



Use Case 1

Energy communities: Distributed solar energy production forecasting and demand management

Use Case 1 focuses on **forecasting solar energy production** and managing demand to **optimise local energy efficiency**. Led by the National Observatory of Athens with EnergyFamily, it addresses **fluctuating solar production** due to weather changes and the **need for smart grid solutions**. By creating **3D models** of cities like Amstetten and Athens, it aims to **improve solar PV forecasts** and **develop smart grids** that align supply with demand, helping Distribution System Operators plan energy distribution and **fostering energy independence at the community level**.

For collaboration, contact **Dr. Panagiotis Kosmopoulos**
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ThinkingEarth

Copernicus Foundation Models for a Thinking Earth

ThinkingEarth will utilise AI to create Copernicus Foundation Models and a Graph representation of the Earth. Four Use Cases are being developed under the project.



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