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**Building a Social
Acceptance Model for 6G**
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6G4 SOCIETY



HEXA-X-II

Ensuring 6G Social Acceptance

6 November 2024

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Joint Online Webinar



Co-funded by
the European Union

Project funded by



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER
State Secretariat for Education,
Research and Innovation SERI

6GSNS

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Towards a sustainable and accepted 6G for Society
Grant Agreement no 101139070

Hexa-X-II

European level 6G Flagship project
Grant Agreement no 101095759

Acceptance: why it matters?

- **Increasing attention** at policy level on understanding variables and dynamics influencing and shaping social acceptance of emerging technologies.
- Two reasons why acceptance is interesting in the context of 6G:
 - 6G development **is driven** by attention to integrating **sustainability values**
 - issues of **public acceptance** / global waves of discontent accompanied the rollout of 5G.



Traditional approaches to studying acceptance

- A number of models have studied technologies acceptance.
- Aim: understand and predict how users come to accept and use new technologies.
- Limitations: focus on:
 - Individual use and interaction with technology (perceived usefulness, perceived ease of use, performance expectancy, effort expectancy...)
 - technology features; functionality; capabilities; how and whether it functions;

Acceptance ≠ Acceptability

Acceptance:

- **Definition:** The empirical state of affairs regarding how a technology is received or tolerated by a community.
- **Focus:** Actual adoption and use of technology in real-world contexts.
- **Methodology:** Typically involves empirical observation and data collection.

Acceptability:

- **Definition:** A normative judgment of how technology ought to be.
- **Focus:** Ethical considerations and moral issues emerging from technology introduction.
- **Methodology:** Often involves anticipatory analysis and ethical reflection.

What aspects are missing

wider, societal level (societal groups)

- Public understanding (level of public awareness; the way technology is understood)
- Public concerns and perception of risks
- Trust in governance and other key stakeholders
- Attitude formation towards technology

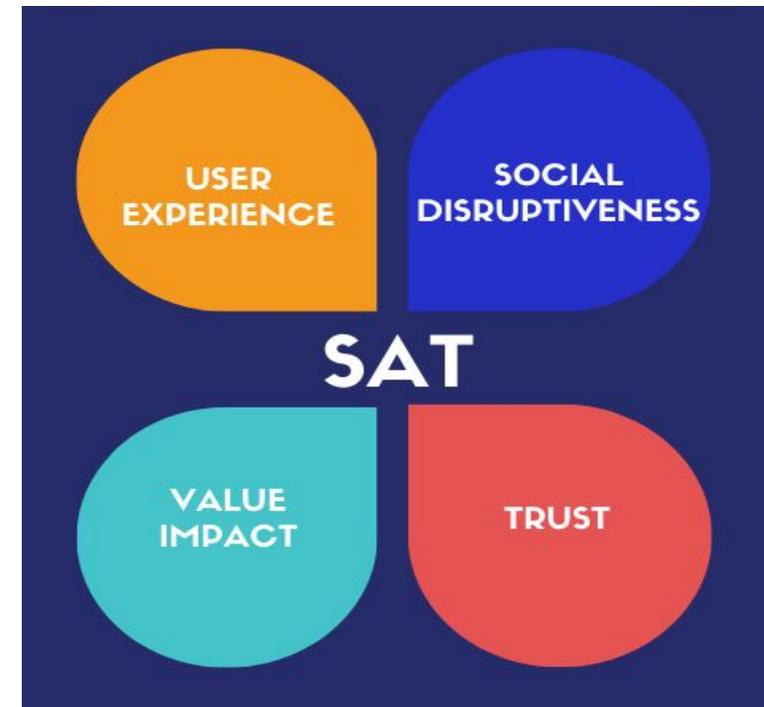
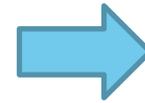
dependencies between societal acceptance and:

- wider societal **impact / implications** on societies
- **alignment/conflict** with **value** hierarchy and priorities of different social groups

Social Acceptance of Technology

- beyond individual user acceptance
- technology *within* society and *in interaction with* society
 - process by which a technological innovation is embraced or rejected by society.
 - broader societal attitudes, values and norms, as well as impact of technology on social structures and relationships.

- **4 facet of the technology-society relations**, relevant for social acceptance.



Social Disruptiveness / Impact

- Identify underserved impacts at early stages to intervene (design, policy, communication level)
- *societal norms and operations, relationships, organizational structures, institutions, public policies, and the physical environment; epistemic paradigms, foundational concepts, values, moral norms, and the nature of human cognition and experience.*

6G Context

- Potential to alter communication patterns fundamentally.
- Likely to reshape work dynamics
- Blur lines between physical and virtual presence.
- May significantly impact privacy norms and data protection practices.
- Could exacerbate or mitigate digital divides and social inequalities.

To evaluate the relation between a technology or innovation, and social values, to identify alignment or potential conflicts or tensions.

Key Questions:

- What values are **embedded** or promoted by the technology? Elicit.
- What values are **important for others** (users, stakeholders, social groups)
- Are technology values **aligned** with societal norms and different stakeholder values?
- Are there **tensions** or **conflicts** with the values of certain groups or communities?
- Is the project working **towards** these values?
- What values should be **embedded** to make the technology **acceptable**?

- User's emotions, expectations, and satisfaction when interacting with a technology.
- Reactions to narratives or demonstrations of the technology.
- Experience with demos or prototypes (when available).

6G Challenges:

- Difficulty in direct UX assessment due to low Technology Readiness Level (TRL).
- Need for alternative approaches, such as analyzing expectations in terms of perceived benefits and concerns.

- Affects adoption rates, public opinion, and overall acceptance
- Influence on how individuals and societies **interact** with new technological innovations
- Relates to the **governance** level of research and innovation / relationships among stakeholders
- Is connected to the way stakeholders **communicate** and **understand** each others.
- Connection with **impact**: when stakeholders perceive that a technology negatively affects their surrounding environment, it erodes trust in that technology
- Connection with **value**: when a technology is seen as congruent with societal expectations, norms, ethical standards, and cultural values, it is more likely to be trusted.

Stakeholder landscape

Identify the stakeholder universe around a specific challenge using as criteria:

- **Power:** Ability to Influence the project or technology development.
- **Legitimacy:** Recognized right or claim to be involved.
- **Urgency:** Time-sensitive or critical nature of the stakeholder's claim.
- **Potential harm:** Possible negative impacts on the stakeholder.
- Emphasizes the involvement of **passive** stakeholders who may be **impacted** but lack direct influence.
- Ensures representation of **marginalized** or **vulnerable** groups in the assessment process.

Objectives of Social Acceptance Research

- Ensure public trust and engagement in innovation development.
- Address ethical, cultural, and social concerns proactively.
- Foster inclusive decision-making processes.
- Enhance the legitimacy and impact of research outcomes.
- Promote sustainable technological progress.

Policy and Design Implications:

Responsible Innovation and design. considerations

- Aligning 6G development with societal values and ethical standards.
- Consideration of potential social and ethical impacts.
- Insights for value-sensitive design and approaches.
- User-centric development that considers diverse needs and perspectives.

Policy Recommendations

- Informs decision-making at organizational, national, and EU-wide levels.
- Addresses regulatory needs, privacy protection, and equitable access to 6G technologies.

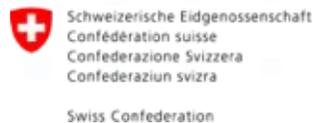
Trust-building Strategies

- Guidance on fostering public trust through transparency and stakeholder engagement.
- Emphasizes the importance of clear communication about 6G capabilities, limitations, and potential risks.

THANK YOU



Project funded by



Federal Department of Economic Affairs,
Education and Research EAER
State Secretariat for Education,
Research and Innovation SERI

Hexa-X-II project has received funding from the Smart Networks and Services Joint Undertaking (SNS JU) under the European Union's Horizon Europe research and innovation programme under Grant Agreement No 101095759.

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The 6G4Society project received funding from the European Union's Horizon Europe Research and Innovation Programme under Grant Agreement No 101139070.