

Presentation of EARE Platform

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EARE

ESA Ambassador Platform for
European Adoption of Renewable Energies



Renewable Energies:

- A key element to achieve a sustainable economy.
- SET Plan 20 20 20 objectives.
- A whole new set of technologies and services are demanded to succeed in this task

Space Technologies:

- Existing space assets support many economical activities, including communication, precise positioning or environment monitoring
- They are already used in many energy related activities, but not in a systematic way.
- An integrated approach combining space and non-space technologies can create larger synergies and provide better and more effective results.



Objectives of the EARE Platform:

1. To create **value-added sustainable services** for the benefit for the energy industry in the field of renewable energies:

- Identifying energy community needs and analyse them
- Developing systems combining existing technologies with space assets in the most cost-effective way to supply advanced operational services.
- Creating new business opportunities for both sectors.

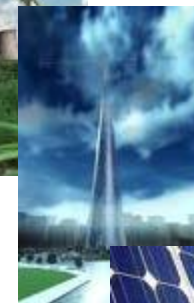
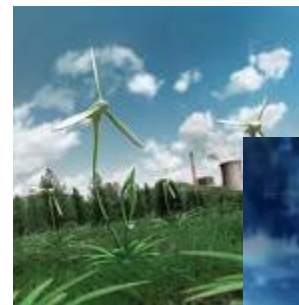
2. To **involve actively Energy and Space communities**:

- By creating a common space where both sectors can discuss their synergies.
- By allowing the teaming-up of relevant players in both areas to find operational solutions.
- By granting findings promotion, generating benefits and accelerating the adoption of renewable energies.



- **Energy Community:**
 - Far from the traditional space business.
 - Wide community with different needs, including:
 - Planning and setting-up
 - Energy generation and management.
 - Distribution and storage.
 - Infrastructure maintenance.
 - Main players show interest in the added-value of space, but they have no expertise / experience.

- **Awareness is necessary to federate the community:**
 - To identify relevant issues that can show the added-value of space.
 - To establish partnership with stakeholders / users to demonstrate the demand pull approach.
 - To reach a critical mass of users to guarantee sustainability.



- Connection of Renewable Energy Sources (RES) to the grids:

- Variable Energy sources (wind, solar, ...)
- RES load balancing mechanisms
- More Accurate forecast (for electricity generation, power plant management, etc.)



- Infrastructure, transport and resources monitoring:

- Optimisation of logistics in offshore environment.
- Warnings related to extreme events.

- Evolution towards the SmartGrid concept:

- GRID active and real-time monitoring
- Cost effective communication coverage
- Distributed management of micro / small power plants
- Transnational management of RES



EARE

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