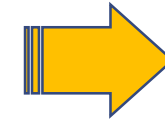# Contents

1. **Context of our study**

2. **Acceptability of renewable energy projects**

    The problem

3. **The Business Model Lens for Acceptability**

    Our stance to analyze Acceptability

4. **Reviewing important factors of Acceptability**

5. **Preliminary results**

Climate change

Increasing Energy demand

Scarcity of fossil fuels
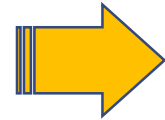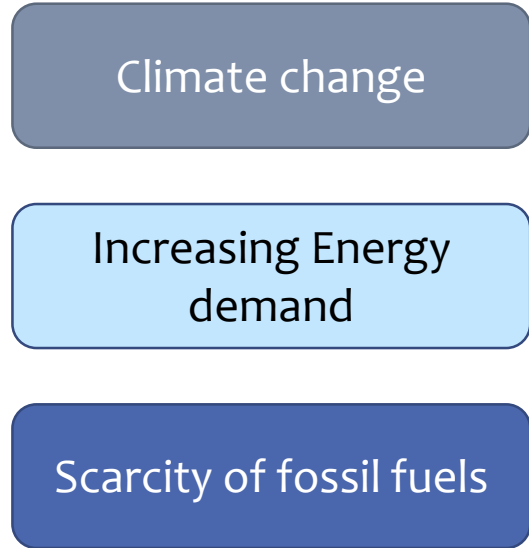
Transition to a sustainable energy

Significant changes:
❑ Generation
❑ Transmission
❑ Consumption

Slow progress on implementing Renewable Energy Technologies (RET)

Moula et al. (2013)

3

Implementation of Renewable Energy Technologies for transition

Bourcet (2020)

Two significant barriers:

✓ Financing

✓ **Acceptance**

The **lack of social support** from local stakeholders

Resistance has been much researched for over a decade

4

ENERGY POLICY

Energy Policy 35 (2007) 2683–2691

Social acceptance of renewable energy innovation:
An introduction to the concept

Rolf Wüstenhagen[a,*], Maarten Wolsink[b], Mary Jean Bürer[a]

The concept was formalized:

Research on the social acceptance of renewable energy innovation or renewable energy technologies **(RET)**.

Social Acceptance

Personal (Age, gender, class, income)

Social-psychological (Knowledge, experience, perceived impacts, environmental and political beliefs, place attachment)

Contextual (Technology type and scale, institutional structure and spatial context)

It is not clearly understood what aspects of Energy projects

Technology – Values – Resources – Stakeholders – Activities – Procedures – Trust

?

are causing the acceptability or the opposition to renewable energy projects

> A lack of perspective helping to have an
>
> **overarching comprehension of what is important**
>
> to facilitate the social acceptability of energy projects is needed.

The business model is a strategic tool articulating **the logic a complex system of stakeholders employ** to produce not only **economic values but environmental and social.**

Value Proposition	**Value Delivery**	**Value Capture**

In theory

Implemented

- Activities among stakeholders

- Benefits or advantages produced from activities

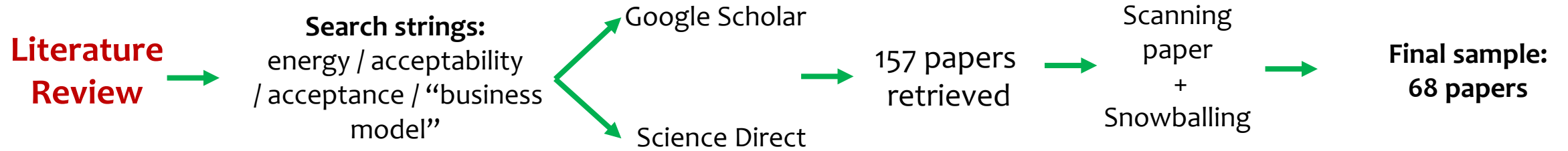- Architecture of revenues, costs and profits linked to the company delivering values
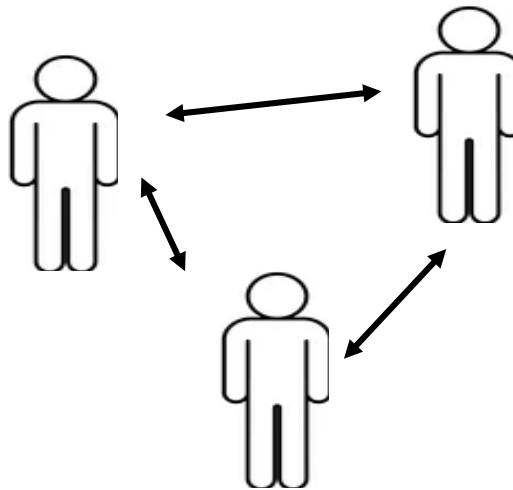
How energy communities in France:

i) Increase renewable energy capacity

ii) Mobilize private capital

iii) Provide flexibility for the electricity system

iv) Empower consumers

Teece (2010)

Vernay (2023)

Literature Review → Search strings: energy / acceptability / acceptance / "business model" → Google Scholar / Science Direct → 157 papers retrieved → Scanning paper + Snowballing → Final sample: 68 papers

Inductive A... ...**ext Mining**

Reading and
text captu...
definition...

...tifying important
...eptability factors

	Search strings in Google Scholar and Science Direct
1	energy AND acceptability AND "business model"
2	energy AND acceptance AND "business model"
3	hydrogen AND acceptability AND "business model"
4	biomethane AND acceptability AND "business model"
5	"acceptability measurement" AND energy
6	acceptability OR acceptance OR measurement OR analysis
7	acceptability AND analysis AND business
8	"acceptability OR acceptance analysis" AND business

Table 2. Description of search strings for gathering papers from Google Scholar and Science Direct databases.

Acceptability / Acceptance

Elements in a sequence
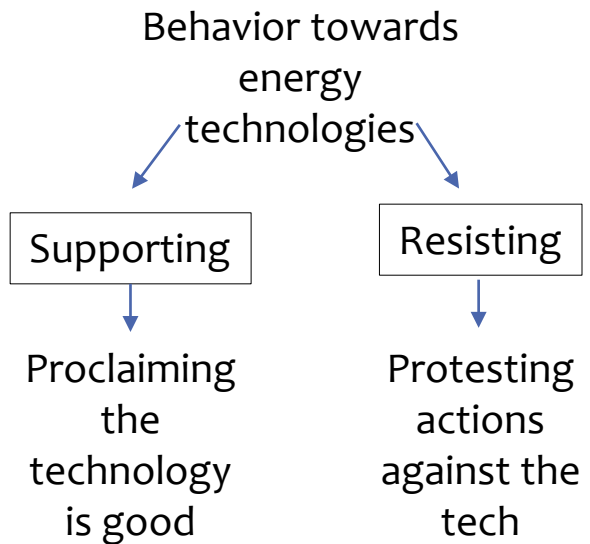
Perceptions (B,C,R)

Preserving

Acceptability → Acceptance → Adoption

Opinions

* Attitude (an evaluative judgement) towards new technologies

Behavior towards energy technologies

Long lasting behavior

To support

Attitudes

Supporting → Proclaiming the technology is good

Resisting → Protesting actions against the tech

a) Technology implementation

Huijts (2012)

Pigeon et al. (2021) ➡ + 70 factors of acceptability acceptance

Difficult to define the most important/frequent for our Project?

- Information,
- Benefits,
- Participation,
- Knowledge,
- Justice, and
- Trust.

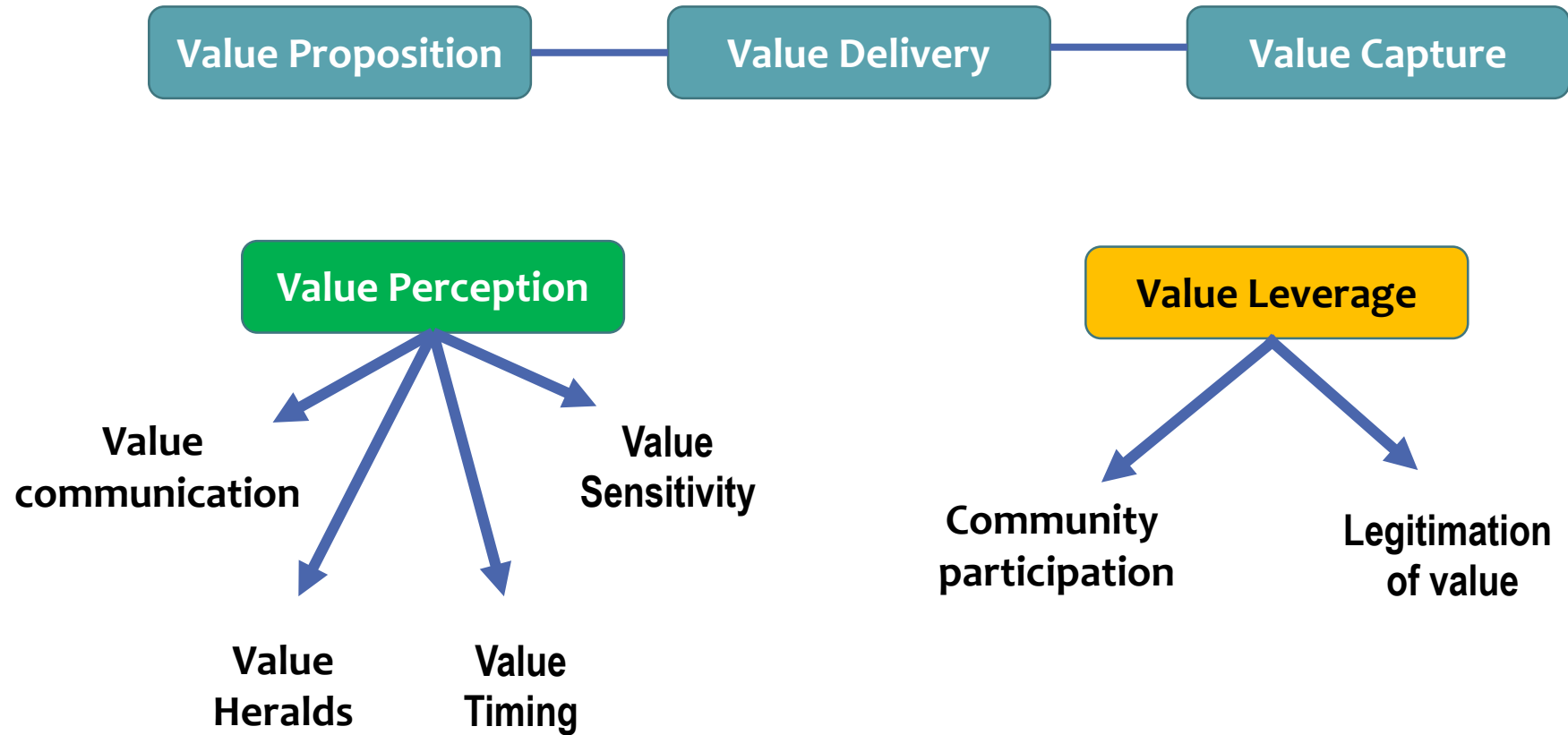**Figure 1.** Acceptability factors summary from a text mining analysis

		What acceptability literature says	Impact on the distinctive characteristic of the BM
Value Proposition		- Several actors have a perception/ attitude/ about projects that need a license to operate. - Value associated with a project depends on the type of technology, the consequences on nature and the environment, and health and safety hazards. Potential positive effect influence risk acceptability. - Need to develop value inclusive-design	Need to consider a plurality of value (both direct and indirect stakeholders) Defining the perimeter is a strategic decision (whose value matters?)
		-Public perception, knowledge about risks or perceived usefulness, and misinformation depend on the perceived legitimacy of the technology and public trust in the energy sector. → This reveals the need to organize information campaigns and to familiarise people with the technology. -Personal values are also an important determining factor for acceptability. People fear detrimental effects on human health, biodiversity loss, landscape degradation, and negative impacts on tourism and property prices. -Employment, age, and level of education can influence acceptability.	It is both about the value created and value destroyed (when the value destroyed hides value creation – the objective is to reverse this).
		Policymakers at local, regional, and national levels impose legal constraints on projects.	The perimeter (whose value to include) may be both chosen and imposed upon; it may also change during the lifetime of the project.
		People expect the conservation of nature and local community promotion. Local stakeholders may have demands regarding the scale of the project.	Value has a spatial dimension (locally embedded)
Value delivery		The need for procedural justice via community participation from the start of the project is important to create more widely shared value conceptualizations and enable embedding in design. It is useful to create a space for constructive conflicts of value and where public risks perception can be acknowledged and addressed (providing information is not a substitute for addressing concerns and decisions needs to be correctable if information changes. Participative tools may help. All stakeholders should have a voice (a risk that opponents have a stronger voice than those in favor, especially if they are well organized).	Important activities in the value chain are before obtaining the license to operate and imply involving/giving a voice to the local community. The focal firms need to tone value sensitivity.
		Perception of a few organized actors can block a project even if the local community at large welcomes it.	The focal firm needs to build the capacity to counteract small groups of actors that can harm projects.
		Need to build trust and good relations with the community. In a participative planning context, the help of a neutral mediator or even supportive intermediaries can help.	Necessary to identify bottleneck actors that can act as trustees and help with value transmission
		Need for transparent communication in the life cycle of the project about project risks, complexity, and benefits.	Communication capabilities are among the core capabilities needed
		Local authorities facilitate different things for supporting projects (collaborative planning, consultation, and improving the collaboration of local citizens). They can also contribute to a sense of pride regarding renewable energy projects by local participants.	Local authorities are bottleneck actors

Table 3. Specificities of a Business Model for Acceptability of energy projects.

5. The Business Model for Acceptability' draft

Value Proposition — Value Delivery — Value Capture

Value Perception
- Value communication
- Value Heralds
- Value Timing
- Value Sensitivity

Value Leverage
- Community participation
- Legitimation of value

Value Perception	Value Leverage
Value perception implies: How to better understand values desired by communities and inform advantages and implications of energy projects?	Value leverage implies: How value proposal of energy projects can be improved or supported to better cover or avoid some value conflicts?