

Innovating Decision Aiding Social Acceptability of Hydrogen Technology

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Outline

- 1 The General Problem
- 2 The Specific Problem
- 3 Innovations
- 4 Lessons Learned

Policy Design

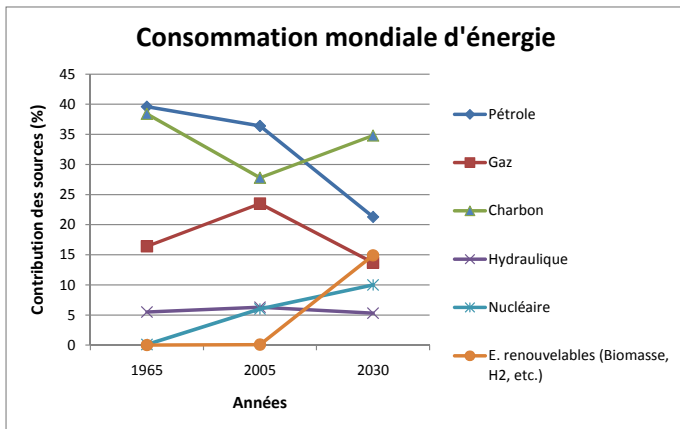
- Use of Public Resources
- Participation
- Time Horizon
- Deliberation
- Legitimation and accountability

General Claim

Our basic hypothesis is that:

we need a dedicated comprehensive methodology and adequate tools in order to support the design, the implementation and the assessment of public policies

Energy Consumption



The Problem Situation

Society Challenge

Energy production, distribution and consumption is one among the most important social challenges in the near and remote future. Hydrogen is a valid alternative in terms of energy vector, besides electricity and heat.

Issues

Question 1

Will our societies accept a massive deployment of hydrogen as energy vector in the future?

Question 2

On what social acceptability of hydrogen will depend? Which will be the concerns the society may present?

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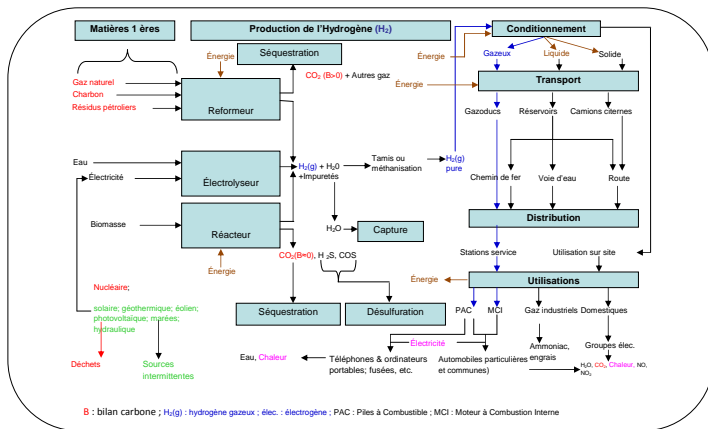
Problems

- Who is the client?
- What is the concern about exactly?
- What hydrogen technology deployment exactly implies?
- What social acceptability means?

Decision Aiding Process

- The Problem Situation
- The Problem Formulation
- The Evaluation Model(s)
- Recommendations

Hydrogen Chain



Who is concerned?

- 1 The Industry (production, storage and distribution)
- 2 Political, Society and Administration organisations
- 3 The Public Opinion at large and specifically

Tools used

- Focus Groups and Survey
- Cognitive Maps
- Value Trees
- Scenario Construction
- Rating methods

Cognitive Map of a Focus Group

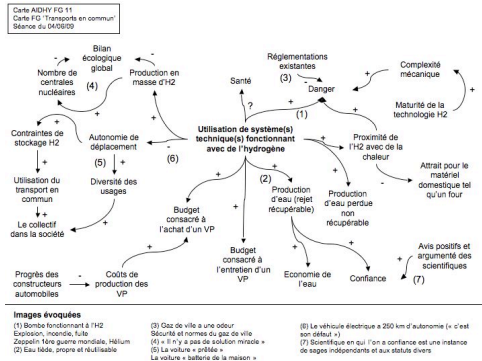
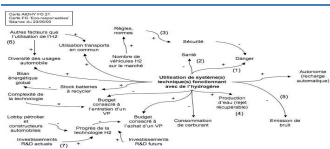
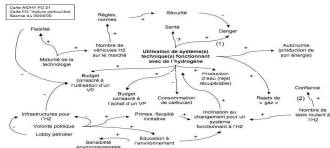
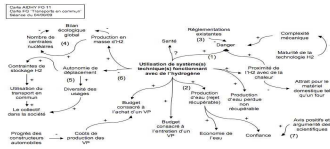


Figure 4: Carte causale élaborée à partir des échanges du focus groupe TC du 04/06/09

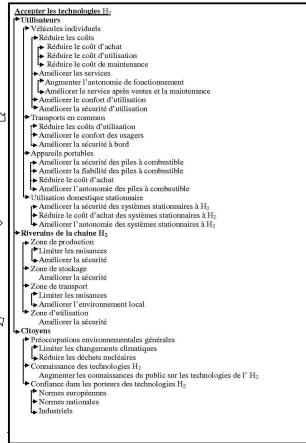
Value Trees

Cartes cognitives (Focus Groups)

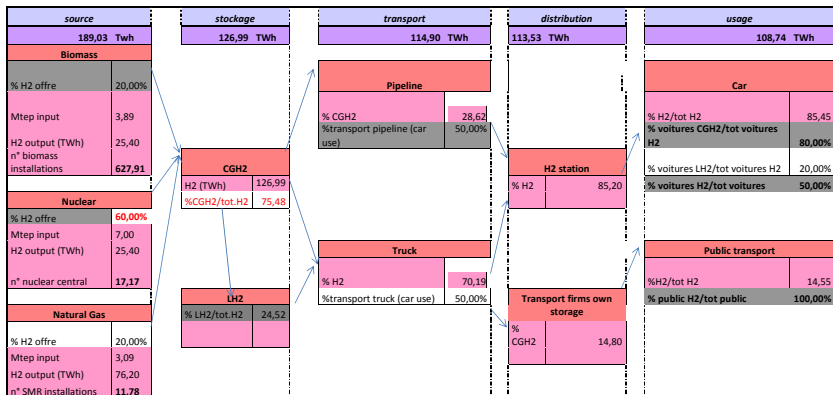


D'après Damart [Damart, 2009]

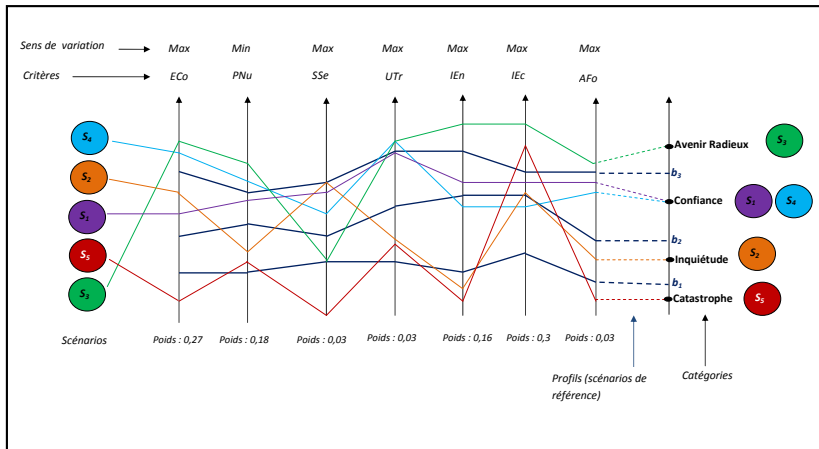
Arbre de valeurs du grand public



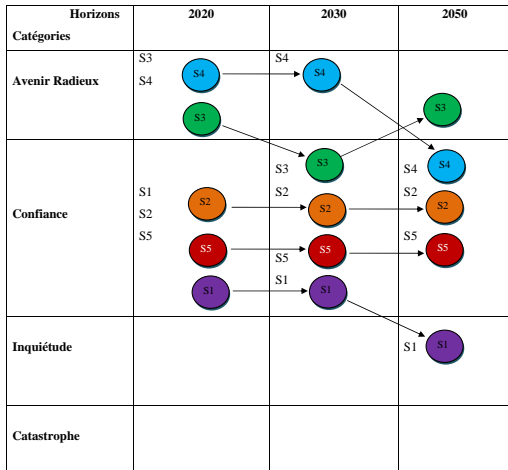
Scenarios



Scenario Ratings



Scenario Ratings 2



Controversies 1

- Hydrogen production
- Hydrogen use
- Hydrogen storage

Controversies 2

- Who participates?
- What else could happen in terms of energy scenarios?
- At that time horizon are we sure that our values matter?

Conclusions

- A structured analysis allow to show where the concerns stand and for whom.
- Scenario planning allows to emphasise robustness issues in decision support.
- Innovative policies need, among others, to be innovative supported ...

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