

What Do People Think?

INSTITUTE OF TECHNOLOGY-ASSESSMENT

Participatory Future Search & Assessment Conference on the Austrian Energy Research Agenda

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Introduction

This poster reports on experiences using a participative technology assessment (pTA) approach to discuss and evaluate research and development goals for sustainable energy technology in Austria. In a two-day Future Search & Assessment conference in November 2007, 36 laypeople – selected per representative quota sampling – discussed the future of energy research in Austria.

Focus of the Project:

Energy Research Agenda in Austria

The new research programme "Energy of the Future" was launched in 2007. It aims at more energy efficiency, the improvement and development of renewable energy technologies and the design of smart energy networks. The programme is subdivided into seven research areas, whereof one will focus on energy and consumer.

Future Search & Assessment Conference

- 1 Preparatory workshop to select relevant topics to be addressed within the main conference
- 2 Two-day future search & assessment conference with 36 laypeople and seven external experts concerning three main points:
 - (a) discussion of relevant aspects underlying the political targets for the future of energy research,
 - (b) assessment of five specific energy and end-user related research topics in detail; and
 - (c) presentation of main results and participants' experiences within a conference for stakeholders and energy experts on behalf of the programme initiators.
- 3 Follow up ex-post survey of the participants to track potential effects as a consequence of the citizens' conference (to be realised in March 2008).

Future Search & Assessment Conference

Socio-demographic attribute	Target sample	Sample at the conference
Sex	50 % female	52,8 %
	50 % male	47,2 %
Age	50 % 18 to 40	42,9 %
	50 % older than 40 years	57,1 %
Education	50 % maximum apprenticeship	28,6 %
	50 % professional school, secondary school and all higher education as e.g. university	71,4 %
Professional status	50 % employed	62,8 %
	50 % not employed (household, retirement, unemployed)	37,2 %
Region	40 % East (Vienna, Lower Austria, Burgenland)	41,6 %
	40 % Central (Styria, Carinthia, Upper Austria)	27,8 %
	20 % West (Salzburg, Tyrol, Vorarlberg)	30,6 %



Discussed Research Topics

- Micro-CHP
- New system solutions and avoidance strategies
- Smart metering and „intelligent“ end-user equipment (IRON)
- Innovative contracting and leasing models
- Visualization and monitoring of energy use

Selected Research-Orientated Recommendations by Laypeople

Research topics	Recommendations by laypeople
Micro-CHP	<ul style="list-style-type: none"> Micro-CHP should support the energy-independence of households Devices have to be affordable in purchase and maintenance Use of regionally available, renewable resources is important Technology should be improved as part of a larger system (e.g. in accordance with available renewable fuels) Stirling engine and fuel cell technology to be used on the household-level are a high priority Research should aim at highest possible energy efficiency and the ability for effective power-management (micro-CHP as part of virtual plant)
New system solutions and avoidance strategies	<ul style="list-style-type: none"> Focus on saving resources and foster awareness for resources R&D should lead to concrete outcomes (e.g. sponsorship for ecological housing) The research programme should be aware that involved social players (e.g. architects, planners, handcrafters, users) represent different perspectives which should be included Results of research should be actively disseminated Social aspects should be taken into account
Smart metering and „intelligent“ end-user equipment	<ul style="list-style-type: none"> Presented information should be simple and plain (in order to support changes in attitude and raising awareness for natural resources) Data security should be guaranteed (concerning recording, interpretation and transmission) Households should profit in financial terms (e.g. by automatic selection of lowest tariff) All relevant players of the energy industry should support the system
Innovative contracting and leasing models	<ul style="list-style-type: none"> Offer is attractive for users when expertise of contractor is guaranteed Information and recommendations by contractors should be neutral (non-product related) Loss of autonomy should be minimized, contractor should find constructive ways to deal with loss of control and autonomy Provisions of a contract should be highly flexible Overall energy savings should be guaranteed
Visualization and monitoring of energy use	<ul style="list-style-type: none"> Awareness raising should start as soon as possible (e.g. programmes for different age-groups, cooperation with communities) Usability of monitoring devices is very important (e.g. for the elderly) Monitoring devices should enable households to remain independent from energy suppliers Information on energy consumption should be combined with recommendations Connection to social policy issues should be considered

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Recommendations by Laypeople

- Strong commitment to existing strategies and programmes: aims like energy efficiency, widespread use of renewable forms of energy, integrated solutions etc. largely supported
- Requirements derived from more individual orientations: usability and privacy issues very important
- Social policy issues should be taken into account more seriously; e.g. affordable end-user products and guaranteed energy savings

Conclusions

- Laypeople clearly support the idea of mission-oriented innovation policy: Research and development in the energy sector should be lead directly to solutions to mitigate climate change.
- Citizens are very aware that problems of the future cannot be solved by technological innovation alone: New technology must be embedded in wider socio-political contexts such as changed price relations and new consumption patterns.
- Laypeople support the principal orientation of the Austrian research agenda. However, energy policy should seriously consider social issues as an integrated part („efficiency for the poor“).



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