



Social Science and Humanities in the Energy Challenge

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EU Energy Policy and Strategy

EU Energy and energy technology policy

- 2020 framework and targets
- New 2030 energy/climate policy framework and targets
- Energy 2050 roadmap

EU Energy Technology Strategy

- Strategic Energy Technology Plan (running since 2008)
 - **EIIs – EERA - SETIS**
- COM Energy Technology and Innovation
 - **Integrated Roadmap (Feb. 2014)**
 - **Action Plan (End 2014)**



SSH in past framework programmes

A long-standing tradition of addressing SSH and related research fields in energy parts of former FP's.

Since 2002 more than 30 socio-economic related energy projects (total budget more than EUR 40 Million).

FP5: Environment and sustainable development – part energy

- Acceptability and choices
- Innovation
- Externalities
- Economy-environment-energy modelling framework
- Matching Technology Implementation potentials



SSH in past framework programmes

FP6:

- Energy foresight
- Economic and regulatory aspects of energy
- Acceptability and implementation of new energy technologies
- Energy technology transfer
- Environmental sustainability of energy technologies



SSH in past framework programmes

FP7:

- barriers to more efficient behaviour from energy end users
- security of Europe's energy supply- analysis of risks
- energy foresight network
- energy system modelling



Why energy related SSH in H2020? (1)

The role of socio-economic Sciences and Humanities as well as Responsible Research and Innovation in Horizon 2020 will be further strengthened.

Reasons:

- H2020-a **comprehensive** Research and Innovation Programme
 - Need to understand non-technological factors, which have an impact on the innovation system
 - Orientation along societal challenges calls for public engagement
 - Responsible policy making requires analysis of the impact of measures and instruments on economy, environment and society





Why energy related SSH in H2020? (2)

- Crucial role of **consumers** and other actors in the energy system
 - Awareness, attitudes and risk perception trigger consumption patterns
 - Investment decisions and (non-) acceptance influence dissemination of energy relevant technologies
 - The transition to a low carbon energy system needs public engagement.
 - We need a deeper understanding of the social impacts of energy (technology) policy measures and instruments





Why energy related SSH in H2020? (3)

Strong interest from research community (1)

- Platform of universities engaged in energy research (see presentation by Tobjoern Digernes)
- LERU position paper
 - understanding the systemic economic, psychological and cultural issues triggering market and individual behaviour
 - understanding the economics and governance of sustainable energy markets
 - understanding the historical aspects of energy security
 - understanding the forces that drive public opinion and the informational and educational role of arts and the media
 - Education research to successfully train teachers





Why energy related SSH in H2020? (4)

Strong interest from research community (2)

- **European Energy Research Alliance – Joint Programme on Economical, Environment and Social Impacts (JP e3s)**
 - Analysis of innovation support for low-carbon technologies
 - Public perception and engagement
 - Life Cycle Approach for evaluating the sustainability performance of energy technologies
 - Energy models for a system assessment of European low-carbon energy futures: markets, environmental and economic impacts
 - Sustainable low-carbon platform





Why energy related SSH in H2020? (5)

High on the political agenda (1)

European Group on Ethics in Science and New Technologies:
An ethical framework for assessing research, production and use of energy

- Follow up of a request by President Barroso to contribute to the discussion on the benefits and limitations of nuclear fission in a low carbon economy.
- Covers all technologies
- Gives concrete recommendations, a few concerning energy research
- Discussion during a dedicated socio-economic workshop at the European Sustainable energy week





Why energy related SSH in H2020? (6)

High on the political agenda (2)

European Economic and Social Committee:

*Establishment of a **European Energy Dialogue***

- Europeanization of national energy debates
- Definition of minimum criteria for such energy dialogues
- Strengthening participation of civil society in shaping energy policy
- Call for inclusion of related research and support actions in H2020





Energy WP 2014-2015

3 Focus areas

- a) **Energy Efficiency (EE)**
- b) **Competitive Low Carbon Energy (LCE)**
- c) **Smart Cities and Communities (SCC)**

And "Other actions"





Energy related SSH in H2020 – possible content in WP 2014-2015

SSH and Responsible Research and Innovation are covered by

a) **Embedding** related aspects in individual projects, where appropriate.

b) **Dedicated socioeconomic topics:**

- The human factor in the energy system
- Modelling and analysing the energy system, its transformation and impacts
- Socioeconomic research on energy efficiency





Energy related SSH in H2020 – possible content in WP 2014-2015

- **The human factor in the energy system**
 - awareness, perceptions, attitudes to technologies and to transition pathways to a low carbon economy
 - Public engagement, measures to launch and stimulate a dialogue with the public
 - Education and training networks (follow up of SET-Plan Education and Training Initiative)
- **Modelling and analysing the energy system, its transformation and impacts**
 - Comparative assessment of the impacts and the sustainability performance of technologies and of transformation paths towards a sustainable energy system
 - Modelling the impacts of technological development and innovation on the energy system and its dynamics



Energy related SSH in H2020 – possible content in WP 2014-2015

- Socioeconomic research on energy efficiency
 - Foresight socio-economic activities to support the debate on the development and monitoring of energy efficiency strategies
 - social, economic, cultural and educational barriers
 - development of micro-economic analysis of the updated energy efficiency measures.
- In addition relevant studies and tenders to support policy shaping and implementation





Energy related SSH in H2020 – implementation

- Support to SET Plan implementation
- 2 year work programme
- Challenge oriented approach – no narrow description of topics
- Implementation by executive agencies
- First call publication end 2013





Thank you for your attention

