FGSNS CO-OP

SNS-OPS/SNS CO-OP Survey Results on Vision aspects of Call 3 SNS Projects

Per Hjalmar Lehne (Telenor) 16.06.2025

Co-funded by the European Union

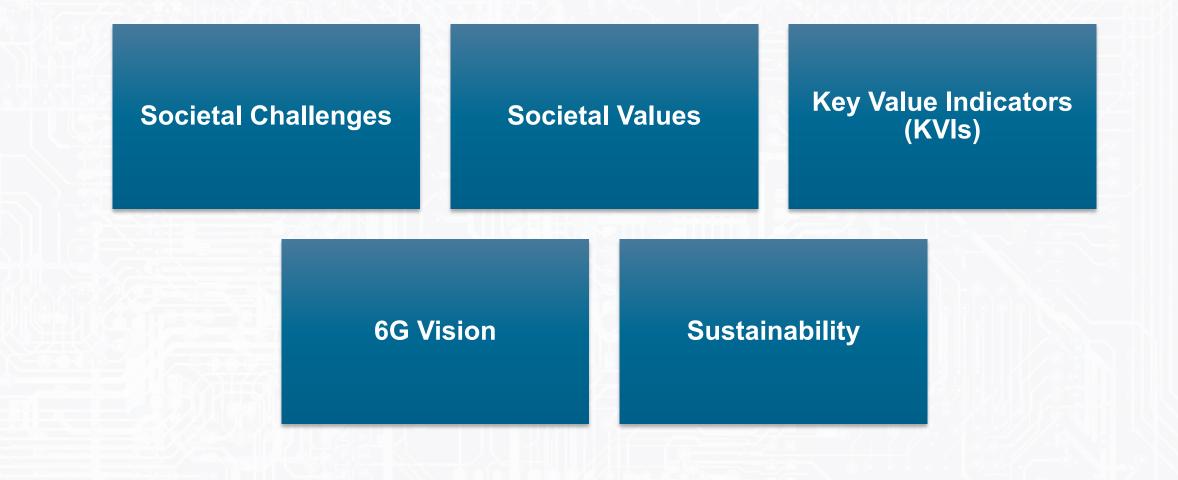


smart-networks.europa.eu

VISION SECTION









- Sustainable 6G, New business models and market segments, and Strong European impact are considered the most important societal challenges
- Energy efficiency is considered the most important societal value, followed by privacy, security and human safety
- Most project will use trials and experiments to assess Key Value Indicators (KVIs)
- The transition from 5G to sustain and enhance 5G innovations are most important contributions to the 6G Vision, together with the integration of new service capabilities
- Industry, Innovation and Infrastructure, together with Sustainable Cities and Communities, are most important UN SDGs

Vision, V1: Which SNS Societal Challenges are addressed in your Project?



Sustainable 6G, e.g. energy, climate and environmental impact of current and future 6G technology solutions as well as related... Creation of new business models and market segments, e.g. by supporting new use cases in various industries. Promote a strong European impact at future downstream 6G standardization stages based on Europe-wide consensus of 6G... 6G for sustainability, e.g. energy efficiency/carbon neutrality for various of other sectors.

Cyber-security, data protection, confidentiality of exchange of data and their security and privacy, including economic...

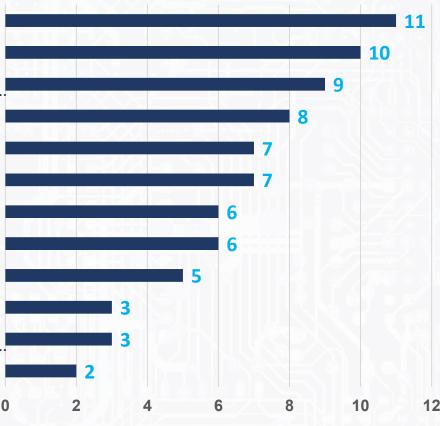
Technological sovereignty across the SNS value chain

Affordability and accessibility considering the cost of technological solutions and the impact on availability and prices. Intellectual property aspects and its valorisation through standards in a changing (software/IT influenced) digital world.

Improving public services such as healthcare, education, safety

The digital divide and social inequality

Ethical/circular/efficient procurement and management of resources and raw materials across the SNS value chain, for... Contribution to "green growth", e.g. decouple economic activity from negative sustainability impacts.



Number of call 3 Projects

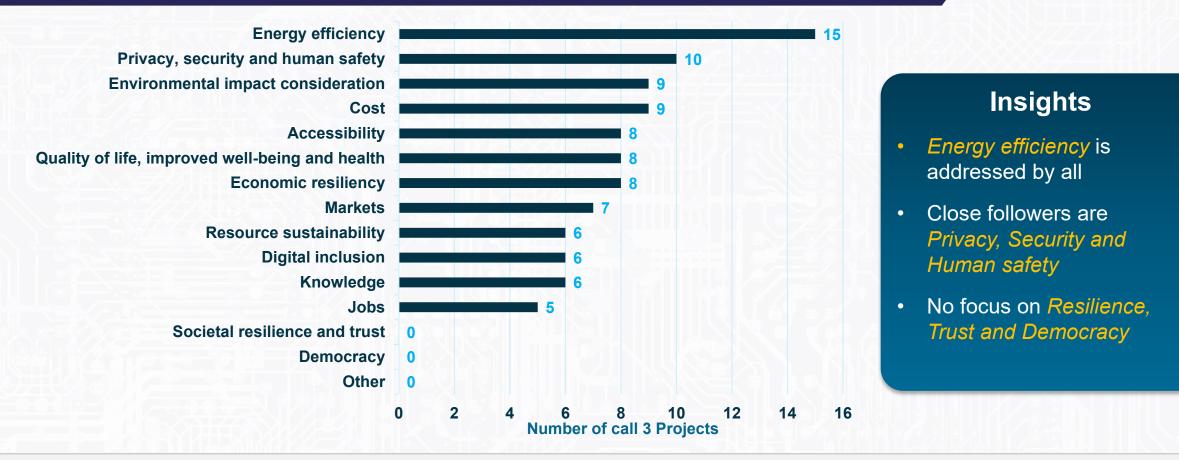
Insights

- In focus:
 - Sustainable 6G
 - New business models and market segments
 - Strong European
 impact

Compared to the call 2 survey in 2024, Sustainability has now been classified as a challenge, while it was previously categorized as a value. Comparing across shows that it maintains top focus.

Question

Vision, V2: Does your project address any societal values mentioned below?



One project also mentions:

Technological sovereignty and Intellectual property valorisation through standardisation.

These aspects are covered under question V1 for this survey

SNS

Developments in projects' focus on societal challenges and values from Call 1 to Call 3



Sustainability:

- Has been top rated by projects in all three calls. For Call 1 and Call 2, sustainability was discussed as a societal value, but in the Call 3 questionnaire, this was moved to the question on societal challenges.
- Related challenges comprises aspects of energy consumption and efficiency, carbon footprint etc. Sustainability has been rated to have medium to high importance by projects in all three calls.

Security, confidentiality and privacy:

- Rated above medium for Call 1 (value and challenge). Slightly lower attention in Call 2, while more important in Call 3.
- Sovereignty:
 - Same question asked for all three calls, and has been rated medium and stable

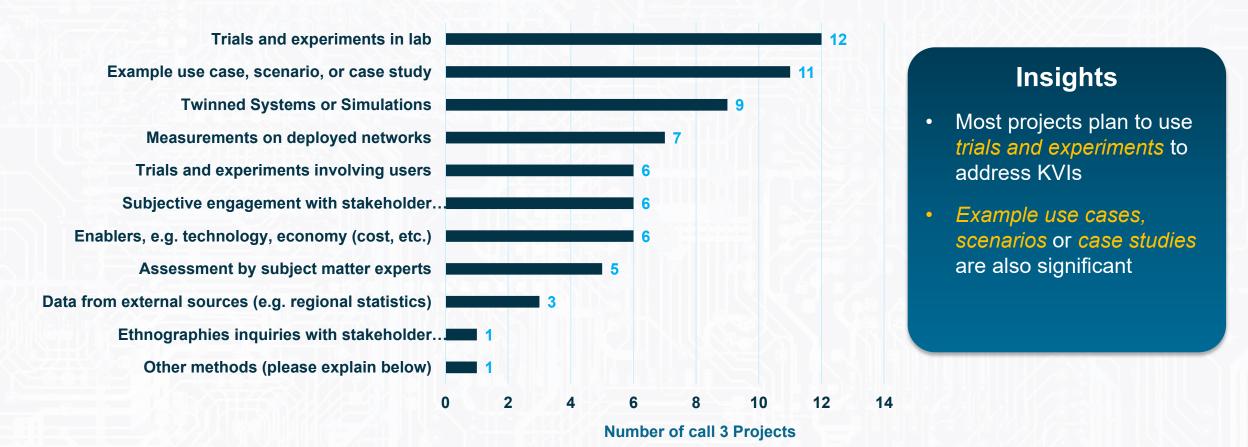


- European perspective:
 - This was not explicitly addressed in the first questionnaire (Call 1) in 2023. For Call 2 and Call 3 this was addressed in the question on challenges referring to European value-based approach, and European impact on standardization, respectively, and received top-3 ratings both times.

Vision, V3:

Does your project assess Key Value Indicators (KVIs)? If yes, which validation and assessment methods do you plan to use?





Other mentions:

Proof-of-Concept (PoC) demonstrations conducted on large-scale testbeds and infrastructures.

Vision V3: Assessment of KVIs: Developments from Call 2 to Call 3



- Question V3 in Call 1 was significantly different from Call 2 and Call 3:
 - Asking about KVs in Call 1 now handled in the technical section. Call 2 and Call 3 questions are focussing on KVI assessment methods
- Three options were continued:
 - Trials and experiments, Measurements on deployed networks, and Assessment by subject matter experts.
 - All three options have increased focus in Call 3 compared to Call 2, if the number of projects in each call is taken into account.
- Two options were replaced:
 - Instead of asking about Interviews and Focus groups, we asked about more specific towards stakeholders on Subjective engagements and Ethographic inquiries.
- Four new options were introduced:
 - Use cases, scenarios and and case studies; the use of Twinned systes or simulators; Technology or economic enablers; and the use of Data from external sources.
- The option on using Questionnaires was removed:
 - However covered to some degree by the above (addressing stakeholders).

Trials and experiments		Measurements on deployed networks	Assessment by subject matter experts
54.	5%	33.3%	15.2%
Lab	With users		

Vision, V4: How do you contribute to the 6G Vision in your project?

Other

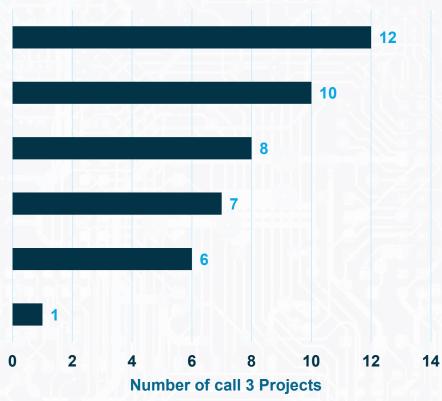


Foster transition from 5G to 6G by extensions, enhancements and modifications to sustain and enhance 5G innovations.

Integrate new service capabilities with an emphasis on interoperability and service continuity.

Address potential shortcomings of 5G in areas that may have been underdeveloped, e.g., with respect to support of vertical industries. Define sustainable 6G ecosystems through a new business ecosystem approach, prioritising long-term values over short-term interests and gains and...

Ensure seamless interconnection and interoperability among network providers beyond just connectivity.



Insights

- Projects are focusing on transition from 5G to sustain and enhance 5G innovations
- The integration of new service capabilities is also important

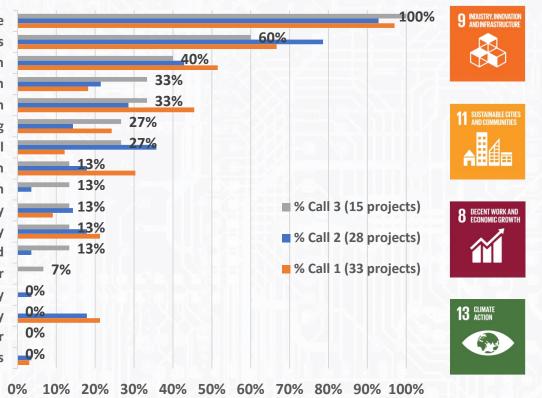
Options in Call 3 are different from Call 2, reflecting the development in the objectives of the work programme

One project mentions:

Advancing 6G through AI/ML-driven predictive wireless communications; Development and standardisation of novel antenna concepts; Creation of open, disaggregated network architectures.

Vision, V5: Which UN Sustainable Development Goals (SDGs) will your project contribute to?

SDG 9: Industry, Innovation and Infrastructure SDG 11: Sustainable Cities and Communities SDG 8: Decent Work and Economic Growth **SDG 12: Responsible Consumption and Production** SDG 13: Climate Action SDG 3: Good Health and Well-being SDG 17: Partnerships to achieve the Goal **SDG 4: Quality Education** SDG 6: Clean Water and Sanitation SDG 7: Affordable and Clean Energy **SDG10: Reduced Inequality** SDG 15: Life on Land - 7% SDG 2: Zero Hunger _0% **SDG 1: No Poverty** 0% **SDG 5: Gender Equality** 0% SDG 14: Life Below Water _0% **SDG 16: Peace and Justice Strong Institutions**



Insights

SNS

- The SNS Work Programme is specifically asking for contributions to 4 SDGs and *all* 4 of them are on top
- There is a *significant increase* in support for SDGs 12, 6, 15 and 17 from call 1 to call 3
- There is a *significant drop* in support for SDG 5 from call 2 to call 3

Percentage of Projects for each call

Compared to the 2023 and 2024 survey of Call 1 and Call 2 projects: Same SDGs on top: 9, 11 and 8. Some changes in order between SDGs 12, 13 and 17.

Open comments to the Vision section from the projects



 $\langle \gamma \rangle \langle \rangle \langle \rangle$

• A "Network of Networks" vision:

- "... intelligent, distributed, and modular 6G ecosystem that seamlessly integrates terrestrial and non-terrestrial networks (NTNs), ensuring scalability, resilience, and ultra-low latency."

From performance to purpose:

- "... the emphasis on semantic and goal-oriented communications ... a major paradigm shift from traditional performance-centric networking toward intelligent, efficient, and purposeful communication, which significantly reduces network resource usage, enhances energy efficiency, and contributes to overall sustainability."

The importance of data:

- "Remove the barrier of 6G dataset scarcity, by building the first comprehensive 6G Dataspace."



- European sovereignty:
 - "... addressing European Technology Sovereignty from Silicon and III-V Processes foundries to Networks in a vertical value chain."

SNS

FFSNS CO-OP

THANK YOU FOR YOUR ATTENTION

in D



Co-funded by the European Union

Co-funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the SNS JU. Neither the European Union nor the granting authority can be held responsible for them.

