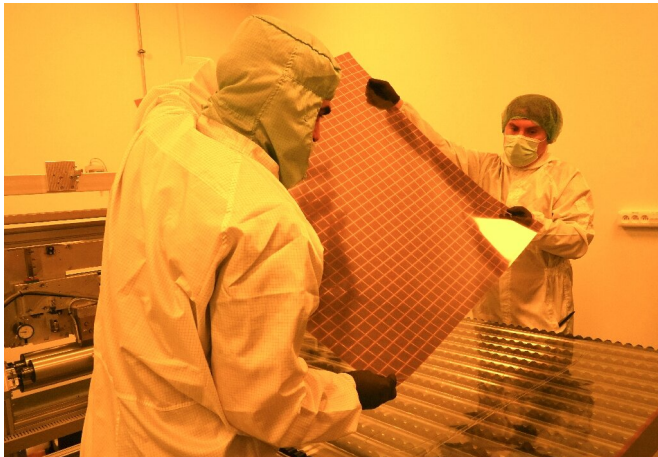


Polish firm opens cutting-edge solar energy plant

21 May 2021, by Stanislaw Waszak



Named after the Baltic goddess of the sun, Saule Technologies makes sheets of solar panels using a novel inkjet printing procedure invented by company founder Olga Malinkiewicz.

A Polish company on Friday launched the world's first industrial production line of solar panels based on groundbreaking perovskite technology, which could revolutionise access to solar power.

Named after the Baltic goddess of the sun, Saule Technologies makes sheets of solar panels using a novel inkjet printing procedure invented by company founder Olga Malinkiewicz.

"We're scaling up, going from laboratory to production line," said Malinkiewicz, whose firm is based in the southern city of Wroclaw.

The cutting-edge technology has been in the works for close to a decade but the plant opening comes at a fortuitous time, as the EU member is experiencing a solar boom.

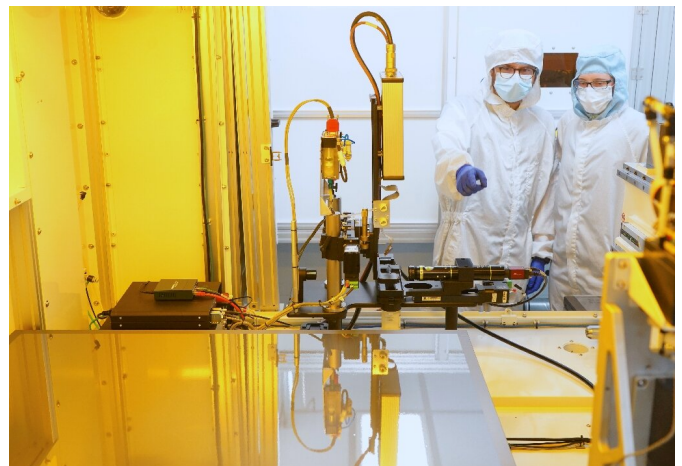
Poland has long relied on coal for most of its energy needs but under an EU plan to cut

emissions, its mines are set to shut by 2049.

Photovoltaic panels coated with perovskite film are light, flexible and can easily be fixed to almost any surface to produce electricity even inside buildings.

Manufacturing costs are down thanks to the inkjet printing procedure for perovskites, which makes it possible to produce the panels under lower temperatures.

Malinkiewicz developed the processing method in 2013 while still a PhD student at the University of Valencia in Spain.



Saule Technologies has received funding from Poland's green energy leader Columbus Energy and multimillionaire Japanese investor Hideo Sawada.

Her discovery earned her an article in the journal Nature as well as an award from MIT and top spot in a competition organised by the European Commission.

Now, "we're opening the world's first factory of perovskite solar cells," she told AFP.

She said "demand already exceeds production capacity", which is estimated initially at an annual 40,000 square metres (430,550 square feet).

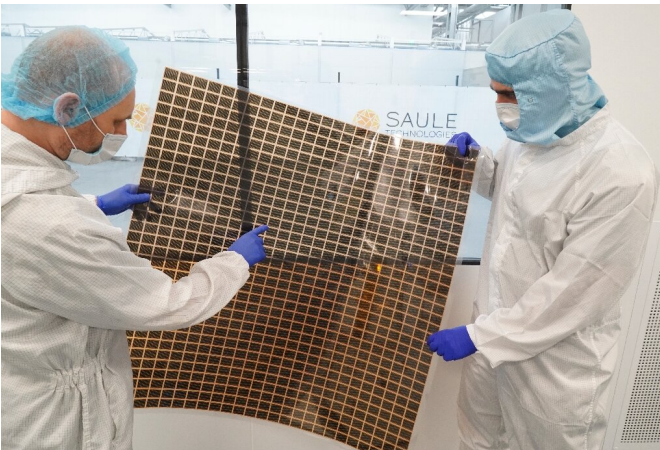
In the Himalayas and outer space

The first commercial orders have come in from the Internet of Things and construction sectors.

The technology involved consists of printing layers of photovoltaic cells onto transparent plastic sheets.

The panels can be made very small or large, and can also be cut down in size or glued together to cover greater surface areas.

"We use synthetic perovskites that can achieve considerable efficiency and power and which we don't have to extract from nature," Malinkiewicz said at the factory's inauguration.



Photovoltaic panels coated with perovskite film are light, flexible and can easily be fixed to almost any surface to produce electricity even inside buildings.

She told AFP that the perovskite solar modules were tested in outer space simulators, "to excellent results".

A pliant perovskite solar panel the size of an A3 sheet of paper "proved successful as a phone charger and other kinds of electronic equipment during a Himalayan expedition, under extreme

weather conditions," she said.

The company, whose team numbers 70 people from 15 countries, has received funding from Poland's green energy leader Columbus Energy and multimillionaire Japanese investor Hideo Sawada.



Olga Malinkiewicz, founder of Polish firm Saule Technologies, says a pliant perovskite solar panel the size of an A3 sheet of paper "proved successful as a phone charger" during a Himalayan expedition.

The firm is now preparing to launch on the Warsaw Stock Exchange and is also mulling new factories in Europe or perhaps Japan.

"Of all the photovoltaic systems in Europe, only four percent are manufactured on the continent," said Malinkiewicz.

"We're on the same page as the European Union when it comes to the importance of building them in our region," she added.

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