

6G4SOCIETY

Towards a sustainable and accepted 6G for Society

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6G4Society

Towards a sustainable and accepted 6G for Society

Grant Agreement no 101139070

6G4SOCIETY focuses on the relationship between 6G and **Society**, and in particular on the aspects of **values**, and of **acceptance**.

A circular icon containing the letters "CSA" in a bold, blue font.

CSA

Coordination and Support Action



January 2024 - December 2025
(24 months)



6 organisations, 6 countries



999 625 €



Funded by SNS JU

A **bridge** between the **public** side and the **expert** side:

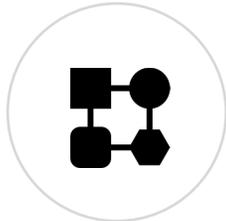
- Exploring the notion of **acceptance** in 6G
- Ensuring that **a correct representation** of 6G impact is conveyed to the public
- Ensuring that **public perception and needs** are conveyed to industry.

Planned outcomes (methodology)

Work with
SNS
community



Sustainability indicators and Key Value Indicators (KVI) frameworks, towards larger public validation and downstream exploitation at international and standardisation levels



Technology acceptance model or roadmap building on outputs of relevant projects

Planned outcomes (information and policy)

For non-specialised audience



Explanatory material for non-experts, fostering a better understanding of 6G



General public information events and publications for non-specialised audience

For industry / specialised audience



Summary of stakeholder positions on the impact of 6G technologies on society and the expected improvements on citizens' life



Advice for relevant stakeholders on how to reflect EU policy objectives and EU legislation and guidance in SNS technology solutions for future networks' development and services



Acceptability or Acceptance?

Acceptability

- Assesses to which extent a technology aligns with a set of ethical values, recognised by society
- values coming from the normative level are transposed into technical requirements and specifications, in the design and development process (value-based design)
- can be steered.
- can help in favouring social acceptance, ensuring to bring all the ethics «must have»
- not a guarantee to achieve social acceptance

Acceptance

- Subjective, positive reaction (support, adoption, positive perception) of a group to a technological innovation.
- Independent from technology intrinsic characteristics
- Eludes our capacity to be “engineered”. Cannot be created.
- Acceptance may exist also in lack of acceptability.

- **A wider look**, beyond traditional TAMs models
focused on UX; adoption propensity; concrete solutions)
- **Acknowledging the importance of other factors**
social, psychological, and value/ethical sphere.
- **Better understanding** how acceptance works in the 6G socio-technical context
analyzing the variables influencing social acceptance
- **Explore the dynamics among actors** in the specific socio-technical system
power relations; narratives; values systems; priorities of different groups; communication
- **Building a shared awareness** about these dynamics amongst stakeholders is key
 - to influence the R&D process (human-centred, co-design) or to tune communication (towards trust creation)

What controversies tell us

What did 5G generate in terms of social response? low level of acceptance; concerns for implications and societal impact; opposition, rejection, and ban.

Controversy analysis to better understand acceptance:

- **public's level of understanding** of complex technologies (e.g. 5G and 6G)
- **issues of public apprehension** or concern (doubts, uncertainties, fears and misconceptions)
- **relationships** across the multiple stakeholders (incl. policy makers, industry, developers)
- **tensions**, dissent, friction, misunderstanding (incl. dissent within the scientific community), misapprehension, informative asymmetry, misconception.



Social and moral values more important for society

Future scenarios generating value for society

Politics and decisional power

Where communication issues stand



Controversies around 5G



Digital Divide: the risk of widening the gap between those with access to the latest technology and those without;

Environmental Impact: questions about the energy consumption of 5G network and their environmental footprint;

Perceived Technical Failures: initial 5G deployments, while promising significant speed boosts and transformative applications, fell short for some users, for them the rollout felt like unfulfilled hype, failing to deliver the promised advancements;

Misinformation & Disinformation: the spread of false information about 5G, contributing to public fear and opposition;

Health concerns: fear about the potential health impacts of 5G radiation, including claims about cancer risks, headaches, and other health problems;

Privacy and Surveillance: concerns over increased data collection, surveillance capabilities, and potential for privacy invasions;

Regulatory & Safety Standards: debates over the adequacy of current safety standards and regulations for 5G technology;

Technological Dependence: concerns about societal over-reliance on technology and the potential consequences of network failures;

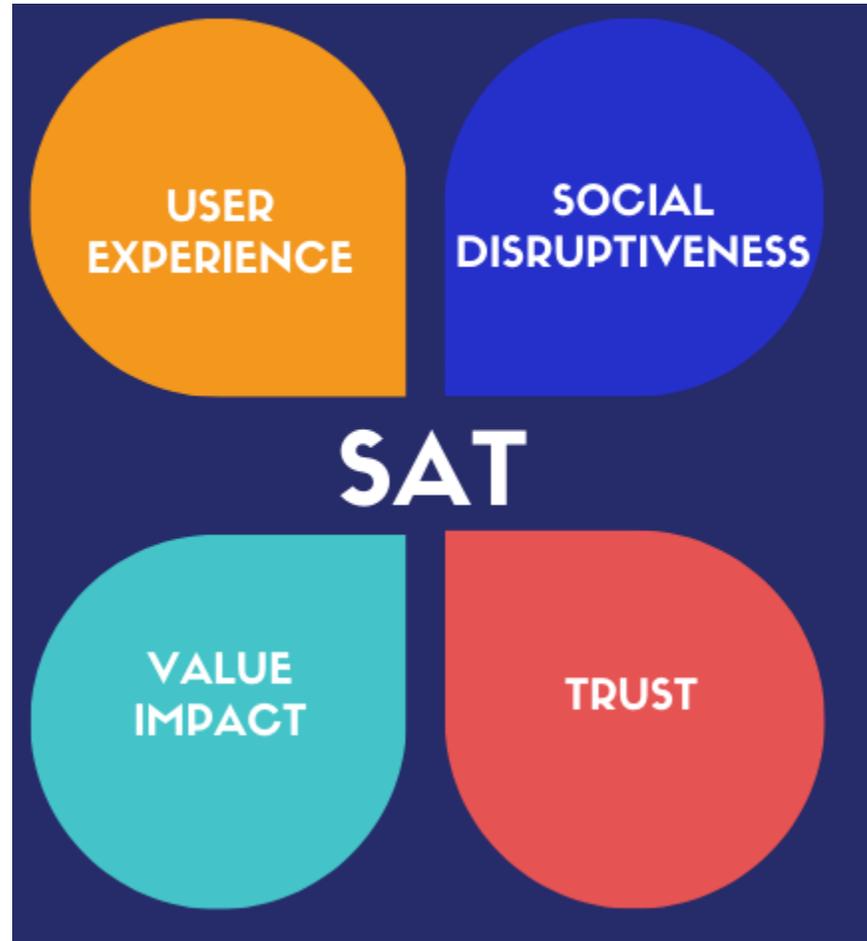
Geopolitical concerns: the rollout of 5G technology has ignited geopolitical tensions. Reliance on non-domestic companies for critical infrastructure raises concerns about compromised sovereignty and cybersecurity vulnerabilities.



Social Acceptance of Technology (SAT)

- We cannot test technology, but we can analyse needs and service desirability
- Relationship between feasibility and desirability in priority setting

- Values we learnt important for 5G
- Concerns we identified
- To which extent translated into technology design / intended applications / functionalities?
- Whose values are we embracing?
- How are we communicating?



- Long-term, unexpected, unintended...

- It is about...
- how technology works (acceptability)
 - Relationship and communication dynamics among actors
 - policy and institutions presence or action on a certain issue.
 - the way people understand and perceive the world



- **Adapting the model**
- **Work with 6G IA working groups**, to address in parallel the aspects of KVIs, KSIs, and Acceptance.
- **Exploring stakeholders views through surveys**
 - A survey to collect public views
 - A survey to better know the work of SNS projects on KVIs and Acceptance

- Technology transform society...and viceversa.
- Could public perception influence how technology will be implemented? Could 6G may be utilized differently and having different use cases we did not think about, based on users' input?
- **Acceptance as a complex, non predictable space of relationship, also as opportunities, in terms of use-cases and applications.**
- There is a power and transformative potential in opening tech at the right moment (engaging stakeholders)
- (not easy to find this *right moment* and the *right method*).
- Importance of competences about methods and orchestration of relationships for co-design and co-decision.

Project objectives

1

Generating a **better understanding and shared knowledge** on the aspects influencing public acceptance of 6G technologies

2

Supporting the conception and development of a unified EU consensus framework on a **value-based, sustainable and ethics-driven** approach towards 6G, and to support its promotion through the 6G EU and global standard-setting process

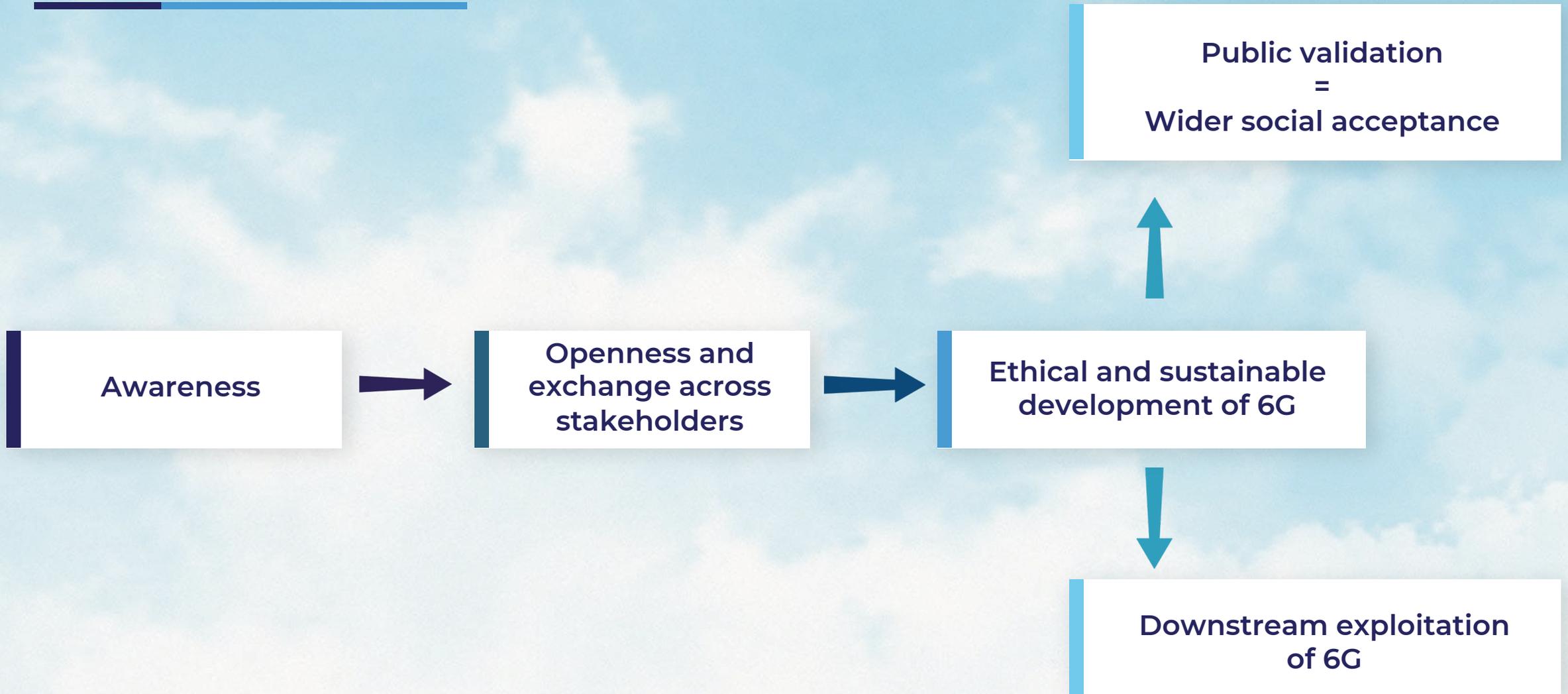
3

Engaging and reaching out to public audience to help **build 6G awareness and social acceptance**

4

Empowering the 6G community on how to **reflect EU policy and legislation into technology solutions** for future networks' development and services

Long-term impacts



Partners driving 6G4Society



NOVA



THANK YOU



NOVA



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