BEST
Bioenergy and
Sustainable Technologies

Social Sciences and Humanities (SSH) at BEST

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AREA 3 - Sustainable Supply and Value Cycles

Introduction

Considering people and society when doing research has become increasingly important. If people do not use and society does not accept and see the benefit of (new) technologies, research and development are obsolet. Therefore, BEST addresses these topics at individual level, i.e. end-users and at societal level. Here, we present selected results from **3 projects** in which BEST covered societal aspects.

CLARA[1] – Risks Related to Society

Objective: Analyse risks related to society when big plants like in the CLARA approach are operated

Methods: Literature search; stakeholder interviews; online stakeholder workshops

Selected Results: 15 risk clusters related to society could be identified. These were related to the areas (I) socio-economic factors, (II) political and legal framework and (III) social acceptance (including market acceptance).

Risks identified and grouped in 15 clusters	
1. Dependencies in supply chains	9. Social standing and political influence
2. Social sustainability risks	10. Changes in regional/local structures
3. Socially undesirable distribution	11. Lack of participation in the decision process
4. Uncertainties (political, legal)	12. NIMBY (Not in my backyard)
5. Economic profitability without subsidies	13. End Users acceptance
6. Plant approval procedures	14. Constant Feedstock Supply
7. Concerns about negative impacts on environment	15. Bottlenecks in plant operation (e.g. pelletization process)
8. Knowledge gap in society	

In particular, the different aspects of social acceptance pose risks with high likelihood of occurrence and severity. The so-called NIMBY (not in my backyard) effect was also observed.

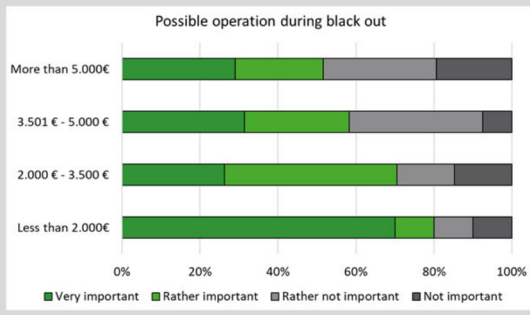
[1]Chemical Looping Gasification for Sustainable Production of Biofuels

MotivA[2] – End-Users' view

Objective: Investigate motives of end-user decisions for a specific RESS (Residential Energy Supply System)

Methods: Stakeholder interviews; quantitative end-user survey in AT

Selected Results: A low monthly net household income significantly increases the importance of little space requirement, but also of enabling an autonomous life and the possibility of operating the RESS during a black out.



Regarding clustered motives, environmental aspects were considered most important by the respondents, even more by women. A paper on that study has been published in June 2023 - follow the QR Code.

[2]Motive Analysis Regarding the Choice of Residential Energy Supply Systems with a Focus on Gender and Intersecting Aspects

ETIP Bioenergy[3] – "Bioenergierat"

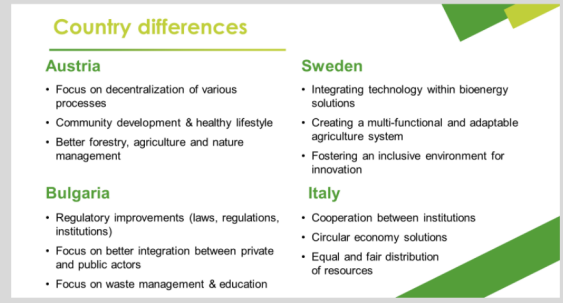
Objective: Maximizing the societal benefits of successful R&I activities in the field of renewable fuels and bioenergy, in addressing key issues related to sustainability, just transition, and social innovation.

Methods: Citizen Panels in AT, BG, IT and SE. 20 - 30 citizens per country elaborated 10 common visions on bioenergy with a time horizon of 2055. Referring to the Austrian "Klimarat" the citizen panel was named "Bioenergierat" for Austria as both involve citizens to create a climate friendlier future.

Selected Results: The main themes elaborated by the citizens of the four countries in their visions were:

- Satisfied with less
- Circular economy
- Sustainability in small communities
- Cooperation at the core of the energy transition
- Awareness through education

Differences that could be identified between the countries are presented below.



The visions were discussed with bioenergy experts in two workshops and policy recommendations were generated. Examples for recommendations are:

- Promote education on bioenergy and biomass in schools
- Involve citizens in public dialogue prior to starting new projects

[3] European Technology and Innovation Platform Bioenergy

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