



European
Commission

Green Plasma

Thin films for green energy

FUJIFILM



Fujifilm is pioneering a greener process technology to manufacture products like flexible solar cells in Tilburg, NL.

Photo: Green Plasma

OUR STORY

As a world leader in thin film coatings, Fujifilm is pioneering a more efficient and environmentally-friendly way of manufacturing flexible solar cells. Our new plasma-based technique saves energy and natural resources by depositing microscopically thin layers of material with a cloud of gas that we can now energise under standard pressure conditions.



Innovation



Efficiency



Environment

Larger with Life

In 2013-2016, the EU LIFE Programme invested €1.9 million in the €4.5 million Green Plasma project to help tailor a new manufacturing technique to the needs of its first customers. Fujifilm's so-called Atmospheric Pressure Glow plasma for Chemical Vapour Deposition (APG-CVD) has since broadened the options for manufacturing rolls of flexible solar cells. The new plasma-based technique consumes less energy and raw materials to produce the same quality of solar cells.

EU added value

- Plasma-deposition 20% cheaper
- Greener solar cell manufacturing
- Shift to non-toxic raw materials

Prospects

- Estimated €500 million PV market
- Revitalise EU renewables industry
- Tech protected by 20+ patents

Achievements

- Reduced **raw materials** wasted by plasma-deposition techniques from 80% to 10%
- Brought down **energy consumption** of plasmadeposition techniques by 95%
- Demonstrated the potential for production at web speeds of **50 meters a minute**
- Built a first on-site APG-CVD system for **customer demonstrations** in 2015

Policy support

- Accelerate the introduction of **renewable energy** in line with the energy union strategy
- Efficient use of **natural resources** as set out in the 7th environment action programme
- Strengthen industry and **competitiveness** in agreement with the EU industrial policy strategy

Contact

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Environment
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