



Energy Community of Practice

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- **TASK-EN-07-01: Management of Energy Sources**
 - MACC, EnerGEO are funded by EC as a dedicated GEOSS contribution
 - EC project MACC (Monitoring Atmospheric Composition and Climate) includes a radiation activity to prepare existing solar irradiance services Solemi and SoDa as a GMES (Global Monitoring for Environment and Security) service component.
 - EC project EnerGEO dealing with the quantification of environmental impacts of energy use (see EN-07-02)



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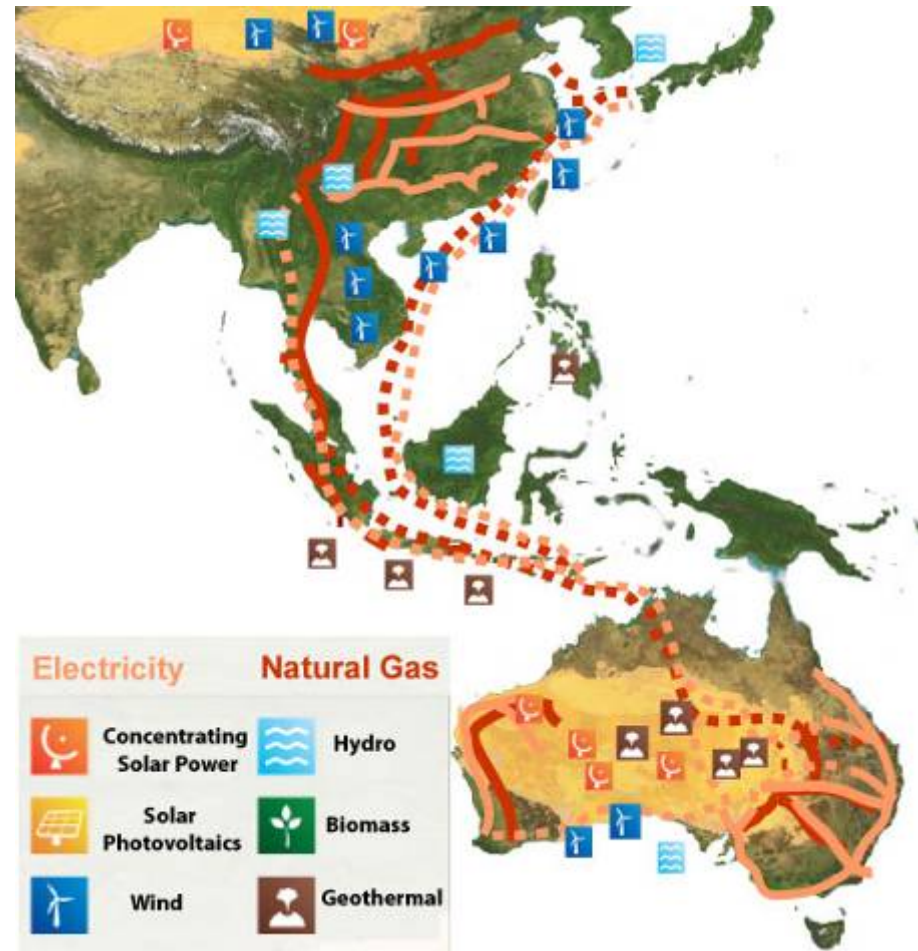
- All the solar activities are very much related with the Desertec initiative (<http://www.desertec.org/>) which is very much focused on the Northern African and Middle East region
- The DESERTEC Concept describes the perspective of a sustainable supply of electricity for Europe (EU), the Middle East (ME) and North Africa (NA) up to the year 2050. It shows that a transition to competitive, secure and compatible supply is possible using renewable energy sources and efficiency gains, and fossil fuels as backup for balancing power.



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Also <http://www.desertec-australia.org>

- DESERTEC's plans would enhance energy security, reduce regional greenhouse gas emissions and create a sturdy flexible, regional common-carrier energy infrastructure. Best of all, it would create jobs and economic growth in the sunrise industries of tomorrow. The vision is outlined in "Australia 2050: Clean Energy Superpower."
- *A pan-Asian energy superhighway could eventually stretch from Beijing to the Great Australian Bight*





GEOSS Architecture Implementation Pilot – Phase 3 (AIP-3): Lionel Menard

- **ENERGEO** main objective is to develop a strategy for a global assessment of the current and future impact of the exploitation of energy resources on the environment and ecosystems and to demonstrate this strategy for a variety of energy resources worldwide.
 - Within the ENERGEIO project it is planned to provide datasets in a GEOSS standard compatible format. Such datasets include Biomass, Wind, Fossil Fuel and Solar energy. The initial proposal describes solar energy photovoltaic scenario. Other energy-related datasets and scenarios coping with GEOSS recommendations coming from ENERGEIO partners might be provided within the AIP-3 time frame.



GEOSS Architecture Implementation

Pilot – Phase 3 (AIP-3): Lionel Menard

- The **GENESIS** project has the objective of providing those involved in environment management and health services in Europe with an **efficient, web-based solution** for monitoring air quality, fresh and coastal water quality and their impacts on health. The advanced, ICT-based solution that will result from this research and development will combine open, **collaborative information networks** while integrating systems that already exist in Europe.
 - Made up of a generic software package, relying on standards – W3C, CEN, ISO, OGC, OASIS – and developed in conjunction with other EU harmonisation initiatives – GEOSS, INSPIRE – this framework provides the interoperability layer to existing systems, so all can access environmental databases or services available to regional, national and European levels.
 - The framework can be customised for various thematic fields and deployed in many contexts. The solution is validated through real use-case scenarios in air quality, fresh and coastal water quality domains and their impacts on health can be accessed and monitored.