

# Smart Specialisation Platform on Energy

Interregional Seminar, BUILD2LC PROJECT  
Vilnius, 10 January 2017

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Territorial Development Unit

[www.jrc.ec.europa.eu](http://www.jrc.ec.europa.eu)



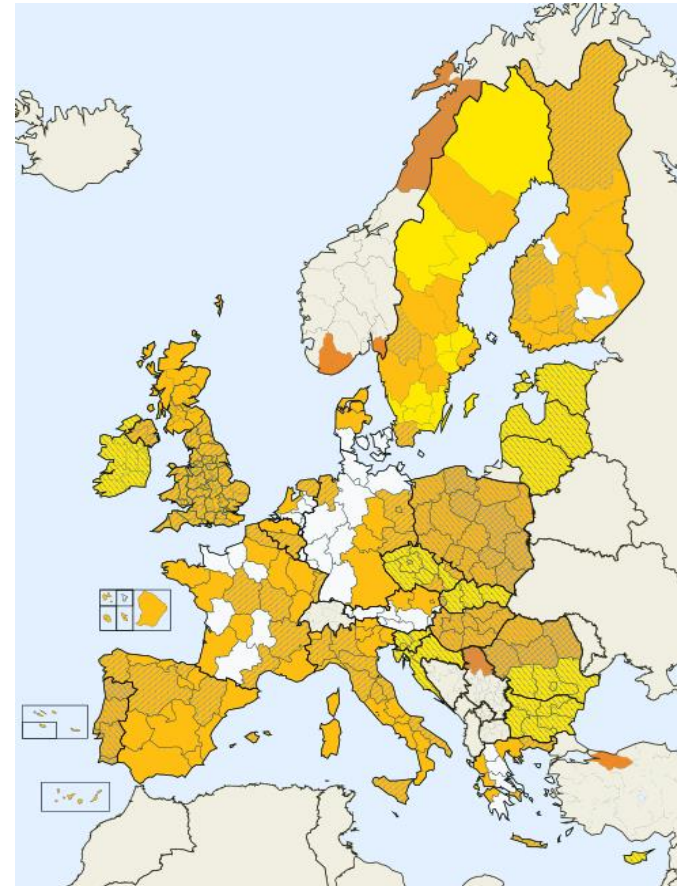
*Serving society  
Stimulating innovation  
Supporting legislation*



## **S3P-ENERGY** is deeply rooted in previous experience accumulated by the S3 Platform **since 2011**



- Wide membership:  
**160 regions +  
16 countries**
- Bottom-up work with regions
- RIS3 as *ex ante* conditionality for ERDF 2014–2020



## Why Energy?

EU-28 energy priorities in online Eye@RIS3 tool



- Energy is the **most popular** priority in S3
- **2/3** of all regions have chosen an energy priority.

12 countries

100 EU regions

some both at the national and regional level –  
e.g. DE, DK, PL



EU Countries with Encoded S3 Priority

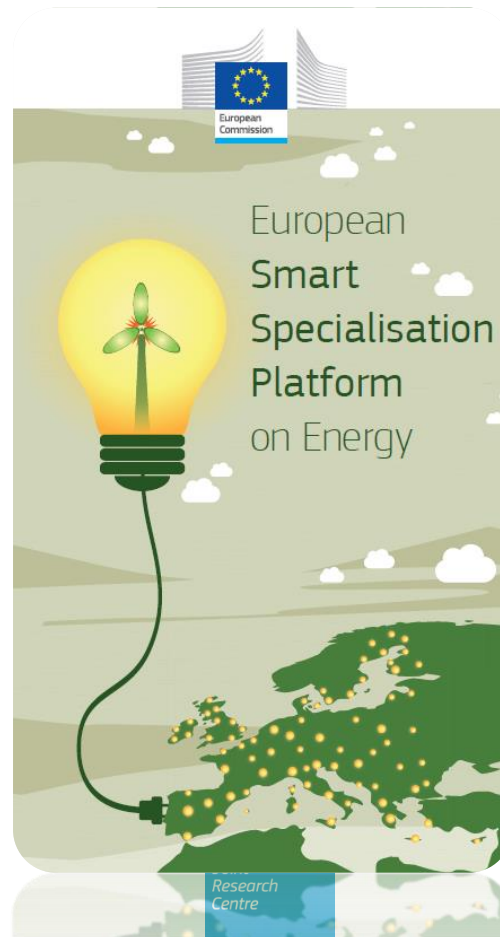
EU Regions with Encoded S3 Priority



## **Joint** initiative that engages DGs REGIO, ENER and Joint Research Centre

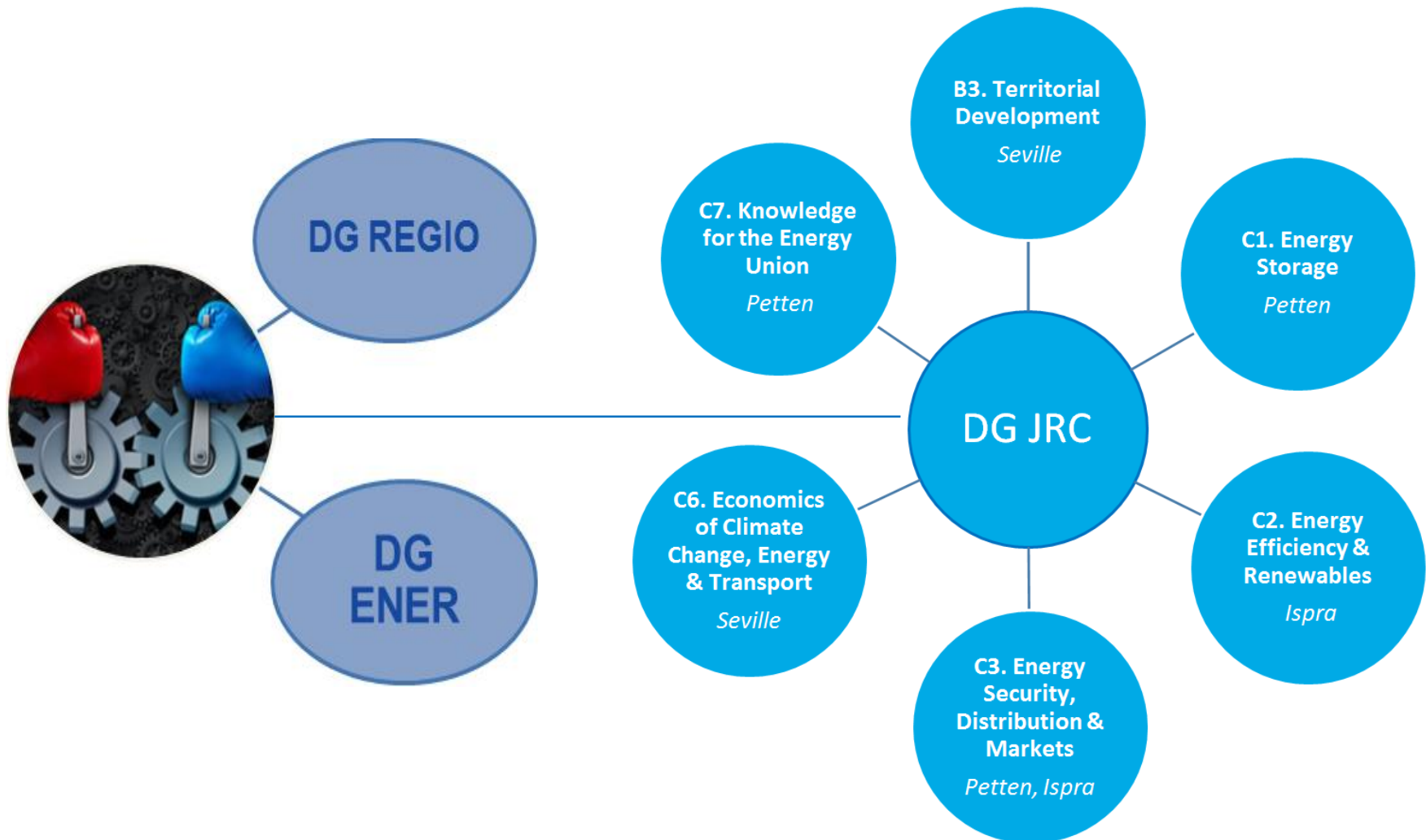
- **Objectives:**

- Optimal uptake of the Cohesion Policy funds for energy.
- Support energy innovation at all levels and their alignment with EU priorities



- **Bottom-up** approach: work with regions!
- Targeted **activities**

## Partners of the S3PEnergy



## Work packages





**Policy research  
and  
implementation  
advice**

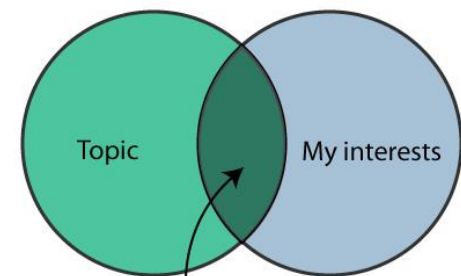


***Conference papers:***

- Capitalising on Smart Specialisation and Interreg, the case of energy.
- EU Regional Benchmarking to Assess Territorial Patterns under Energy Technologies Selected in the Framework of Smart Specialisation.

***Research topics on the agenda***

- Global Value Chains
- Social Innovation
- Funding schemes



Focus on areas you are interested in within the topic

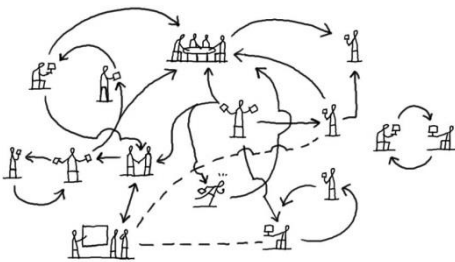


**Policy research  
and  
implementation  
advice**



**ESIF Energy Monitoring tool:** the work carried out in the framework of the ICT Monitoring tool developed within the Smart Specialisation Platform has been the reference to elaborate a more tailored tool for energy.

**Mapping of capacities in energy:** after a first analysis leading to determine the type of information and design of the main criteria to be included in the mapping (e.g. industrial and technological capacities), the S3PEnergy will work on the tool elaboration and visualisation of the identified information.





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LIST OF EVENTS OF THE S3PENERGY

Date	Title	City (Country)
26 May 2015	<a href="#">High level launching event of the S3PENERGY</a>	Brussels (BE)
22 April 2015	<a href="#">First Smart Specialisation workshop on Fuel Cells &amp; Hydrogen</a> (co-organised JU-Rhone-Alpes)	Lyon (FR)
8-9 July 2015	<a href="#">113th Plenary Session of the Committee of the Regions CoR</a> (with Exhibition stand to explain to interested CoR Members what the S3P on energy is about).	Brussels (BE)
8-9 October 2015	<a href="#">RIS3 Implementation workshop on Blue Growth and Marine Energy</a> (with Canarias)	Las Palmas (ES)
27-30 October 2015	<a href="#">Support to the EU Strategy for the Danube Region (EUSDR)</a>	Ulm (DE)
3 Dec 2015	<a href="#">Towards a model of Sustainable Construction and Energy Efficient Buildings</a>	Seville (ES)
9 March 2016	<a href="#">Embedding Energy Union in the Regions</a> , co-organised with ERRIN (European Regions Research and Innovation Network)	Brussels (BE)
06 April 2016	Smart Specialisation (energy priorities), (back to back with <a href="#">S2E national event in Slovenia</a> )	Ljubljana (SI)
10-11 May 2016	<a href="#">III European Network of Energy Authorities and Managing Authorities of the Cohesion Policy</a>	Brussels (BE)
1-2 June 2016	<a href="#">SMART REGIONS Conference - High Level Event</a> : Thematic Session on Energy, Brussels, (co-organised JU-RA)	Brussels (BE)
16 June 2016	<a href="#">Sustainable Energy Week: Smart Specialisation in Energy. How Europe's regions are implementing their priorities</a>	Brussels (BE)
23-24 June 2016	<a href="#">Smart Grids and Smart Specialisation. Smart Mediterraneo</a> - IET	Bari (IT)
4-5 July 2016	<a href="#">How to build Smart Energy Regions</a> : Regional perspectives on energy transition (with Baden-Württemberg)	Karlsruhe (DE)
13-14 October 2016	<a href="#">S3PENERGY in the European Week of Regions and Cities (EWRC) 2016</a> : <ul style="list-style-type: none"> <li>- Plenary session: "Smart Specialisation in Energy and innovation in European Regions"</li> <li>- Parallel working sessions on S3 Energy Partnerships</li> </ul>	Brussels (BE)

**Mutual  
transnational  
learning  
arena**

## **LAUNCH OF THE S3P ENERGY**, May 2015, Seville **SMART REGIONS CONFERENCE**, 1st June 2016, Bxl

More than 700 Participants

Teaming up regions, interregional cooperation and matching priorities

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arena**



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OPEN INVITATION TO EU REGIONS FOR

### **Smart interregional cooperation in Energy**

**Bioenergy**      **Sustainable  
Construction**      **Marine  
Offshore**      **Smart  
Grids**

**#S3PEnergy**

**Mutual  
transnational  
learning  
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**"S3 Energy Partnerships"**

offering interactive and participatory arenas for interregional cooperation

**Marine Renewable Energy**

Interested regions: Basque Country, Andalusia, Asturias, Navarra, (ES), Scotland (UK), Brittany, Normandie (FR), Dalarna, Skåne (SE), Emilia-Romagna, Lombardia (IT), Flanders (BE), Norte (PO), Ostrobothnia (FI), Southern Denmark (DK), Sogn og Fjordane (NO)

Identified links with other initiatives: ADMA Pilot of the Vanguard Initiative, Conference of Peripheral and Maritime Regions (CPMR), regional clusters, Ocean Energy Europe, Ocean Energy Forum, OceanEra-Net, Horizon 2020 projects (e.g. ETIPWind, ETIP OCEAN), Interreg projects...

**Bioenergy**

Interested regions: Lapland, North Karelia, South Savo, East and North Finland (FI), Castilla y Leon, Extremadura, Asturias (ES), Western Macedonia (GR), Eastern Norway (NO), North East Romania (RU) and Norrbotten, Jokkmokk (SE)

Identified links with other initiatives: ERRIN bioeconomy Working Group and its bioeconomy regions mapping, [JRC bioeconomy observatory](#), Vanguard Initiative on bioeconomy, Committee of the Regions and Knowledge exchange platform on bioeconomy, EU-funded projects such as Bioregions, National bioenergy region initiatives such as the German Bioenergie Regionen...

**Sustainable construction**

Interested regions: Andalusia, Navarra (ES), Norra Mellansverige y North Midsweden (SE), Lapland (FI), Gloucestershire County (UK), Gorenjska (SI), Rzeszow (PL), North-West Croatia, Jämtland Region (SE), Lithuania

Identified links with other initiatives: ERRIN Energy Working Group, Interreg Europe project BUILD2LC...

**Smart Grids**

Interested regions: Pomorskie (PO), Algarve (PT), Bretagne, Provence-Alpes-Côte d'Azur (FR), Northern Netherlands (NE), South Trans-Danubian (HU), Andalusia, Basque Country (ES), North Midsweden (SE), West Finland (FI)

Identified links with other initiatives: [JRC Smart Grid Observatory](#), regional clusters, Horizon 2020, Interreg projects (e.g. SET-UP)...

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



**Mutual  
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**Strengthening EU synergies:** exploring cooperative synergies with other partners and initiatives is included in the S3PEnergy work programme 2016-2017. Already established collaboration with Vanguard Initiative, ERRIN, INTERREG and KIC-INNOENERGY).



Registration Form: <http://s3platform.jrc.ec.europa.eu/registration-in-s3p-energy>



**European Smart Specialisation Platform on energy**  
#S3PEnergy

**REGISTRATION FORM - S3PEnergy**

Welcome to the Smart Specialisation on Energy (S3PEnergy). S3PEnergy focuses on the area of energy, but builds on the work of the S3 Platform, which was created in 2011 to provide science-based professional advice to EU national and regional policy-makers to establish and implement their research & innovation strategies for smart specialisation (RIS3). **Before registering for the S3PEnergy, please kindly read this information carefully:**

**FOR MEMBERS OF S3PEnergy:**

- If your country/region **is** already a member of the S3 Platform, the contacts already available will automatically become a member of S3PEnergy. It would be appreciated if you provided a second contact point for your region, which should be the person in charge of energy policy. Please fill in this registration form to do so.
- If your country/region **is not** yet a member of the S3 Platform but is interested in joining S3PEnergy, note that it will automatically become a member of the S3 Platform unless specifically otherwise demanded by emailing to [JRC-IPTS-S3PLATFORM-ENERGY@ec.europa.eu](mailto:JRC-IPTS-S3PLATFORM-ENERGY@ec.europa.eu)

**FOR PEERS/FRIENDS:**

You are all very much welcome to join S3PEnergy. We are looking forward to working with you!

**Please, select the profile with which you would like to be registered in the S3PEnergy to be informed of our activities: \***

**MEMBERS OF THE S3PEnergy** - This category is reserved to governments and their agencies.

Governments and their agencies

**FRIENDS/PEERS OF THE S3PEnergy** - This category includes all public-private actors in the innovation system interested in energy policy.

EU institutions (please, specify affiliation/position)

Research

Industry

Networks

Civil Society

Other (please, specify)

**Please, select the energy field in which you work: \***

Renewable Energy

Hidro power  
*Further information*

Geothermal Energy  
*Further information*

Solar energy - photovoltaic  
*Further information*

Solar energy - thermal  
*Further information*

Information,  
communication  
and  
dissemination

## What does S3PEnergy expect from Member States and regions?



**Active participation**  
in platform activities and feedback requests



**Cooperation spirit**  
with other platform members



**Collaboration**  
with territorial actors of same and other regions



**Sharing information**  
on related initiatives, key results and good practices



**Be aware**  
of (and committed with) the significance of bottom-up approach in Smart Specialisation



**Benefiting**  
from the S3PEnergy hub position

## Related links and further information

For any kind of enquires and feedback please send us an e-mail to:

[jrc-ipts-s3platform-energy@ec.europa.eu](mailto:jrc-ipts-s3platform-energy@ec.europa.eu)

Follow us on:

@S3Platform

#S3PEnergy

Website:

[s3platform.jrc.ec.europa.eu/s3p-energy](https://s3platform.jrc.ec.europa.eu/s3p-energy)

For registration:



**Information,  
communication  
and  
dissemination**



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

The screenshot shows the 'S3 Thematic Platforms' page. On the left, there is a sidebar with a list of categories: Agri-Food, Energy, S3 Energy Partnerships (with sub-links for Strategic Energy Technology Plan, Technologies Factsheets, and Related EU energy initiatives), Industrial Modernisation, and About our methodology. Below this is an 'Events' section with a link for 'Smart Grid Challenges and Opportunities in the Baltic'. The main content area features a large banner for 'OPEN INVITATION TO EU REGIONS FOR Smart interregional cooperation in Energy'. The banner includes icons for Bioenergy, Sustainable Construction, Marine Offshore, and Smart Grids, along with the hashtag #S3PEnergy. Below the banner is a 'What?' section with a paragraph: 'Based on a bottom-up approach, the S3PEnergy is currently facilitating the creation of "S3 Energy Partnerships", offering interactive and participatory...'.

Information, communication and dissemination

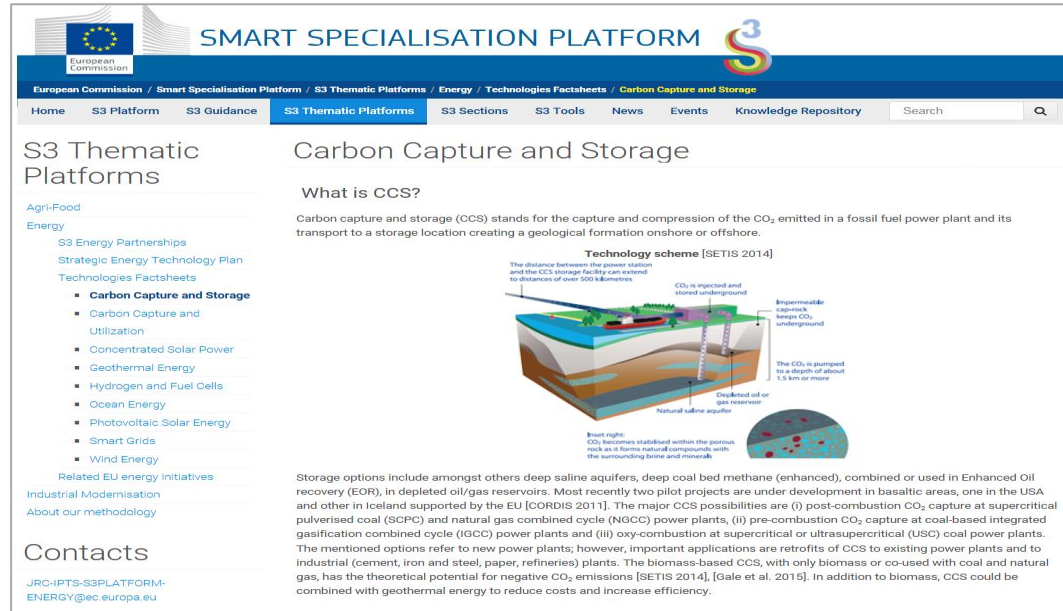
This screenshot shows the 'Energy' section of the S3 Platform website. The top navigation bar includes 'Home', 'S3 Platform', 'S3 Guidance', 'S3 Thematic Platforms', 'S3 Sections', 'S3 Tools', 'News', 'Events', 'Knowledge Repository', and a search bar. The 'S3 Thematic Platforms' sidebar is visible on the left. The main content area features a 'FLASH NEWS - Invitation for Smart Interregional Cooperation in Energy' box. The text in the box reads: 'The Smart Specialisation Platform on Energy (S3PEnergy) invites EU regions to cooperate on S3 priorities related to Energy, facilitating the creation of "S3 Energy Partnerships". More information is available here.' Below this, it states: 'Working sessions were organised on 13 and 14 October 2016 on Bioenergy, Sustainable Construction, Marine Renewable Energy and Smart Grids. Further information on the event (agenda, presentations, follow-up reports and web-streaming) is available here.' Below the flash news is a section titled 'Energy and the Smart Specialisation Platform on Energy (S3PEnergy)' with a paragraph: 'Energy is a topic with high interest amongst the Member States and regions registered at the S3 Platform on smart specialisation. These strategies set priorities at national and regional level to build competitive advantage by developing and matching research and innovation own strengths with business needs, to address emerging opportunities and market developments in a coherent manner, while avoiding duplication and fragmentation of efforts. They may take the form of, or are included in, a national or a regional research and innovation'.

## Technologies factsheets

Specific factsheets covering the work carried out by the JRC-Dir C have been uploaded to the S3PEnergy website section, including:

- [Carbon Capture and Storage](#)
- [Carbon Capture and Utilization](#)
- [Concentrated Solar Power](#)
- [Geothermal Energy](#)
- [Hydrogen and Fuel Cells](#)
- [Ocean Energy](#)
- [Photovoltaic Solar Energy](#)
- [Smart Grids](#)
- [Wind Energy](#)

Information,  
communication  
and  
dissemination



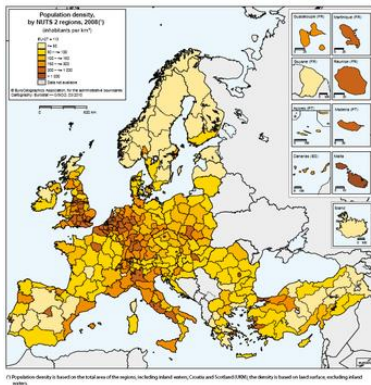
The screenshot shows the S3 Platform website interface. The main content area is titled "Carbon Capture and Storage" and includes a "What is CCS?" section. Below this is a "Technology scheme [SETIS 2014]" diagram. The diagram illustrates the process of CO<sub>2</sub> capture and storage. It shows a power plant on the surface with a pipeline leading to a storage facility. The storage facility is located in a geological formation, specifically a "Natural saline aquifer". The diagram labels the "CO<sub>2</sub> is injected and stored underground" and shows the "Impermeable caprock" and "Weak CO<sub>2</sub> underground". A note states: "The distance between the power station and the CCS storage facility can extend to distances of over 500 kilometers." Another note says: "The CO<sub>2</sub> is pumped to a depth of about 1.5 km or more." A final note explains: "First right: CO<sub>2</sub> becomes stabilised within the porous rock as it forms natural compounds, with the surrounding brine and minerals." Below the diagram, the text describes storage options: "Storage options include amongst others deep saline aquifers, deep coal bed methane (enhanced), combined or used in Enhanced Oil recovery (EOR), in depleted oil/gas reservoirs. Most recently two pilot projects are under development in basaltic areas, one in the USA and other in Iceland supported by the EU [CORDIS 2011]. The major CCS possibilities are (i) post-combustion CO<sub>2</sub> capture at supercritical pulverised coal (SCPC) and natural gas combined cycle (NGCC) power plants, (ii) pre-combustion CO<sub>2</sub> capture at coal-based integrated gasification combined cycle (IGCC) power plants and (iii) oxy-combustion at supercritical or ultrasupercritical (USC) coal power plants. The mentioned options refer to new power plants; however, important applications are retrofits of CCS to existing power plants and to industrial (cement, iron and steel, paper, refineries) plants. The biomass-based CCS, with only biomass or co-used with coal and natural gas, has the theoretical potential for negative CO<sub>2</sub> emissions [SETIS 2014], [Gale et al. 2015]. In addition to biomass, CCS could be combined with geothermal energy to reduce costs and increase efficiency."

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





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**Specific  
information and  
analysis in  
support of DGs  
ENER & REGIO**



# Thank you



#S3PEnergy @S3Platform

[JRC-IPTS-S3PLATFORM-ENERGY@ec.europa.eu](mailto:JRC-IPTS-S3PLATFORM-ENERGY@ec.europa.eu)