

Press Seminar on Graphene & Sustainability

- by Graphene Centre at Chalmers

Time: 13.00-14.00, 10 October 2013

Place: Kollektorn, Department of MC2, Chalmers University of Technology

Introduction by Christian Borg, Head of Media Relations, Chalmers

Welcome to Chalmers. Short on graphene, future applications and Graphene Flagship. Today's activities. Introduction to the seminar theme: Graphene & Sustainability.

Alan Atkisson, author and independent expert, member of the President's of the European Commission Science and Technology Advisory Council (PSTAC)
Sustainability aspects of graphene. Graphite as an abundant natural resource, graphene production and climate issues, applications in the energy and transportation sector, graphene as replacement for scarce or problematic resources, water filtration, life cycle analyses and the precautionary principle.

Vittorio Pellegrini, Director of the Graphene center of the Italian Institute of Technology, Deputy Coordinator of work package Energy (WP9) of The Graphene Flagship

Graphene for energy applications – photovoltaics, hydrogen storage and energy storage in graphene-based batteries or supercapacitors. Main principles, and performance effects of using graphene instead of alternative solutions. Effects on natural resources and estimates on time-to-market.

Bengt Fadeel, Professor of Medical Inflammation Research and Vice Chairman at the Institute of Environmental Medicine, Karolinska Institutet, researcher of work package Health & Environment (WP2) of The Graphene Flagship

The state of knowledge when it comes to graphene in the body – opportunities and risks. What will the flagship address in this field? Nature of and time scale for future medical applications.

Eva Hellsten, Swedish Commission for Nanosafety, former advisor to the European Commission/DG Environment

How the success and long-term sustainability of new technology gain from a life cycle perspective on potential risks at an early stage. Swedish and EU approaches to nano safety from an health and environmental perspective. Examples of actions.

Mikael Fogelström, Professor, Dep of Microtechnology and Nanoscience, Scientific Leader of Graphene Centre at Chalmers

Graphene research at Chalmers and in Sweden. The role of the Swedish graphene initiative and Graphene Centre at Chalmers. Introduction to Hands on exhibition.

Open panel on media questions

Moderator: **Christian Borg**, Head of Media Relations, Chalmers



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Panel bio:



Alan Atkisson, author and frequent keynote speaker, has been working at the forefront of sustainability management, policy and learning since 1988. He has developed professional tools and methods now used internationally by businesses, governments, and educational institutions.

In 2013, Alan was named a member of the President's Science and Technology Advisory Council, at the invitation of President José Manuel Barroso of the European Commission, the only one among 15 member not formally trained as a scientist or engineer. His original academic training was in philosophy, at Tulane and Oxford Universities.

Photo Credit: ??



Vittorio Pellegrini is the Director of the graphene center of the Italian Institute of Technology and Deputy Coordinator of the work package Energy of The Graphene Flagship project. He is best recognized for his contributions to the study of the many-body properties of semiconductor nanostructures and for his works on graphene and functionalized graphene nanostructures with particular emphasis on graphene production, graphene optoelectronics and graphene-hydrogen systems.

Photo Credit: Agnese Abrusci/IIT



Bengt Fadeel is Professor of Medical Inflammation Research and Vice Chairman at the Institute of Environmental Medicine, Karolinska Institutet, and Adjunct Professor of Environmental and Occupational Health, University of Pittsburgh. He is a Fellow of the US Academy of

Toxicological Sciences and is engaged in several ongoing EU projects on nanosafety. He was awarded the Environmental Medicine Prize in 2011 by the Cancer and Allergy Foundation for his research on the opportunities and risks of the emerging nanotechnologies. In The Graphene Flagship he is Principal Investigator within the work package Health & Environment.

Photo Credit: Ulf Sirborn/KI



Eva Hellsten has a broad experience from policy development on chemicals and nanotech safety, both at EU level and in Sweden. Since 2000, Eva has worked for DG Environment of the European Commission. She was e.g. in charge of the development of REACH legislative proposal.

In 2005, she was among the initiators to develop a safety policy for nanomaterials in the EU and in OECD. After returning to Sweden in 2012, Eva has been involved in a Swedish Commission to propose a strategy for safe handling of nanomaterials. The proposal will be presented to the Government on 8 October 2013. Eva Hellsten has an academic background in physics, cell biology and medicine.

Photo credit: Eva Dalin/SU



Mikael Fogelström is Professor at Department of Microtechnology and Nanoscience, Chalmers University of Technology, Scientific Leader of Graphene Centre at Chalmers and Coordinator for Swedish graphene initiative. He received his PhD at Åbo Akademi and did postdoctoral

research at Northwestern University and at Karlsruhe University of Technology, before joining Chalmers in August 2000. His main research focus have been mesoscopic and unconventional superconductivity. Recently, research on graphene and topological materials have been added to his broad portfolio.

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