



# Agrivoltaics for open-field agriculture

## Main results / outcomes

Agrivoltaics (APV), the integration of agriculture with solar PVs, emerges as a potential remedy, allowing dual land utilization by combining solar energy generation with crop cultivation. This promises a more sustainable approach to land use, ensuring food production is not compromised for energy needs. Based on research from the HyPERFarm H2020 project, the total EU's potential capacity for APV systems is estimated at 51 TW, potentially producing around 71,500 TWh of electricity each year.

## Practical recommendations

- Setting standards for what constitutes an APV (Agri-PV) system is crucial.
- Europe lacks a unified definition for Agri-PV, so incorporating ideas from German, French, and Italian regulations could establish clear standards.
- Financial support akin to past assistance for new green technologies is necessary for genuine APV systems.
- APV implementation requires a distinct setup, leading to higher initial costs; therefore, public support is vital.
- Expedited rule-making processes are needed to prevent delays in APV projects, possibly through providing ready-to-use designs and resolving grid connection issues.
- Given the decentralized nature of APV, alternative methods for grid expansion and supporting user groups are necessary.
- EU-level efforts to promote APV, ranging from research funding to local manufacturing, are imperative.
- Although the Horizon Europe program may not prioritize APV extensively, funding for testing new setups is crucial for rule-making and further understanding.
- Spreading awareness, from farmers to retailers and consumers, aids in bridging technology with consumer demand.
- Retailers can advertise APV products, educating consumers to seek environmentally friendly APV goods.



Figure 1: HyPERFarm Agrivoltaics Installations. Left) Krinner, Germany; center) Transfarm KUL, Belgium; right) Aarhus University, Denmark.

## Further information

[HyPERFarm Scientific publications](#);  
[HyPERFarm Practice Abstracts](#)  
[AgriPV Tool](#)

## About this abstract

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**AgroFossilFree** is a H2020 multi-actor project that will evaluate the current status in EU agriculture regarding energy use and assess existing needs, allowing farmers to optimize agricultural production through more efficient energy use and reduced GHG emissions, resulting in economic, agronomic and environmental benefits. AgroFossilFree will create a framework under which critical stakeholders will cooperate to evaluate and promote the currently available Fossil-Energy-Free Technologies and Strategies (FEFTS) in EU agriculture. The project is running from October 2020 to September 2023.

**Website:** [www.agrofossilfree.eu](http://www.agrofossilfree.eu)

