

The logo features the text 'csem' in white lowercase letters on a red background. The background of the entire slide is a blue and black circuit board pattern.

:: csem

Business Day 2017

Lucerne, November 7

micro technology

mega impact in the digital economy

## Program of the day

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9:00 Registration

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9:30 **Welcome address**

Mario El-Khoury, CEO, CSEM SA

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9:45 **2D materials: from research to applications**

**Kostya Novoselov**, winner of the 2010 Nobel Prize in Physics, University of Manchester School of Physics & Astronomy

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10:30 Networking coffee break

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11:00 Parallel CSEM technology sessions

**IoT & Wearables** :: The seamless integration of ultraminiaturized autonomous systems into the human body and its environment enables fundamental changes in the way that we evolve in the economy and in society. We will discuss the ultralow power consumption of microelectronics and sensors as well as how the integration of complex microsystems is crucial to the realization of a large spectrum of IoT and wearable devices.

*Chaired by* Harry Heinzlmann

:: "Microelectronics", David Ruffieux, CSEM SA, and Philippe Bourban, Director of Product Development ON Semiconductor

:: "Smart sensors & deep learning", Stéphane Emery, CSEM SA, and Christian Brändli, CEO, Insightness

:: "Wearables & e-health", Mattia Bertschi, CSEM SA, and Patrick Schoettker, Biospectal

**Advanced Manufacturing & Industry 4.0** :: Microtechnologies developed at CSEM have enabled quantum leaps in micromanufacturing and have made revolutionary products possible, contributing in terms of processes, quality control, and reliability. By combining "classical" silicon, microfabricated microsystems, we expect to bring about a change in paradigm in terms of manufacturing techniques and processes. Moreover, the integration of ultraminiaturized, autonomous, and versatile devices into versatile software platforms will help realize the dream of Industry 4.0, contributing to predictive maintenance, logistics, process monitoring, and optimization, as well as improving automation.

*Chaired by* Helmut Knapp

:: "Machine Learning for Robotics & Automation", Philipp Schmid, CSEM SA, and Venkat Nadipuram, Global Product Manager drive systems, ABB Mining

:: "Manufacturing processes, Michel Despont, CSEM SA, and Anthony Serpny, Richemont International SA

:: "Quality control, Olha Sereda, CSEM, and Felix Reinert, ProtoShape GmbH

**PV & Energy Management** :: Technologies developed by CSEM and its partners play a vital role in steering the world toward more efficient PV systems and potentially dramatic cost reductions. We will address these technologies' integration into the economy, covering aspects from building integration to energy scavenging, as well as energy storage and management, highlighting the benefits for a large spectrum of industries.

*Chaired by* Dieter Ulrich

:: "High-efficiency crystalline silicon cell technology, Matthieu Despeisse, CSEM SA, and Omid Shojaei, Indeotec

:: "BiPV, Laure-Emmanuelle Perret-Aebi, CSEM SA, and Boris Luchessa, ISSOL SA

:: "Energy systems, Andreas Hutter, CSEM SA, and Sohail Malik, Neurobat AG

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12:30 **Standing networking lunch** with CSEM experts, **and an exhibition of our latest technology demonstrators**

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14:30 **Challenges for digital excellence in Europe**  
Thomas Skordas, Director, European Commission, Digital Excellence and Research Infrastructures

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15:00 **World Café round tables on the evolution of the following exciting domains**

**Industry 4.0 for SMEs** :: The evolution of the challenges inherent in the implementation of ubiquitous sensors and communications systems in new manufacturing processes: expectations and fears.

*Chaired by* Christoph A.P. Rennhard, LCA Automation AG  
Philipp Schmid, CSEM SA

**IoT—deployment in a real-world situation** :: The integration of smart, miniaturized devices into the digital society of tomorrow: opportunities and issues.

*Chaired by* Dawn Linke, Swisscom  
Alain-Serge Porret, CSEM SA

**Digitalized energy** :: Just an enabler for decarbonization and decentralization, or a transformative force on its own?

*Chaired by* Martin Kauert, BKW  
Christophe Ballif, CSEM SA

**Digital health** :: How microtechnologies can further strengthen prevention, patient empowerment, and out-of-hospital care?

*Chaired by* Mikael von Euw, Biovotion AG  
Jens Krauss, CSEM SA

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16:30 **Open questions and wrap-up of round tables**

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17:00 **Networking aperitif**

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