

A unique technological solution for integrating high-definition images in solar panels

Smile – your photos can generate energy!

Neuchâtel (CH), 21 June 2017 – Thanks to the support of the Banque Cantonale Neuchâteloise (BCN), CSEM has developed the KALEO technology, which enables the production of illustrated solar panels. Opening new horizons in solar energy, this promising solution can be discovered in Neuchâtel. For the first time, six “photovoltaic” high-definition photographs can be viewed in the gardens of the BCN. These works of art will be producing electricity during the whole duration of the exhibition.

A mischievous look, a bright smile, or a dreamy look: a range of expressions suggesting energy, captured by the lens of the photographer Guillaume Perret, are on view in the gardens of the Neuchâtel headquarters of the BCN this Saturday 24th June from 09:00 to 11:00 for the Open House morning. These images aren't just esthetically pleasing – thanks to the [KALEO](#) technology developed by CSEM, they are printed on solar panels that produce electric current. Three trompe-l'oeil panels on the façade of the bank complete the installation. This exhibition represents a genuine “first”, and will be accessible throughout the summer on request.

When photovoltaics rhymes with esthetics

Over the last few years, CSEM has excelled as a pioneer in the development of esthetic photovoltaics solutions, intended to broaden the range of durable architectural materials. Thanks to the engagement of public partners such as the [Swiss National Science Foundation](#) or the canton of Neuchâtel, it has developed important innovations such as white or colored solar panels. KALEO is just one example of this innovative spirit. With a strong wish to find new sources of energy for future generations, the BCN has provided significant financial support for this project, thus making an important breakthrough possible. CSEM's scientists have “hidden” the solar panel using a high-definition image, while allowing sufficient light through to produce electricity. A surface of 30 to 40 square meters could in this way supply a household of four people with electricity.

From the laboratory to our cities

By offering a new perception of solar energy, this technology will in time contribute to an increase in architectural solutions that integrate photovoltaic systems (BIPV). It also enables other uses such as in advertising. Such applications all have the same goal – to promote the use of renewable energy. To respond to the demands of Switzerland's energy strategy, the share of solar in the total production of energy needs to increase from 2,5 % to 20% between now and 2050. By thus providing architects with this new option, CSEM and BCN are encouraging this momentum and helping to make this energy an integral part of our daily lives.



The image is printed on a film that has been specially chosen to be durably integrated in the solar module.

KALEO Exhibition

Guillaume Perret: Originating from the Neuchâtel region, the Swiss photographer Guillaume Perret works for the media, advertising and artistic projects. Fascinated by the naturally elusive character of human beings, he delights in focusing his lens on faces. In this way, he has produced five portraits for printing on ten solar panels for the KALEO exhibition, with the goal of capturing expressions that radiate forms of energy.

Result of the KALEO competition: A sixth photograph now has now been added to the exhibition following the competition launched in January by the partners of the KALEO project. It was taken by Etienne Wildi, 19, from Cortaillod, who is a student at the School of Applied Arts at La Chaux-de-Fonds.

Practical information: Open to the public on Saturday 24 June from 09:00 to 11:00 in the gardens of the Neuchâtel headquarters of the BCN with coffee and croissants in the presence of the artist and the people in charge of the project.

On-request, additional openings will also be possible.

For more information:

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About CSEM

CSEM—technologies that make the difference

CSEM, founded in 1984, is a Swiss research and development center (public-private partnership) specializing in microtechnology, nanotechnology, microelectronics, system engineering, photovoltaics and communications technologies. Around 450 highly qualified specialists from various scientific and technical disciplines work for CSEM in Neuchâtel, Zurich, Muttenz, Alpnach, and Landquart.

Further information is available at www.csem.ch

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