

Press release

## CSEM kicks off €14.2M flexible printed plastic solar panel project

### Making solar energy a bigger part of our everyday life

**Neuchatel/Muttenz, 21 February 2012 – Printed-plastic solar technology is transforming how and where we harvest power. It represents the newest generation of technologies in solar power generation which will result in flexible, low weight, and low cost panels. Europe has recently launched a four-year, €14.2M effort to develop advanced flexible plastic solar panels designed to be integrated into new consumer mobile applications and buildings. Led by the *Centre Suisse d'Electronique et de Microtechnique (CSEM)*, the project consortium includes industrial partners such as Agfa, BASF, and DuPont Teijin Films as well as the photovoltaic pioneer Konarka and key European research institutes and universities.**

Imagine a world where electric power is safe, truly green, and produced locally. The launch of SUNFLOWER, a €14.2M project created to generate solar energy with highly efficient and recyclable printed plastic solar cells, brings us a step closer to the dream of environmentally friendly and efficient power for everyone. Printed plastic solar cells are the most recent generation of solar panels and are currently limited by their relatively low efficiency and lifetime. However, they can be mass produced using large scale printing machines on rolls of flexible materials, unlike the rigid, silicon-based panels in use today. With the CSEM-led project SUNFLOWER, the 17 consortium partners are aiming to simultaneously increase the cells' efficiency and lifetime while decreasing production costs through environmentally friendly technologies surpassing current solar science.

#### Give people more energy independence and flexible power wherever they go

Flexibility, low weight, and low cost are the key advantages of printed plastic solar panels. They will enable the development of consumer applications like roll-up solar panels or panels integrated three-dimensionally into architectural structures and eventually make possible more economical and robust solar-panel fields for energy production farms. This is a key opportunity for the EU to further expand its innovation base in alternative energies. *"We have the chance to develop a technology that is ideally suited to manufacturing in the EU due to its high level of automation, need for highly trained personnel, low energy consumption, and close proximity to suppliers and markets"*, states project coordinator Dr. Giovanni Nisato from CSEM.

The project consortium combines industrial, institutional, and academic support to make a significant international impact while researching market-relevant implementations. The industrial project partners are well positioned along the supply chain of future products based on printed plastic solar cells, which is an important prerequisite for the creation of a substantial socio-economic footprint for this project.

#### Additional information

##### CSEM

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## About SUNFLOWER

Christened SUNFLOWER, the consortium has been assembled under the auspices of a 48 month project to extend the lifetime and cost-performance of organic photovoltaic (OPV) technology through improved process control and understanding of materials. The project is funded by the European Commission's 7th framework and has a total budget of €14.2M (EU contribution: €10.1M).

The project is led by Dr. Giovanni Nisato of CSEM (Switzerland). The SUNFLOWER consortium consists of 17 partners across Europe: CSEM (Switzerland), BASF SCHWEIZ AG (Switzerland), DUPONT TEIJIN FILMS UK LTD (United Kingdom), AMCOR FLEXIBLES KREUZLINGEN AG (Switzerland), AGFA-GEVAERT N.V. (Belgium), FLUXIM AG (Switzerland), KONARKA TECHNOLOGIES GmbH (Germany), the UNIVERSITY OF GLASGOW (United Kingdom), SAES GETTERS S.P.A. (Italy), CONSIGLIO NAZIONALE DELLE RICERCHE-ISMN-Bologna (Italy), the SCHOOL OF LIFE SCIENCES FHNW (Switzerland), CHALMERS TEKNISKA HOEGSKOLA AB (Sweden), FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V. (Germany), LINKOPINGS UNIVERSITET (Sweden), UNIVERSITAT JAUME I DE CASTELLON (Spain), GENES'INK (France), CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (France), and UNIVERSITE DE LA MEDITERRANEE D'AIX-MARSEILLE II (France). Further information on SUNFLOWER is available at [www.sunflower-fp7.eu](http://www.sunflower-fp7.eu).

## About CSEM

### **CSEM – an innovation center**

CSEM SA, founded in 1984, is a private research and technology organization (RTO) specializing in microtechnology, nanotechnology, microelectronics, systems engineering and communications technologies. Approximately 400 highly qualified and specialized employees from various scientific and technical disciplines work for CSEM in Neuchâtel, Zurich, Muttenz, Alpnach, and Landquart. They represent more than 30 nationalities and constitute the basis of the company's creativity, dynamism, and innovative potential.

Further information is available at [www.csem.ch](http://www.csem.ch)

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