

Smart Specialisation Platform on Energy

Manuel Palazuelos Martínez

Team Leader/Project Leader, JRC.IPTS, IPTS, Seville



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*Serving society
Stimulating innovation
Supporting legislation*

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 Priorities

EU Regions with Encoded S3 Priorities





S3 Platform on Energy

DG
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- Supports the optimal and effective uptake of the Cohesion Policy funds for Energy.
- Assists countries and regions to set up strategies to accelerate the development of a technology-based low-carbon economy.

JRC's multidisciplinary competences in

- energy,
- innovation,
- regional policy...



...integrated in
a single project.

**DG
ENER**

**DG
JRC**

**DG
REGIO**

Institute for Prospective
Technological Studies (IPTS)

Institute for Energy and Transport
(IET)

•**IPTS Units:**

1. **S3 Platform**, Knowledge for Growth – **lead**
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

TASKS

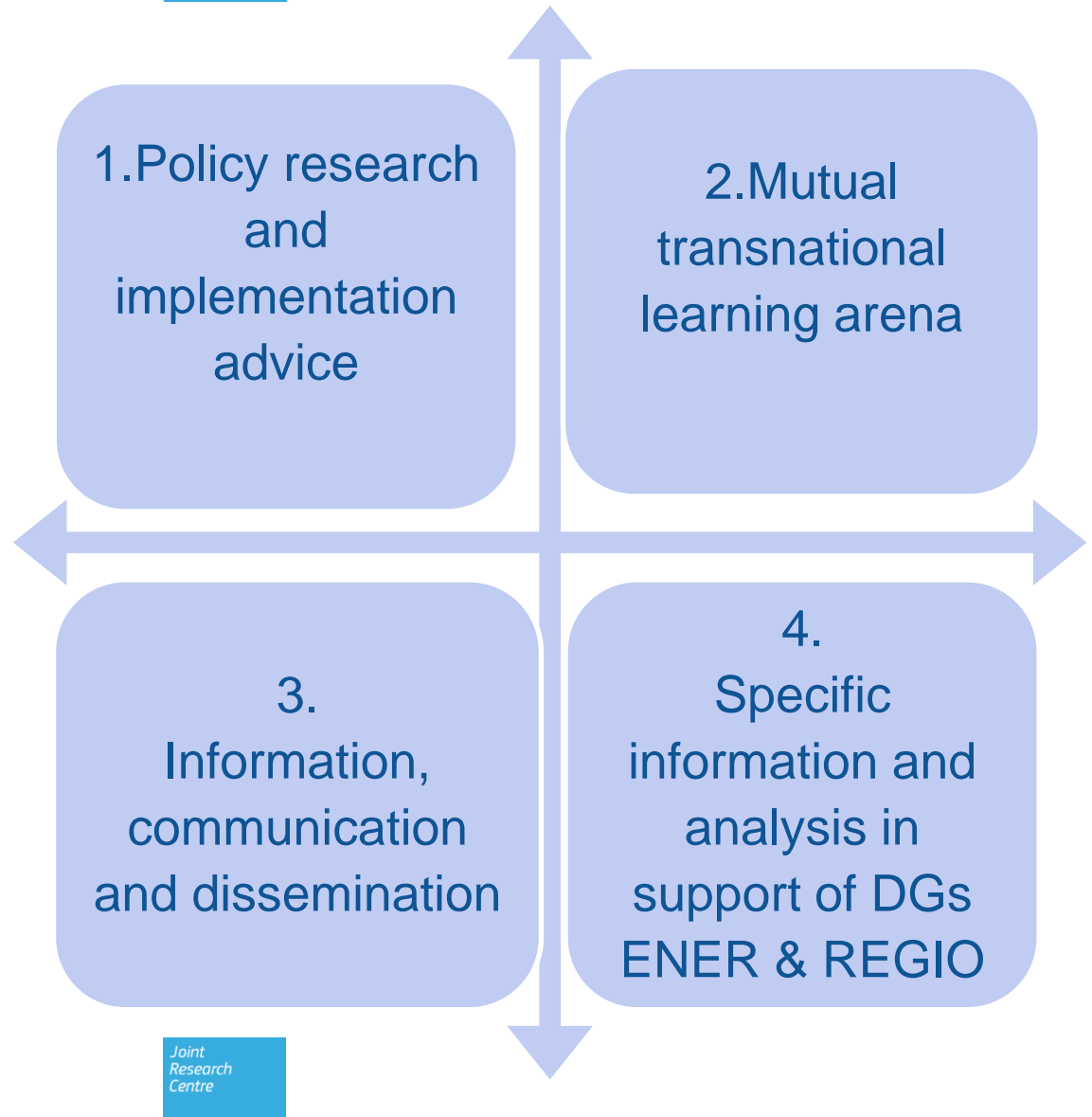
divided into

Four work packages



Objectives:

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

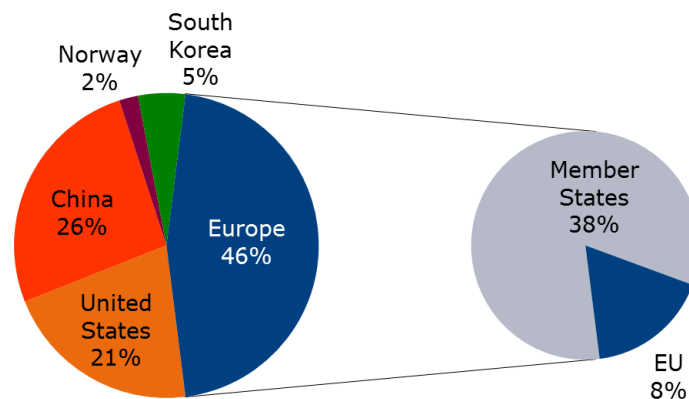


EU global leader in ocean energy technology



- EU continues to be global leader in wave and tidal technologies
- European market reached more than EUR 100 million in terms of investment
- Role of the public sector and research institutions essential to promote the creation of spin-offs and start-up companies
- Europe leads the field in ocean energy technology research
- State-of-the-art testing facilities (EMEC, WaveHub, BiMEP, Plocan)

Distribution of global funding for ocean energy (2011)

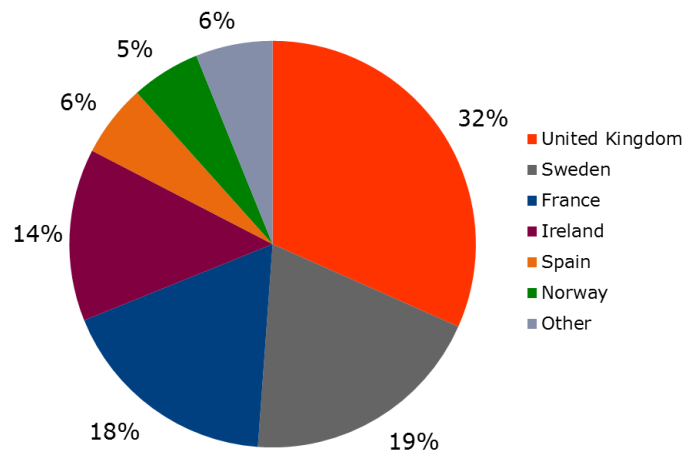


Public and corporate investment

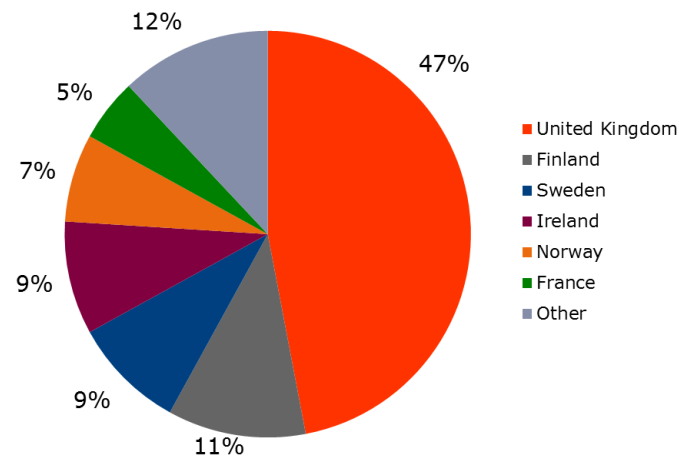


- Europe: private investment > 55 % of total European market
- Country breakdown: similar between public and private investment

Public funding in ocean energy



Corporate investment in ocean energy



Benefits of ocean energy



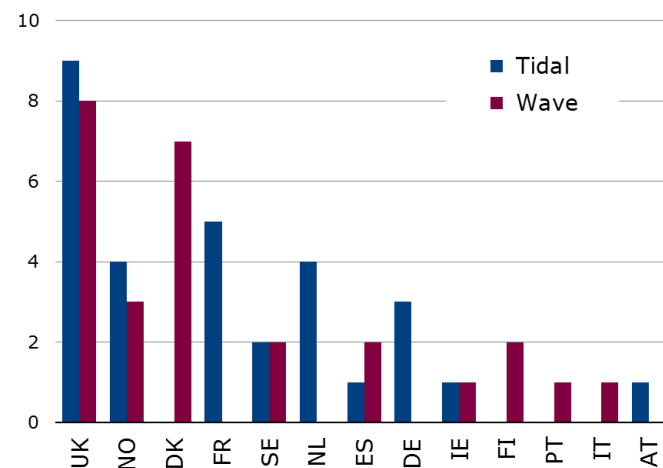
- **Economic growth:** total global market estimated at billion 535 EUR between 2010 and 2050
- **Employment:** High-quality jobs (up to 40 000 created by 2040), great potential for coastal communities
- **Energy security and decarbonisation:** contribute to domestic low-carbon energy supply, important to reach European reduction commitments (80-95% by 2050)
- **Balance electricity output:** Different to other renewables such as wind and solar, steady aggregate supply of renewable electricity
- **Public acceptance:** entirely or partially submerged, low visual impact
marine space offers potential solution

Member States/Industry

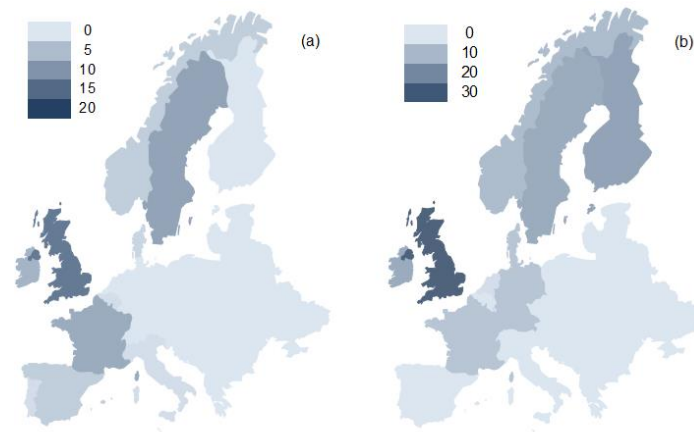


- Companies operating in the sector come from countries leading the sector (UK, Denmark, France)
- National investment: same countries are leading; Atlantic Arc countries with higher energy resource and higher investments compared to other (e.g. Mediterranean Sea)

Number of companies per country



Public and corporate investment



Regions (Eye@RIS3)



Region / Country	Description	Capability	Capability (Sub)	Target Market	Target Market (Sub)
Hamburg	Energy, climate, environmental protection & marine technology	Energy production & distribution		Energy production & distribution	Energy distribution
Basse-Normandie	Renewable marine energy generation	Energy production & distribution	Power generation/ renewable sources	Energy production & distribution	Power generation/ renewable sources
Pays de la Loire	Marine industries: naval construction, offshore construction, renewable marine energy	Energy production & distribution	Power generation/ renewable sources	Energy production & distribution	Power generation/ renewable sources
Réunion	Marine energy	Energy production & distribution	Power generation/ renewable sources	Energy production & distribution	Power generation/ renewable sources
Ireland	Marine Renewable Energy	Energy production & distribution		Energy production & distribution	
Portugal	Valorisation of marine ecosystems and links with renewable energy	Energy production & distribution	Power generation/ renewable sources	Energy production & distribution	Power generation/ renewable sources
Cornwall and Isles of Scilly	Marine energy	Energy production & distribution	Power generation/ renewable sources	Energy production & distribution	Power generation/ renewable sources
Scotland	Marine energy	Energy production & distribution	Power generation/ renewable sources	Energy production & distribution	Power generation/ renewable sources

Past Events

- High level launching event of the S3P Platform, Brussels, 27 May, 2015
- Fuel Cells & Hydrogen, Lyon, May 2015 (co-organised JU-RA)
- Blue Growth and Marine Energy, Las Palmas, October 2015
- Sustainable Construction (Heating and Cooling), Seville, December 2015 (co-organised)
- Regions and energy union, co-organised with ERRIN (European Regions Research and Innovation Network), Brussels, March 2016
Presentation of draft report on energy priorities
- Smart Specialisation (energy priorities), Ljubiliana, Slovenia, April 2016 (co-organised - back to back with S2E)

- *High Level Event: Thematic Session on Energy, Brussels, 1-2 June 2016 (co-organised JU-RA)*
 - Sustainable Construction
 - Energy applications in harsh environments (VI), etc.

Next Events

- *Energy Week: Smart Specialisation in Energy, how Europe's regions are implementing their priorities, Brussels, 16 May, 2016*
- *How to build Smart Energy Regions: Regional perspectives on energy transition, Karlsruhe, July*
- *Open Days: European Week of Regions and Cities 2016, 10-13 October 2016*

Topic of the table	'Lead' region (s)	Other interested regions/cities
1. Energy Efficiency in buildings	Andalusia (SP)	Paca (FR) Valencia (SP) Campania (IT) Trento (Province) (IT) Praga (City) (CZ)
2. Water	Flanders (BE)	ERRIN (in principle)
3. Smart Mobility	?	1 region? (UK) Catalonia (SP) Bavaria (DE) Flanders (BE) 2 regions (RO)
4. Advance Manufacturing for energy applications in harsh environments	Basque Country (SP)	13 regions (?) of the Vanguard Initiative Pomorskie (PO)
5. Heating and cooling	Castilla y León (SP)	Central Macedonia (GR) ERRIN
6. Bioenergy	Lapland (FI)	East & North Finland (7 regions?) (FI) East Norway (8 regions?) (NO) Extremadura (SP) Westerns Macedonia (GR)
7. Smart Grids	Paca (FR)	Provence – Alpes (Côte d'Azur) (FR) Northern Netherlands (Groningen) (NE) Pomorskie (PO) – Energa S.A. Lower Saxony (DE)

Thank you for your attention!

