, Lund University

**Tumor targeted liposomes in bio-imaging and cancer diagnostics using positron emission tomography**  
Thomas L. Andresen, Senior Researcher, DTU Nanotech

**Opportunities in nano- and microfluidics**  
Jonas Tegenfeldt, Associate Professor, University of Gothenburg

**Title to be decided**  
Tom Olesen, CTO, Unisensor A/S

15.00-15.30 Coffee [5th floor conference area]

15.30-17.00 **LIFE** [Room: Kärnan]  
Moderator: Ann Fernholm, Katalys Media

**Stimuli-responsive lipid nanostructures in drug delivery**  
Fredrik Tiberg, CEO, Camurus

**Vault nanocapsules: A new platform for therapeutic delivery**  
Leonard Rome, Professor, CNSI

**Three-dimensional nanobiotechnology-based self powered biodevices**  
Sergey Schliev, Senior Researcher, Malmö University

**Watching proteins at work - structural insights into protein orientation and function in membranes obtained from neutron reflectometry**  
Hanna Wacklin, Instrument scientist, European Spallation Source ESS AB

18.00 **DINNER** [Elite Hotel Marina Plaza restaurant]

## CHALMERS



## PROGRAMME TUESDAY

08.00-10.00 **MATCHMAKING SESSION** [Room: Kronborg]

09.45-10.15 Registration and coffee [5th floor conference area]

10.15-12.00 **GOING NANO** [Room: Öresund]  
Moderator: Dan Larsson, Growthion AB

**Nanotechnology – past, present and future perspectives**  
James Murday, Associate director for physical sciences, University of Southern California D.C. Office of Research Advancement

**NanoRisks – how to get beyond talking about unknowns?**  
Anders Baun, Professor, DTU Environment

**Nanomaterials – the legal framework in EU today and tomorrow**  
Jenny Holmqvist, Risk Assessment Manager, Cefic

**Standardisation aspects of the nano revolution**  
Stefan Åkesson, Manager, Food Safety & Equipment Safety, Tetra Pak Processing Systems

**The NanoPiast project**  
Per Høivsgaard, Senior director Mechatronics & Prototyping, LEGO  
Rafaël Taboryski, Head of polymer micro and nano engineering section, DTU

12.00-13.15 Lunch [Elite Hotel Marina Plaza restaurant]

13.00-15.00 **MATCHMAKING SESSION** [Room: Kronborg]

13.15-15.00

**LIFE / RESEARCH TOOLS** [Room: Kärnan]  
Moderator: Maryam Olsson, Lund University Innovation System

**Nanoparticles – a research tool for life science**  
Sarah Fredriksson, CEO, Genovis

**Screening for molecular properties by encoded combinatorial chemistry**  
Morten Meldal, Professor, University of Copenhagen

**Open access micro/nanofabrication facilities – bridging academic research and small scale production**  
Jörg Hübner, Managing Director, DTU Danchip

**Title to be decided**  
BioIn Scientific

15.00-15.30 Coffee [5th floor conference area]

15.00-17.00 **MATCHMAKING SESSION** [Room: Kronborg]



**MATERIALS** [Room: Öresund]  
Moderator: David Storek, University of Gothenburg/NCS

**Nano-scale structure of polymer amphiphilic systems: tailored new phases and applications as smart materials**  
Kell Mortensen, Professor, University of Copenhagen

**Nanobased materials in AB Volvo: Present technology and future challenges**  
Jan-Eric Sundgren, Senior Vice President, Professor, AB Volvo

**Nanotechnology & the car industry: An inside perspective from Fiat**  
Gianfranco Innocenti, Department Manager, Centro Ricerche Fiat S.C.p.A.

**Current and future applications of carbon nanotubes**  
Alexander Clerbaux, Funded Project Coordinator, Nanocyl

**MATERIALS** [Room: Öresund]  
Moderator: Alan Fris, DTU

**Towards piezoelectric nanocarbon/PVDF fibres**  
Rodney Rychwalski, Professor, Chalmers University of Technology

**Highlights of innovative application orientated nano-designed coating meeting end-users demands**  
Lars Pleth Nielsen, Centre Manager, Tribology center, DTI

**Nanostructured materials for housing applications**  
Elin Sondergård, Director, Laboratoire Surface du Verre et Interfaces, CNRS/Saint-Gobain

**Benefits of carbon nanotubes reinforced themosets for wind-power and composite applications**  
Joachim Karthäuser, Technical Director, Re-turn composites

**ENERGY** [Room: Helsingör]  
Moderator: Morten Christensen, University of Copenhagen/NCS

**Nanocrystalline junctions and molecular photovoltaic cells**  
Michael Grätzel, Professor, EPFL

**Organic photovoltaics – the next generation of solar cells**  
Peter Sommer-Larsen, Head of the Solar Energy Programme, Risø DTU

**Moving energy forward**  
Charles Nielsen, R&D Director, DONG Energy

**STM studies of atomic-scale processes in photocatalysis**  
Flemming Besenbacher, Professor, Aarhus University

**ENERGY / ELECTRONICS** [Room: Helsingör]  
Moderator: Cristina Andersson, Chalmers/NCS

**Nanowires – from academic nanoscience to industrial LEDs**  
Lars Samuelson, Professor, Lund University, Chief Scientific Officer at Glo AB

**Nanoelectronics & the missing link**  
R. Stanley Williams, Director of Information and quantum systems lab, Hewlett-Packard

**Studying single particles with ultra sensitive detectors; electrons, photons and phonons.**  
Per Delsing, Professor, Chalmers University of Technology

**Quantum Cascade Lasers: Mid-infrared nanotechnology for environmental, power plant and climate change monitoring**  
Federico Capasso, Professor, Harvard University

**LIFE / MATERIALS** [Room: Kärnan]  
Moderator: Line Luncfeld, Lund University/NCS

**Biomaterial surfaces: Is nano important?**  
Pentti Tengvall, Professor, University of Gothenburg

**Nanostructured noble metal surface properties prevent hospital acquired infections – future biomaterials**  
Brita Sjöström, R&D Manager, Bactiguard

**Expansile nanoparticles for cancer treatment**  
Mark W. Grinstaff, Professor, Boston University

**Magnetic nanoparticles for implant-assisted magnetic drug targeting**  
Maria Kempe, Associate Professor, Lund University

**ENERGY / MATERIALS** [Room: Helsingör]  
Moderator: Morten Christensen, University of Copenhagen/NCS

**Future impact of MAX-IV and ESS on energy research**  
Robert Feidenhansl, Professor, University of Copenhagen

**Catalysts for sustainable fuels production**  
Søren Dahl, Director CASE, DTU

**Catalytic conversion of tall oil to ultra clean renewable diesel**  
Rasmus G. Egeberg, Project Manager Refinery Technologies, Haldor Topsoe

**Insploron AB – commercializing nanotechnology-based research instruments for catalysis and nanomaterials science**  
Vincent Schaller, Insploron

**ENERGY / MATERIALS** [Room: Öresund]  
Moderator: Hilmar Vidarsson, Höganäs AB

**Electrodes and fuel cells – cases and visions**  
Peter Holttappels, Programme Leader, Risø National Laboratory for Sustainable Energy, Risø DTU

**Storage – a structural energy storage system**  
Per-Ivar Sellegren, Development engineer, Volvo Cars Materials Centre

**The development of PEM and DMFC fuel cells and their application in private and professional setups**  
Steen Yde-Andersen, R&D Manager, IRD Fuel Cells A/S

**Manufacturing of porous nanocomposite SOFC anodes by aqueous tape casting**  
Johanna Stiernstedt, Researcher, Swerea IVF

## About us and what we do

**Working to bring academia and industry closer together, we help scientists and companies find partners for projects and collaboration.**

The Nano Connect Scandinavia project team represents seven universities and institutes in south-western Scandinavia, with strong profiles in nanotechnology: Chalmers University of Technology, DTU, Halmstad University, Imego, Lund University, University of Copenhagen, and University of Gothenburg.

With a network spanning the entire region, we can help you:

### FIND A RESEARCH GROUP, CLEANROOM, INSTRUMENT OR PROFESSIONAL SERVICE

We know who is who in the nano community. Give us a call and describe what you are looking for. Chances are we will be able to save you a lot of time.

### SET UP A FACE-TO-FACE MEETING TO EXPLORE OPPORTUNITIES FOR COOPERATION

You may have a specific problem that needs to be solved, or just a general curiosity about what nanotechnology could bring to the table. Either way, we can suggest interesting people, companies and organisations for you to meet for a private discussion. We will act as a facilitator.

### FIND PROJECT PARTNERS FOR OPEN CALLS

We arrange workshops around specific calls and can help you build consortia with academia- or company partners from Denmark, Sweden and Norway.

### GET UPDATED ON THE LATEST IN NANOSCIENCE AND NANOTECHNOLOGY

From conferences like Update and PhD NANO to small, specialised seminars on topics such as nano-composites, sensors and single molecule nanoscience, we help scientists and companies share and expand their knowledge.

### STAY CURRENT WITH THE NANO CALENDAR

Visit [www.nano-connect.org](http://www.nano-connect.org) for an overview of regional and international events and conferences or sign up for our newsletter.

## Give us a call

Contact our coordinators in Denmark or Sweden to find out how we can help you. Nano Connect Scandinavia is an EU-funded Interreg IVA project and our services are free of charge.

**Cristina Andersson**  
Project coordinator  
Chalmers, University of Gothenburg,  
Imego  
+46 761 25 70 81  
[cristina.andersson@chalmers.se](mailto:cristina.andersson@chalmers.se)

**Johan Borgström**  
Project manager  
Lund University  
+46 735 19 09 81  
[johan.borgstrom@oresund.org](mailto:johan.borgstrom@oresund.org)

**Morten Christensen**  
Project coordinator  
University of Copenhagen  
+45 21 84 96 63  
[mc@nano.ku.dk](mailto:mc@nano.ku.dk)

**Mette Lund Meisner**  
Project coordinator  
Technical University of Denmark  
+45 45 25 67 37  
[mlme@nanotech.dtu.dk](mailto:mlme@nanotech.dtu.dk)

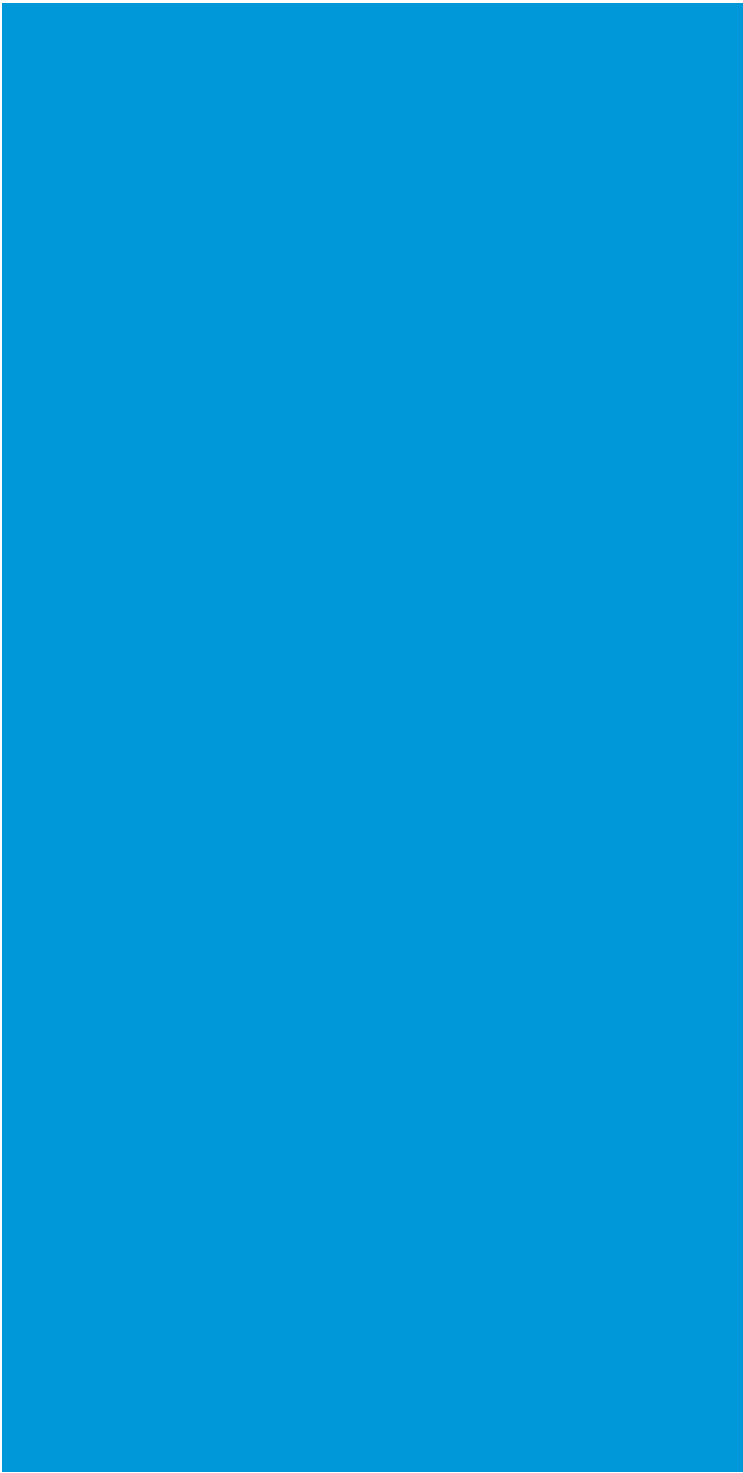
**Line Lundfald**  
Project coordinator  
Lund University, Halmstad University  
+46 70 392 21 21  
[line.lundfald@ff.lth.se](mailto:line.lundfald@ff.lth.se)

**Lina Löfmark**  
Deputy project manager  
Lund University  
+46 735 04 35 89  
[lina.lofmark@oresund.org](mailto:lina.lofmark@oresund.org)

**David Storek**  
Project coordinator  
University of Gothenburg, Imego, Chalmers  
+46 709 43 87 87  
[david.storek@physics.gu.se](mailto:david.storek@physics.gu.se)



Mette, Line, David, Lina, Johan, Cristina and Morten.



**NANO CONNECT SCANDINAVIA** | [www.nano-connect.org](http://www.nano-connect.org)  
Chalmers University of Technology | DTU | Halmstad University | Imego  
Lund University | University of Copenhagen | University of Gothenburg

