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)
  - EII - 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”

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

• 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

- 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