



Strategic Energy Technologies Information System SETIS



SETIS is the Information System for the European Strategic Energy Technology (SET)-Plan. It provides support for the effective strategic planning and implementation of the European Energy Technology policy. It makes the case for new priorities and enables monitoring of the SET-Plan actions and activities, assessment of its impact on policy and the identification of corrective measures if needed.



SCIENCE MEETS POLICY

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Why SETIS?

Europe, as in the rest of the world, is faced with a huge energy and climate change challenge. Today the EU depends on fossil fuels for 80% of its energy, while by 2050, we need to reduce greenhouse gas emissions by 80%. This requires a complete reinvention of our energy system. The EU has responded to this challenge through the European Energy Technology Plan (SET-Plan).

The 2007 SET-Plan communication “Towards a low carbon future” [COM(2007) 723 final] called for “regular and reliable information and data” for effective strategic planning in the field of low-carbon strategic energy technologies. In order to support the definition of energy technology objectives and build consensus around the SET-Plan programme an “open-access information and knowledge management system” was to be established. SETIS and its dissemination tool the SETIS website is the answer to the plea for openness and transparency in the decision making process.

What does SETIS do?

SETIS performs in-depth analyses of the current status, potential and full implications of Research, Development and Demonstration (R&D, D) investments on the performance and deployment of new energy technology options and their impact on the European Energy and Climate Policy Goals. To this end, SETIS analyses across the EU-27, the current public and private R&D expenditures of the SET-Plan low carbon technology priorities, assesses low carbon technological pathways with respect to their technical performance and cost-effectiveness, their potential contribution to CO₂ emission reduction and to the EU security of supply, analyses issues and developments related to spatial planning and infrastructure, studies the transition to a low carbon economy and simulates the evolution of the European Energy Technology mix. Modelling activities are a pillar to such analyses. SETIS runs R&D energy technology scoreboards, develops and operates a portfolio of tools, mathematical models and methodologies comprising engineering modelling, GIS-based capacity deployment, infrastructure simulations and partial equilibrium models of the energy system.

The SETIS website

Where?

<http://setis.ec.europa.eu/>

What can do I find on the website?

SETIS provides validated up-to-date information and analyses on energy technologies and technology innovation through two core activities:

Capacities mapping: an assessment of the current public and private R&D expenditures across the EU-27 in the 9 low-carbon technologies identified by the SET-Plan as priority, namely: wind energy, photovoltaics, concentrating solar power, bioenergy, carbon dioxide capture and storage (CCS), smart grids, nuclear fission, hydrogen and fuel cells and nuclear fusion.

Technology mapping: it provides key information and data on the status and prospects of low-carbon technologies with respect to EU policy goals. More specifically, it addresses: technological state of the art and anticipated developments,

market and industry status and potential, barriers, needs and synergies with other sectors.

In addition:

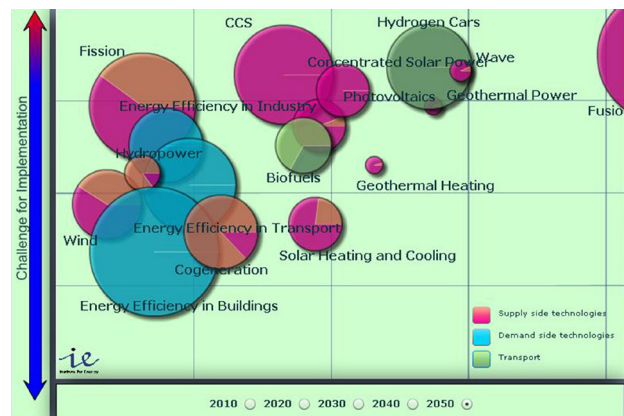
The technology maps provide essential information used to define the “Technology roadmaps” proposed for the European Industrial Initiatives (EII), building on in-depth dialogue with industry (for example through the European Technology Platforms and/or the associations representing the sector addressed by the specific EII), the Member States, the research community and the financial actors.

Consultations: SETIS provides information about the proposed initiatives, the ongoing low-carbon technology initiatives (e.g. fuel cells and hydrogen, fusion), programmes and activities and on the relevant consultations with stakeholders.

On-line tools:

The SETIS website contains on-line tools to graphically display the relative potential, estimated deployment and to forecast power generation costs of low carbon technologies.

The SETIS “bubble” graph gives a comprehensive overview of the status and potential of energy technologies in a time span that covers from 2010 to 2050, showing as well the potential leverage effect of the SET Plan.



An Energy Cost Calculator calculates the cost of energy production and CO₂ emissions (direct and indirect) in 2020 and 2030. It enables the comparative assessment of technologies for power and heat generation. For further information on the methodology and key assumptions please visit:

<http://setis.ec.europa.eu/setis/technology-map/methodology/technology>

Who is SETIS for?

SETIS is implemented to support the SET-Plan stakeholders: Member State authorities, European Technology Platforms, research organisations, research associations, industry and the financial community. It is also of interest to the general public and specifically to those interested in low-carbon energy technologies and energy technology innovation at large.

Who is behind SETIS?

SETIS is led by the European Commission, through its Joint Research Centre (JRC). JRC works in close collaboration with other Commission services and the Member States and also with European stakeholders such as the European Technology Platforms, industrial stakeholders, trade associations, the European Energy Research Alliance, the European Industrial initiatives and international organisations as well as the finance community.

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