P12: Monitoring Solar Panel Installations

Maturity score

Mean: 2.00	STD: 0.82

Constraints and limitations

- Cloud presence.
- Panels integrated into complex rooftop configurations can be harder to identify due to varying angles and orientations.

Relevant user needs

UN37: Projection of risk to portfolio assets into the future.

R&D gaps

- The availability and size of solar panels dataset to train the deep learning model.
- Higher costs as balancing higher spatial resolution (to detect small panels) with broader coverage (to monitor larger installations) can be challenging due to cost constraints.
- The resolution of thermal sensors is insufficient at the solar panel level.
- Price models for commercial EO data.

Potential improvements drivers

- Provide more training datasets.
- Higher-resolution thermal sensors.

Utilisation level review

Utilisation score

Mean: 3.00	STD: 0.89

No utilisation

Unawareness of the existence of this EO product.

Low utilisation

Medium utilisation

Unawareness of the existence of the best available commercial EO product with better specifications.

High utilisation

Critical gaps related to relevant user needs