

Joint Research Centre

the European Commission's in-house science service

*Serving society
Stimulating innovation
Supporting legislation*

Smart Specialisation Platform on Energy (S3P-Energy)

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Studies**

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Agenda

Part I

1. The Smart Specialisation Platform on Energy
 - Actors involved (DG REGIO, DG ENER, DG JRC – IPTS/IET)
 - Objectives and Tasks

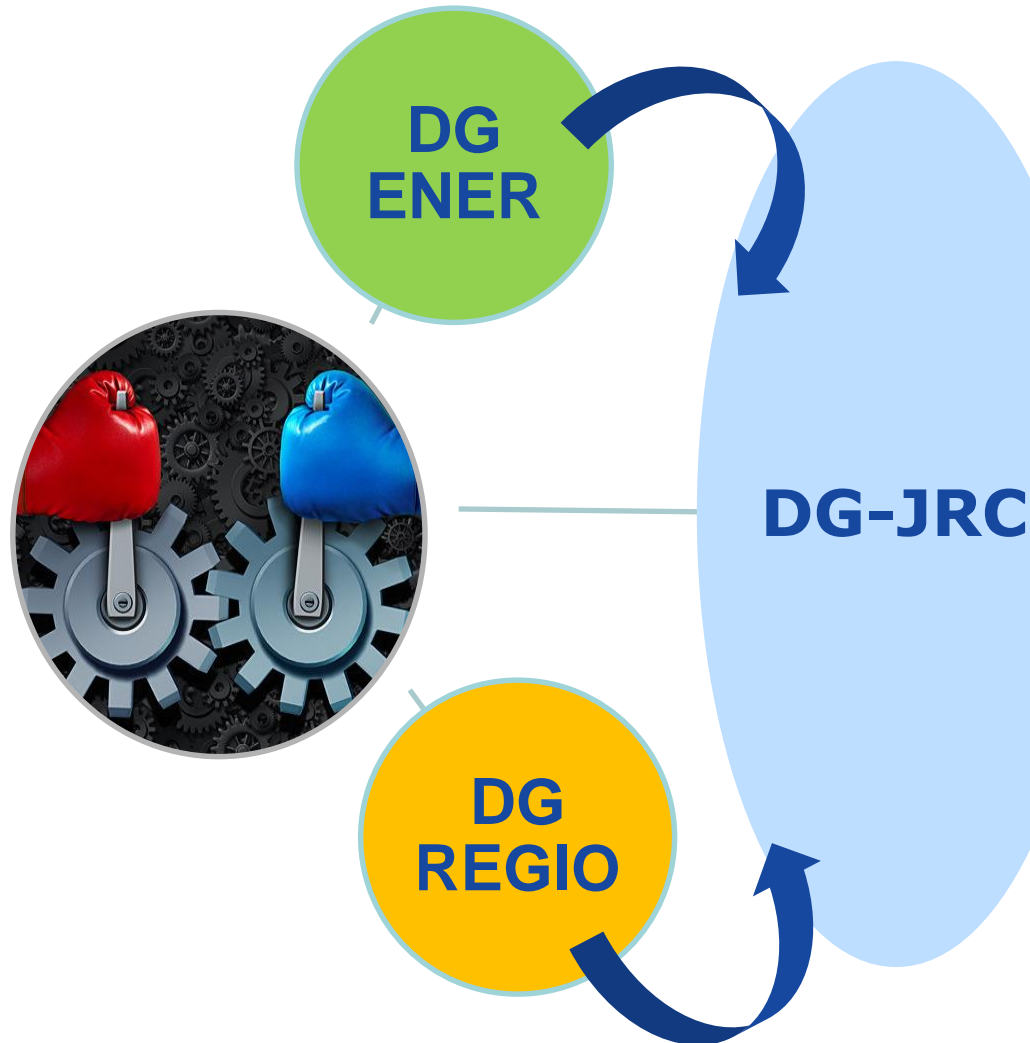
Part II

1. Institute for Energy and Transport (IET)
2. IET in the S3P-E
3. Regional Energy Mapping: first findings

What's next?

1. The S3 Platform on ENERGY

A single project combining multidisciplinary competences and expertise in energy, innovation, regional policies from...



IPTS Units:

1. Knowledge for Growth – **lead partner** (S3 Platform)
2. Economics of Climate Change, Energy and Transport

IET Units:

3. Energy Conversion & Storage Technologies
4. Energy Technology Policy Outlook
5. Renewables & Energy Efficiency
6. Energy Security, Systems and Market

2. OBJECTIVES of the S3P-Energy?

- Optimal uptake of the Cohesion Policy funds for energy.
- Align energy innovation at national, regional and local level with the EU priorities.

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but... how to achieve these objectives?

WP1

WP2

WP3

WP4

WP1 Policy research and implementation advice



Mapping, knowledge development, analysis of:

- S3 energy-related priorities
- Trends and geographical distribution of energy-related priorities
- Cohesion Policy funding for energy.

WP1

WP2

WP3

WP4

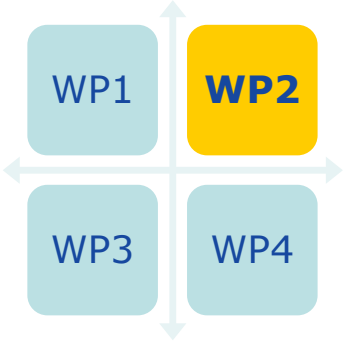
WP1 Policy research and implementation advice



Mapping, knowledge development, analysis of:

- S3 energy-related priorities – *Part II of this presentation*
- Trends and geographical distribution of energy-related priorities
- Cohesion Policy funding for energy.

WP2 Mutual transnational learning



Thematic advice and matchmaking for regions:

- Identification of problem areas and intervention-related issues, e.g. indicators and policy instruments.
- Encouraging the active engagement of regions/MS on knowledge sharing, including stakeholders.
- Facilitating regional specific cooperation on energy.

WP1

WP2

WP3 Information, communication, dissemination

WP3

WP4



Web pages & info sheets

<http://s3platform.jrc.ec.europa.eu/s3p-energy>

- A dedicated part within the S3 Platform portal with links to the partners
- Specific websites or fiches on specific energy topics
- Facilitating the sharing of good practices on the web
- Dissemination of info. through the monthly S3 Newsletter

Events on Cohesion Policy funding for energy

- High-level events
- Contribution to OpenDays & EU Sustainable Energy Week
- Participation in events organised by regions/MS (e.g. fuel cell, sustainable construction, etc.)



European
Commission

WP1

WP2

WP3

WP4

WP 4 Specific information and analysis in support of DGs ENER and REGIO



Benefiting from a hub position, feedback from regions will be conveyed, including:

- Overviews of good practice examples
- Analytical reports supporting policy-related topics



Agenda

Part I

1. What is the Joint Research Center?
2. What is the Smart Specialisation Platform on Energy?
 - Actors involved
 - Objectives and Tasks

Part II

1. **Institute for Energy and Transport (IET)**
2. **IET in the S3P-E**
3. **Regional Energy Mapping: first findings**

What's next?

JRC Institute for Energy and Transport



The mission of the IET is to provide support to Community policies and technology innovation related both:

Energy – to ensure sustainable, safe, secure and efficient energy production, distribution and use and

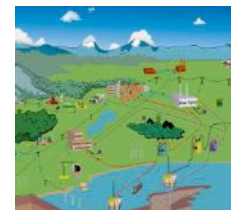
Transport – to foster sustainable and efficient mobility in Europe

It is based both in Petten (NL) and Ispra (IT) and has a multidisciplinary team of around 300 academic, technical, and support staff.

JRC Institute for Energy and Transport

KEY AREAS

- **Renewable energy**
- **Sustainable & safe nuclear energy**
- **Energy Security, Systems and Markets**
- **Energy technologies modelling & assessment**
- **Alternative fuels**
- **Hydrogen and fuel cells**
- **Sustainable transport**
- **Energy efficiency**



JRC/IET in the frame of S3P-Energy

What JRC/IET can provide

- Analysis of smart specialisation process from the perspective of energy-relevant themes.
- Identification of **key issues** of interest and challenges for regions/MS related to the Cohesion Policy funding for energy, and for **energy innovation** and support for **identifying solutions**.
- Facilitating further **regional specific cooperation on energy**
- Identifying and describing/analysing **clusters** of issues (e.g. priorities, instruments, policies, indicators) of common interest to a number of regions

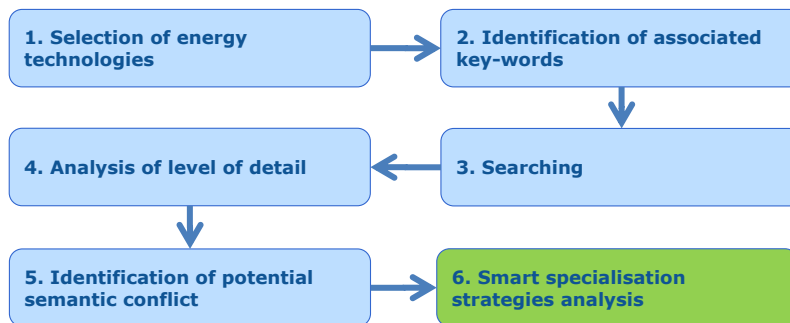
Regional energy mapping

Goal

To identify and to map capacities of regions based on their energy interests

Methodological remarks

- Analysis based on the description included in the RIS@EYE3



The screenshot shows the EYE@RIS3 web application interface. The top navigation bar includes links for Home, S3 Platform, S3 Sections, S3 Tools (highlighted), News, Events, and Knowledge Repository. A search bar is located on the right. The main content area features a map of Europe with regions highlighted in green. To the right of the map are several filter panels for Research & Innovation Capabilities, Business Areas & Target Market, and EU Priority. Below these filters is a table of results for Austria, showing details for various regions and their associated priorities.

Name (NUTS ID)	Description	Research & Innovation Capabilities	Business Areas & Target Market	EU Priority
Austria [AT] Energy & en...		1. Energy production & distribution		1. Sustainable innovation 2. Eco-innovations
Austria [AT] ICT (enbroad) e...		1. Information & communication technologies (ICT)	1. Information & communication technologies (ICT)	1. Digital Agenda
Austria [AT] Life sciences		1. Human health & social work activities	1. Human health & social work activities	1. Public health & security
Austria [AT] Materials & p...		1. Manufacturing & industry	1. Manufacturing & industry	1. KETs 2. Advanced manufacturing systems
Austria [AT] Mobility		1. Transporting & storage	1. Transporting & storage	1. Sustainable innovation 2. Smart green & integrated transport systems

Regional energy mapping

Methodological remarks

- List of energy technologies according to those technologies included in SETIS (Strategic Energy Technologies Information System - <https://setis.ec.europa.eu/>)

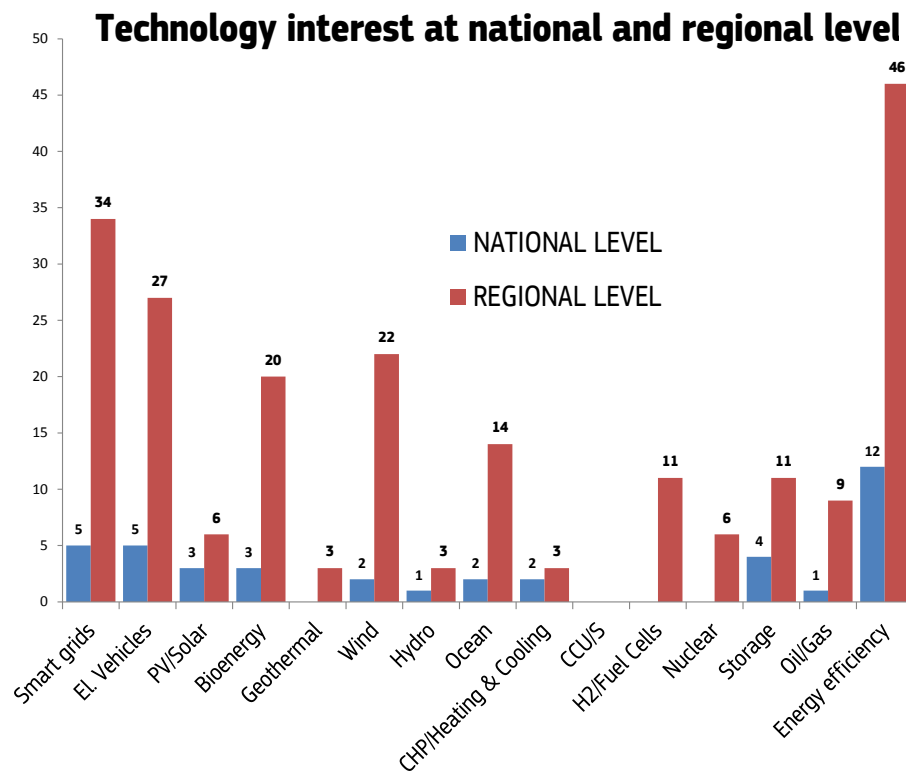
- *Smart grids*
- *Electric vehicle*
- *Solar*
- *Bioenergy*
- *Geothermal*
- *Wind*
- *Hydro*
- *Ocean*
- *CHP*
- *Hydrogen & Fuel Cells*
- *Nuclear*
- *Storage*
- *Oil/Gas*
- *Energy efficiency*



- Semantic issues: general concepts such as *Energy* or *Renewable Energy*

First findings (I)

- 198 territorial units including countries and regions refer to energy in their strategies
- Different technologies involved (Smart Grids, Energy Efficiency*, e-mobility and Wind)



First findings (II)

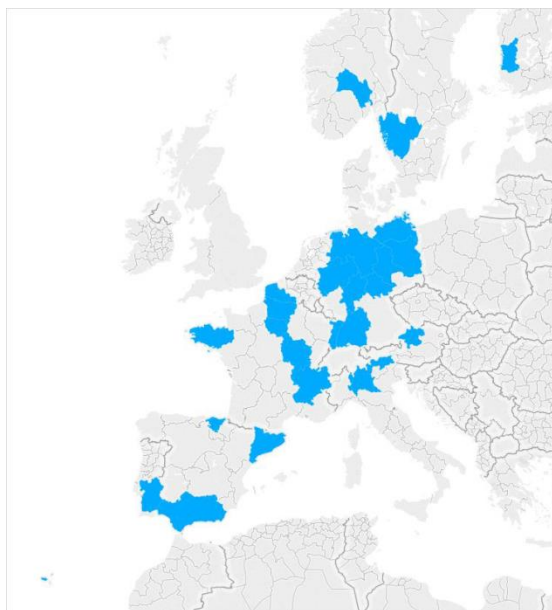
Certain level of geographical aggregation for some technologies: **Wind and Ocean**

Scattered regions on cross-cutting technologies: **Energy Efficiency**

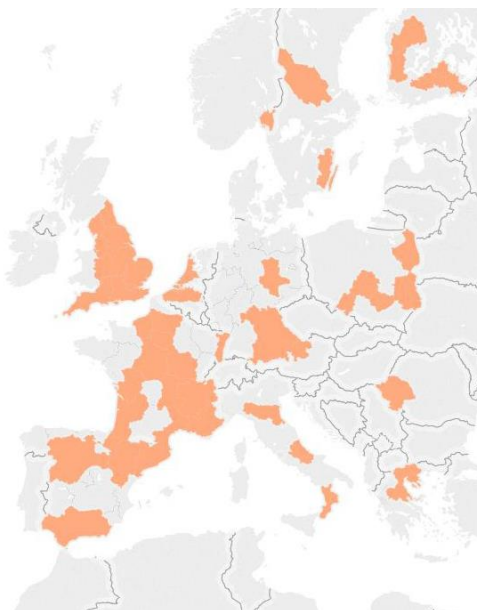
Wind



Ocean



e-Mobility



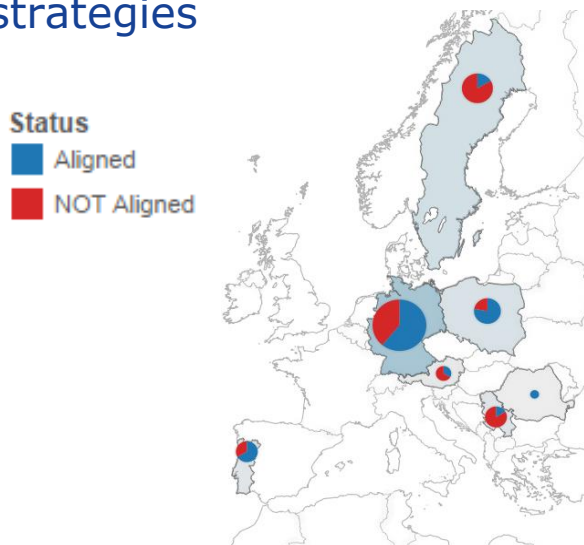
Energy Efficiency

First findings (III)

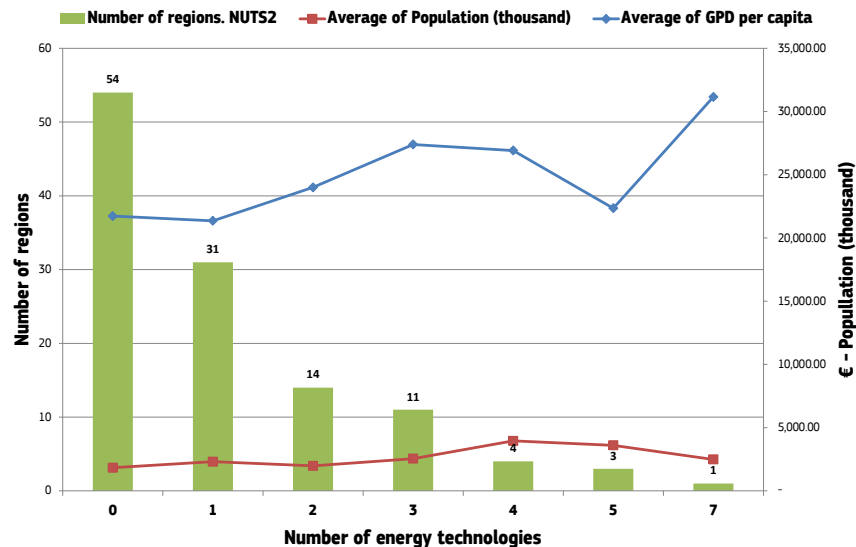
There is no a clear correlation between

- innovative capacities (patents, R&D expenditures,...) and the level of interest of regions
- Energy costs
- Size and regional wealth

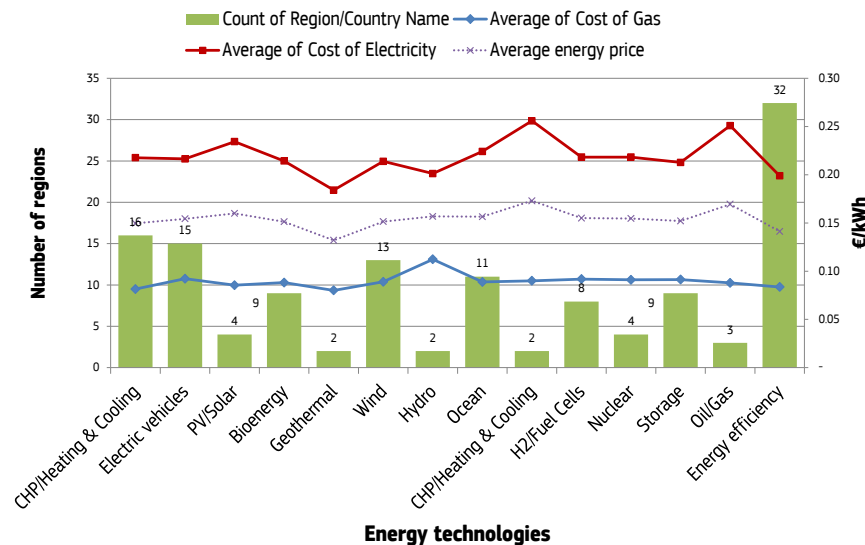
Not clear the alignment of regional and national strategies



Average NUTS2 regional population and GDP per number of energy technology interest



Average energy cost per NUTS2 regions with common energy technology interest



What's next?

Identifying the main themes for collaboration (*from this workshop?*)

Thematic energy technology workshops (foreseen in 2016, Q3/4)

- Heating & Cooling; Offshore energy; FC/H2; Smart Grids; Others?

Approach: combine Policy & Technology aspects. Successful cases

Any region interested in hosting such events?

- **Supporting on energy deployment in regions based on specific needs**
- **Analysis of impacts of ESIF funds**
- **Any other activity that may meet region energy needs...**

