ENDORSE

Providing energy components for GMES

GETTING THE MOST OF RENEWABLE RESOURCES

Green energy is a growth sector, yet more reliable estimates of the potential of renewable resources as well as user-orientated tools are needed to optimise Europe's return on green investments. The ENDORSE project is set to deliver such valuable information to European businesses and public authorities.

The potential of new solar, wind and biomass technologies for energy is dependent on local and regional climate factors. Their effective exploitation requires careful intelligence analysis in terms of power system planning and operations. Information from satellites has the potential to further enhance the reliability of such data.

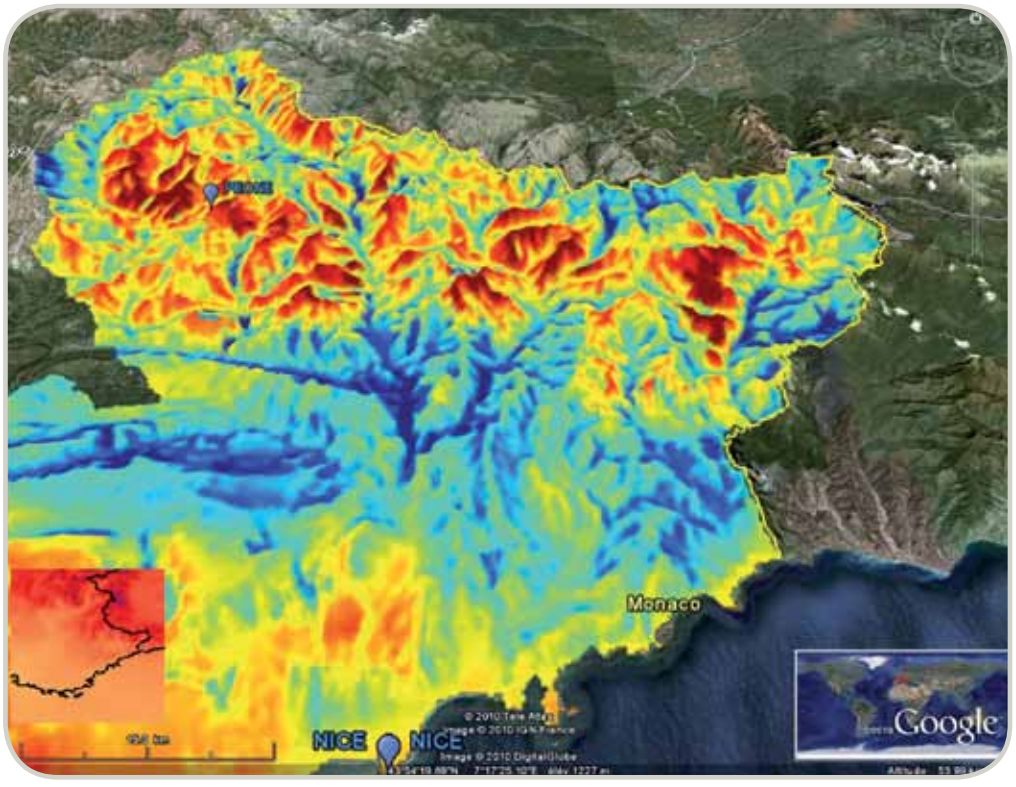
The ENDORSE project combines information from the GMES atmosphere, land and emergency response service projects MACC, Geoland2 and SAFER with a view to providing public authorities and private investors with accurate evaluation and forecasts of renewable resources.

Reliable intelligence on resources determines where investments are profitable and how much the plants may produce. It helps in detecting failures in plant operation and issuing early warning to managers, thereby preventing large losses in production.

The operators of electricity distribution grids face increasing shares of renewable sources in their grids. Accurate and locally-detailed forecasts of resources within the next few hours are a prerequisite to prevent grid instability and subsequent local blackouts.

Low-energy buildings rely on a large use of daylight to reduce the use of artificial light. Accurate evaluation of available daylight is essential to optimize the use of daylight with control systems in building design or retrofitting as well as energy regulation policies.

LUCIEN **WALD**
IS PROJECT COORDINATOR



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ENDORSE provides critical intelligence on renewable resources: solar, wind and biomass energy, to promote them in buildings, electricity production and grid management.

QUESTIONS & ANSWERS

What do you want to achieve with this project?

Advances in environmental modelling will be achieved with a focus on solar radiation and air temperature at surface. Methods and user-orientated services will be developed, demonstrating the value of the GMES Services and stimulating their use in the renewable energy sector.

Why is this project important for Europe?

ENDORSE will realise tools aiming at an increasing use of renewable sources, with a decreasing dependency of Europe on fossil fuels and non-European suppliers. It supports the efforts towards a sustainable Europe and contributes to the European excellence in the space sector.

How does your work benefit European citizens?

Reliable intelligence on renewable sources yields a greater efficiency in the production of energy, thus a decrease in costs of renewable energy for citizens. ENDORSE will also support the economic sustainability of this sector, thus indirectly contributing to employment.

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LIST OF PARTNERS

- DLR (Deutsches Zentrum für Luft- und Raumfahrt e.V.), Germany
- iCons, Italy
- Transvalor, France
- Flyby, Italy
- Ulm University of Applied Sciences, Germany
- University of Genoa, Italy
- Ecole Nationale des Travaux Publics de l'Etat, France
- 3E, Belgium
- Joint Research Centre, European Commission, Italy

COORDINATOR

Armines, France

CONTACT

Lucien WALD
Tel: +(33) 493957449
E-mail: lucien.wald@mines-paristech.fr

PROJECT INFORMATION

Providing energy components for GMES - Energy DOwnstReam Services (ENDORSE)
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Estimated total cost: € 3.176.340

GMES DOWNSTREAM SERVICES