

INFORSE-Europe Proposals on EU Strategic Energy Technology (SET) - Plan for R&D

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INFORSE-Europe - Position

- For a transition to sustainable energy we need a level playing field for existing winning technologies (energy efficiency, many renewables), inclusion of environmental costs, regulation that enables sustainable investments, and information.
- **We also need research, development, and demonstration of new technologies (R, D&D)**
- A European SET-plan could help to achieve the necessary R,D&D
- INFORSE-Europe is a network of 72 NGOs working for the promotion of sustainable energy

Promises in SET-Plan Communication (COM2007-723, 22/11-08)

- Objective to deliver **sustainable, secure and competitive** energy.
- Objective of world leadership in a **diverse portfolio of clean, efficient and low-carbon** energy technologies
- Proposes a new joint strategic planning, more effective implementation, an increase in resources, and new international cooperation.
- Interesting proposals on **open-access info** system, **financing**, technology **summit** etc.

SET-Plan Diverts Attention from Many Likely Winners

- Substantial focus on **nuclear 4th Generation**, which is not a likely winner, but expensive
- Substantial focus on **CCS** which diverts R&D resources from supply solutions and energy efficiency; should be funded by polluters
- **Too few sustainable energy solutions** covered in the proposed initiatives (wind – large turbines, solar electricity, 2. generation biofuels, smart electric grids)
- Unclear how solutions/technologies outside the initiatives will be treated?

Nuclear Generation 4

- A diverse set of known **nuclear fission technologies** such as breeder reactors, high temperature reactors, torium reactors
- The technologies have been **tested without success**, mainly in the 1980's
- Even in an optimistic scenario they **will not deliver substantial energy before 2030** → too late for a sustainable energy transition
- Likely to **divert funds from more prosperous solutions** and act as “black hole” in energy R&D funding programs

Should be **excluded** from the SET-Plan if the plan is going to achieve its objectives

INFORSE-Europe Proposals

- **Clean and sustainable use of biomass for heat and electricity.**
- **Super low-energy houses for all climates**
- **Renewable energy cooling**
- **Sustainable transport (vehicles, systems)**
- **Geothermal energy**
- **Wave and Tidal Power**
- **Energy Efficient & low-carbon industrial production**
- **Efficient supply for low-energy & RE sources**

Example: Clean & Sust. Biomass

- Key importance to realise RE and climate targets
- Need to combine energy crops with **biodiversity and other land-uses** (water cleaning, soil protection, etc.)
- Need for **sustainable production** of biomass
- Need for **clean & efficient** biomass combustion
- Need for **industrial-scale production** of high-efficient, biomass CHP, in particular below 20 MW.

Dialogues Needed for Public Acceptance

- SET-Plan will address public acceptance. Industry should take a pro-active stanceto overcome ...issues surrounding public acceptance
- BUT public acceptance comes from **a sense of ownership** of decisions by concerned parties
- SET-plan should include proposals for **better dialogues** between industries and the public on technological choices
- Improved dialogues leads to better decisions; but **might change technological choices.**

Thank you



Super Low-Energy Houses for all Climates

- Passive-houses with minimal heating demands are advancing throughout parts of Europe,
- There is a need to disseminate these solutions further and develop + disseminate solutions for all European climates.
- This must include passive cooling solutions.
- There is also a need to introduce solutions adapted to renovation of buildings.

Renewable Energy Cooling

- With the increasing warming and wealth in Southern Europe, cooling is increasing rapidly
- A number of renewable/ natural cooling solutions exists (solar cooling, night cooling with cold storage, biomass tri-generation, etc.);
- They are only applied on a very limited scale.
- There is a need to develop these solutions into standard industrial products that can be chosen by consumers and installers just as easy as normal air conditioners.

Sustainable Transport

- Biofuels can only solve a tiny part of the sustainability problems of transport (if any).
- Need to further develop sustainable transport.
- Focus on vehicles driven by electricity, hydrogen, and other energy carriers
- Focus on sustainable systems for city transport of persons and freight
- Focus on multi-modal transport solutions to reduce long-haul trucking

Geothermal Energy

- Far lower than expected from the potential.
- Need to improve the geothermal knowledge.
Need to reduce the financial risk of explorations
- Needs for R&D for emerging concepts (e.g. Enhanced Geothermal Systems, hybrid systems such as geothermal-biofuels, geothermal-solar, use of low-temperature geothermal sources),
- Need for R&D related to environmental impacts

Wave and Tidal Power

- Atlantic Ocean and the North Sea have immense potentials
- Commercialisation of the technologies needs concerted efforts for a number of years of EU countries,
- Need to combine research, development, and demonstration.

Energy Efficient & Low-Carbon Industrial Production

- Large potentials for more energy efficient industrial production: factor 4 or more possible energy efficiency gains in many industries
- Need optimisation throughout the energy chains
- Use of on-site co generation
- Use renewable energy

Energy Supply Chains

- Need for efficient energy supply chains for low-energy end-uses and renewable energy supplies,
- Need to optimise energy systems for a future with more small renewable energy inputs and lower demands,
- Includes intelligent electric grids; but is not limited to that part of the energy systems.