



SNS CO-OP – SNS Collaborative Operations and Output Optimisation

D2.1: Stakeholder Identification & Involvement Strategy

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Abstract

The present document outlines the stakeholder engagement strategy that will be implemented by the SNS CO-OP Coordination and Support Action, in close alignment with the SNS JU Office. Building on the achievements of the SNS JU over the past years, it provides a detailed overview of the main pillars of the strategy and action plan for engaging with global stakeholders, peer JUs, European National Initiatives, verticals and complementary domains, and SMEs. While the strategy applies throughout the entire duration of SNS CO-OP, this document highlights the action plan from January 2025 to March 2026.

[End of abstract]

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Executive Summary

The advent of 6G is poised to revolutionise telecommunications. The innovation waves that will culminate into a new generation of wireless technologies are engaging a growing number of stakeholders whose roles and interactions in the ecosystem are also experiencing the uncertainty inherent to big changes. Defining and implementing a comprehensive and flexible framework for the mapping and involvement of the Smart Networks and Services (SNS) stakeholders is crucial to the success of the SNS Joint Undertaking (SNS JU) in accomplishing its mission of fostering Europe's technological sovereignty in 6G and boosting 5G deployment in Europe.

The SNS Stakeholder Identification and Involvement Strategy (referred to as the Strategy from this point onwards) proposed in this document aims to foster a dynamic and resilient community, where the cooperation among all the actors across the SNS value chain leads to unique opportunities and discoveries. The identification of new SNS stakeholders and the implementation of measures that facilitate their integration into the ecosystem serves this premise by bringing in fresh perspectives that favour cross-fertilisation from an early stage.

The overarching methodological framework of the Strategy is upheld on the principles of agility and collaboration, which drive the different support and coordination actions encompassed. Facilitating and fostering the dialogue among a wide array of stakeholders is deemed essential thus, the Strategy provides plenty of channels for participating in the conversation and development of 6G in Europe. It is in the edge of knowledge that breakthrough innovations happen.

Considering the structure of the current SNS ecosystem, it also emphasises the importance of having tailored activities that meet the needs of specific target stakeholder groups, namely: global stakeholders, peer JUs and national initiatives (NIs), vertical and complementary domains, and SMEs, enabling them to realise their individual goals whilst tapping into the full potential of the community. These actions often have a collaborative nature to ensure that all SNS stakeholders are involved and supported in the most efficient manner.

Solidifying the influence of SNS JU at international level will propel Europe as the lead in 6G development. In this respect, the establishment and exploitation of synergies with global actors and NIs is fundamental to ensure the European perspective helps in shaping the global consensus on critical 6G system aspects. Likewise, harmonising European efforts in 6G will enhance efficiency when addressing technological, socioeconomical and environmental challenges linked to 6G, but will also boost the effectiveness of its innovations. For instance, the single digital market will be reinforced in this process, setting the standards going forward.

The involvement of verticals, both early adopters and innovation drivers, is a priority as it guarantees that SNS technologies address real-world needs, industry demands and requirements, and therefore are relevant from the outset. Standardisation efforts continue to be at the centre of the work carried out in relation to Verticals and complementary domains. In this respect, the objective is to help SNS JU R&I projects and researchers maximise the impact and exploitation of their results, thus encouraging an early-market adoption of the technology. The engagement with Verticals is also key to ensure that the 6G SNS solutions meet their individual requirements as well as the global ones necessary to accomplish a green, digital societal transition.

Small and medium-size enterprises (SMEs) support and engagement efforts, and the promotion of entrepreneurship are mainly addressed in the frame of the NetworkEurope SME WG. A level playing field will increase the ability to find appropriate solutions to identified and emerging challenges by enabling the materialisation of strategic collaborations. Furthermore, the active involvement of SMEs is fundamental for constituency building, necessary to advance the SNS JU ambitions.

In summary, the SNS Stakeholder Strategy accounts for the rising sophistication of the SNS community, compounding the SNS JU vision with a specific action plan intended to nurture a thriving ecosystem. The comprehensive involvement of all relevant players in the SNS programme activities will guarantee their impact, scalability and overall added value. Ultimately, this will be key to materialise SNS JU ambitions to position Europe as a global leader in 6G technology.

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Abbreviations

3CN	3C Network – Connected, Collaborative Computing
3GPP	Third Generation Partnership Project
6GF	6G Forum
6G-IA	6G Industry Association
AIOTI	Alliance for IoT and Edge Computing Innovation
CCSA	China Communications Standards Association
CHIPS-JU	Chips Joint Understanding
CSA	Coordination and Support Action
CSO	Civil Society Organization
DG-CNECT	Directorate-General for Communications Networks, Content and Technology
EC	European Commission
ECCC	European Cybersecurity Competence Centre
ECS	Edge Computing System
ECISO	European Cyber Security Organisation
ESA	European Space Agency
ETP	European Technology Platform
ETSI	European Telecommunication Standards Institute
HE	Horizon Europe
HPC	High Performance Computing
ICT	Information and Communication Technology
IMT-2030	International Mobile Telecommunications - 2030
IPCEI	Important Projects of Common European Interest
ITU-R	International Telecommunication Union – Radiocommunication Sector
KPI	Key Performance Indicator
KSO	Key Strategic Orientation
KVI	Key Value Indicator
NWE	NetworldEurope
PSCE	Public Safety Communications Europe
RT	Real Time
SB	Steering Board
SME	Small or Medium sized Enterprise
SNS CO-OP	SNS Collaborative Operations and Output Optimisation
SNS JU	Smart Network and Services Joint Undertaking
TB	Technology Board
TN	Terrestrial Network
TRL	Technology Readiness Level
VET	Vertical Engagement Tracker

1 Introduction

This document details the foundations and objectives of the SNS Stakeholder Engagement Strategy and Action Plan and the corresponding activities for the duration of the SNS CO-OP CSA, whilst focusing on the first year and a half of the project, running from January 2025 to March 2026.

The structure of the document is as follows:

Chapter 1 – Introduction

Chapter 2 – The SNS Stakeholder Engagement Strategy

Chapter 3 – Global Stakeholder Involvement & Interaction

Chapter 4 – Peer JU & European National Initiatives Dialogues

Chapter 5 – Verticals and complementary domains

Chapter 6 – SME and entrepreneurship promotion and support

Chapter 7 – Conclusions

1.1 Main objectives

The main goal of the Stakeholder Involvement and Interaction Strategy is to build a solid and resilient SNS community, fostering the engagement and cooperation of all the stakeholders already identified, as well as the new players in the SNS domain. It seeks to prepare the European industry to adopt advanced 5G and emerging 6G technologies by facilitating a conducive and dynamic ecosystem, where stakeholders receive support, share knowledge and cooperate to develop new solutions.

The specific objectives are listed below.

- Maintain existing relations with global stakeholders to promote the European view on 6G and to support identification of global strategic R&I orientations/collaborations (T2.1)
- Maintain a high level of European participation in global 6G events. (T2.1)
- Establish and maintain links with European and global standards forums (T2.1)
- Establish and maintain links with 6G Member State (MS) initiatives to coordinate on R&I at EU scale. (T2.2)
- Establish and maintain links with peer partnerships/initiatives (e.g. HPC, Chips, AI, Cloud) to align R&I programming and support identification of strategic R&I orientations at EU level. (T2.2)
- Maintain dialogues with vertical stakeholders, to identify and promote their interests in 6G R&I and to provide feedback towards the SNS community regarding the vertical outlook (T2.3)
- Organise workshops and other supporting activities for global, European, MS, and vertical stakeholders to facilitate coordination and to promote collaboration (this is a transversal objective)
- Analyse the participation of SMEs in the next phases of SNS JU and support the SME WG. (T2.4)

1.2 Transitioning from SNS OPS and SNS ICE to SNS CO-OP

SNS OPS and SNS ICE were the two CSAs supporting the SNS Joint Undertaking (SNS JU) from January 2023 to March 2025. SNS ICE and SNS OPS played complementary roles, the former acting as the ambassador for SNS JU and the later facilitating its operations. Both aspects are now merged in SNS CO-OP, which kicked off in January 2025.

This three-month overlap has allowed for a smooth transition between CSAs. Whilst some activities

ended, others will continue seamlessly in the context of SNS CO-OP. In particular, WP2 has revisited the initial approach to the different target stakeholder groups, both internal and external, which were previously addressed by SNS OPS and SNS ICE respectively. As a result, it has defined a framework that builds on previous accomplishments, ensures alignment when addressing stakeholders, and fulfils the ambitions of the project.

2 SNS Stakeholder Identification and Engagement Strategy

The SNS Stakeholder Engagement Strategy will follow an Agile Stakeholder Management Framework² which is succinctly described in Section 2.2 below. The responsiveness and adaptability of the Framework are some of its main strengths, making it highly effective in rapidly changing ecosystems such as the SNS one.

This chapter defines the main objectives of the strategy, describes the status quo of the Beyond 5G and 6G stakeholder community, and outlines the overall action plan, with a particular focus in Year 1.

2.1 Main objectives

The SNS ecosystem is ever evolving. As the new generation of wireless technologies develops, its new capabilities and applications involve an increasingly number of diverse stakeholders. The identification of these stakeholders is critical to design tailored engagement strategies. This targeted approach is not only resource-efficient, as it relies on an advanced planning of the interactions using available assets, but it is also effective, as it ensures stakeholders are provided the best support, and creates the necessary conditions to nurture close collaborations.

The main objectives of this framework are specified below:

- Update and maintain the SNS stakeholder ecosystem map carried out in SNS OPS.
- Identify and engage newcomers to the SNS ecosystem and continue to foster cooperation in the existing SNS community, ensuring coordination among all relevant initiatives and providing the necessary support to enable the equal participation of all players.

These objectives represent a continuation of the work done in previous years and set the fundamental elements to implement a successful engagement strategy.

2.2 Action plan

The Agile Stakeholder Management Framework is a methodology designed to identify and interact with target groups under a common scheme, with the capacity to develop and adapt throughout the project lifetime according to new priorities and the execution of the workplan.

The Framework follows an iterative approach consisting of three phases, where the primary goal is to increase and reinforce stakeholder engagement incrementally. The three phases are as follows:

- Scouting – mapping of stakeholders
- Interacting – engaging with the identified target stakeholder groups
- Learning – integrating the lessons learnt during the execution to optimise the activities in the next iteration.

2.2.1 Identification of stakeholders in the SNS ecosystem

Building on the SNS stakeholder ecosystem map³ previously developed in SNS OPS, this activity seeks to elaborate a comprehensive map containing all the relevant SNS players and their roles. To this end, an iterative consultation, combining a bottom-up and top-down approach, will be launched. This mixed approach will capture the complexity of the SNS ecosystem as it gathers feedback from different players across domains and hierarchy levels.

The bottom-up consultation will be carried out first, collecting feedback from all ongoing SNS JU projects. For this purpose, a request will be sent via the SNS Steering Board to project coordinators,

² The Agile Stakeholder Management Framework is property of AUSTRALO.

³ SNS OPS, D4.3 “Stakeholder Involvement and Interaction: Final Report”

asking them to collect their project inputs regarding the SNS ecosystem.

The top-down approach will consist of two stages. Firstly, contributions will be requested from associations representing verticals and complementary domains, the 6G-IA Governing Board, and the NetworkEurope Steering Board. The SNS JU Office will also be invited to provide their inputs. In a second stage, SNS CO-OP partners will be asked to revise the new additions, addressing contradictions and overlaps, and overall ensuring the quality and relevance of the map.

Once all inputs are integrated, multiple visuals will be produced to illustrate the latest composition of the SNS ecosystem and the stakeholders' roles and interactions. The visuals will show different levels of detail of the ecosystem in a clear and reader-friendly format. A glossary will also be included to facilitate navigating the map.

The SNS stakeholder ecosystem map can be a useful tool for different actors, both within the community and beyond. For instance, it could help SNS projects identify their target stakeholders. Result of this exercise will consist of a set of visuals depicting the SNS stakeholder ecosystem map with different levels of detail. The design will consider the potential dissemination of the visuals in different media and it will be adjusted accordingly. It will be released as milestone 4 "Stakeholder Review" in January 2027 (M25).

The identification of the SNS stakeholders will underpin the success of the engagement strategy, which will provide a targeted plan for actively involving each category of stakeholder in the SNS community.

2.2.2 Overall engagement of stakeholders in the SNS ecosystem

The SNS stakeholder ecosystem map is divided into three layers or sub-ecosystems according to the main role of its actors in the SNS value chain.

The **provisioning ecosystem** comprises those stakeholders involved in the development, deployment, and maintenance of 5G/6G infrastructure, technology and services, such as network operators, equipment vendors, and system integrators. These stakeholders play a crucial role in the implementation of 5G/6G technology by developing and delivering the necessary hardware, software, and network infrastructure to support the deployment of these advanced networks and enabled services.

The **user ecosystem** encompasses all stakeholders who can benefit from the deployment of 5G/6G technology, including those who use 5G/6G networks and services to deliver specific applications and services, mainly verticals, such as healthcare providers, transportation companies, and smart city developers.

The **enablers & facilitators ecosystem** includes stakeholders who provide a variety of supporting services that enable and facilitate the provisioning and use-case ecosystems to operate effectively. It also includes policymakers, SDOs and regulators that work towards the development of industry standards, policies, and regulations that enable interoperability and promote the widespread adoption of 5G/6G technology across different regions and markets.

The SNS Stakeholder Engagement Strategy will target the aforementioned stakeholder ecosystems. The identification will provide insights on the stakeholders' idiosyncrasy, which will enable the design and implementation of a tailored plan for effectively involving them in the SNS ecosystem. This approach seeks to facilitate the integration of newcomers whilst consolidating the existing community and continuing to foster a dynamic ecosystem that helps boost cooperation between different actors across the value chain.

The progress of the engagement plans will be closely monitored to understand the results of the different activities carried out and their impact towards the objectives for each target group. This feedback will be then integrated into the plans to continuously improve on how target stakeholders are approached, fine-tuning activities and shifting the course of action if necessary. The specific strategies designed for each target stakeholder group are detailed in the next chapters.

Lastly, the SNS CO-OP partners have well-established relationships with the central players identified. All these connections will be systematically leveraged to establish discussion pipelines that support the objectives of the SNS JU.

3 Global Stakeholder Involvement & Interaction

A key aspect of SNS CO-OP's stakeholder engagement strategy is the interaction and synergies with global stakeholders in order to strengthen international consensus around 6G, inform and educate the SNS JU community about global 6G developments, and promote the work and results of the SNS JU to other regions of the world.

As SNS CO-OP takes over the baton on international collaboration from SNS ICE, which had assumed the role of the SNS JU ambassador to the world, and SNS OPS, which was responsible for the overall stakeholder engagement efforts, it assumes the responsibilities and activities of these two projects. SNS CO-OP is tasked with continuing the progress made over the past two and a half years and further expanding the current SNS international ecosystem.

The maintenance and expansion of the existing SNS JU ecosystem requires an effective, resource-aware approach and careful planning that will combine the strengths of all project partners and will rely on their individual expertise and networks. The main objectives and action plan of SNS CO-OP regarding global stakeholder involvement and interaction are presented in this section.

3.1 Main objectives

SNS CO-OP has undertaken the task of facilitating the interaction of SNS JU participants with international stakeholders and promoting synergies at an international level. It will disseminate the work and key outcomes of SNS JU projects to the rest of the world and will foster global consensus on critical 6G system aspects. This is not a trivial task, as it requires constant awareness of the status of Research and Innovation (R&I) activities worldwide, attendance to all major 6G events, effective positioning of the EU and SNS JU views and priorities on the global discourse, and continuous collaboration and networking activities to maintain and extend synergies with global stakeholders.

SNS CO-OP will not start from scratch, but build upon the excellent work performed by its predecessor CSAs: SNS OPS and SNS ICE. These two projects managed to build and maintain an extensive global network of stakeholders through the signing and support of Memoranda of Understanding (MoU) and Letters of Intent (LoI) with a diverse portfolio of stakeholders and through the (co)organisation of multiple joint actions, such as events, workshops, webinars, panels, conference sessions, white papers, policy briefs, and much more.

According to SNS ICE D1.3 [1], there are currently 26 MoUs/LoIs in effect with major international R&I, vertical and governmental associations, mostly via 6G-IA and its collaborative bodies. Besides the MoUs, an extensive network of synergies and collaborations have been established by SNS ICE and SNS OPS projects, which is now inherited by SNS CO-OP, as depicted in Figure 1.

The SNS CO-OP global stakeholder involvement and interaction strategy goes beyond the simple maintenance of MoUs and networking activities. It will adopt a multi-faceted approach towards the creation of an ecosystem of international partners, with constant bi-directional communication, which will result in increased awareness of the SNS JU activities and outcomes and will foster consensus. More specifically, the main objectives of the global stakeholder involvement and interaction strategy of SNS CO-OP are:

- Maintain, enact (via common actions) and if possible, expand the current list of MoUs/LoIs with major international stakeholders working on 6G R&I activities.
- Be an integral part and strengthen the international dialogue on 6G, to foster consensus on critical aspects, via intensive organisation and participation in relevant events.
- Promote the vision, work and insights of SNS JU to international stakeholders and strengthen the EU's position within global associations.
- Support SNS JU researchers in implementing their standardisation roadmaps to maximise the standardisation impact of SNS solutions on the global stage and advocate for a single, global 6G standard.

SNS CO-OP's action plan to accomplish these objectives is outlined in section 3.2.

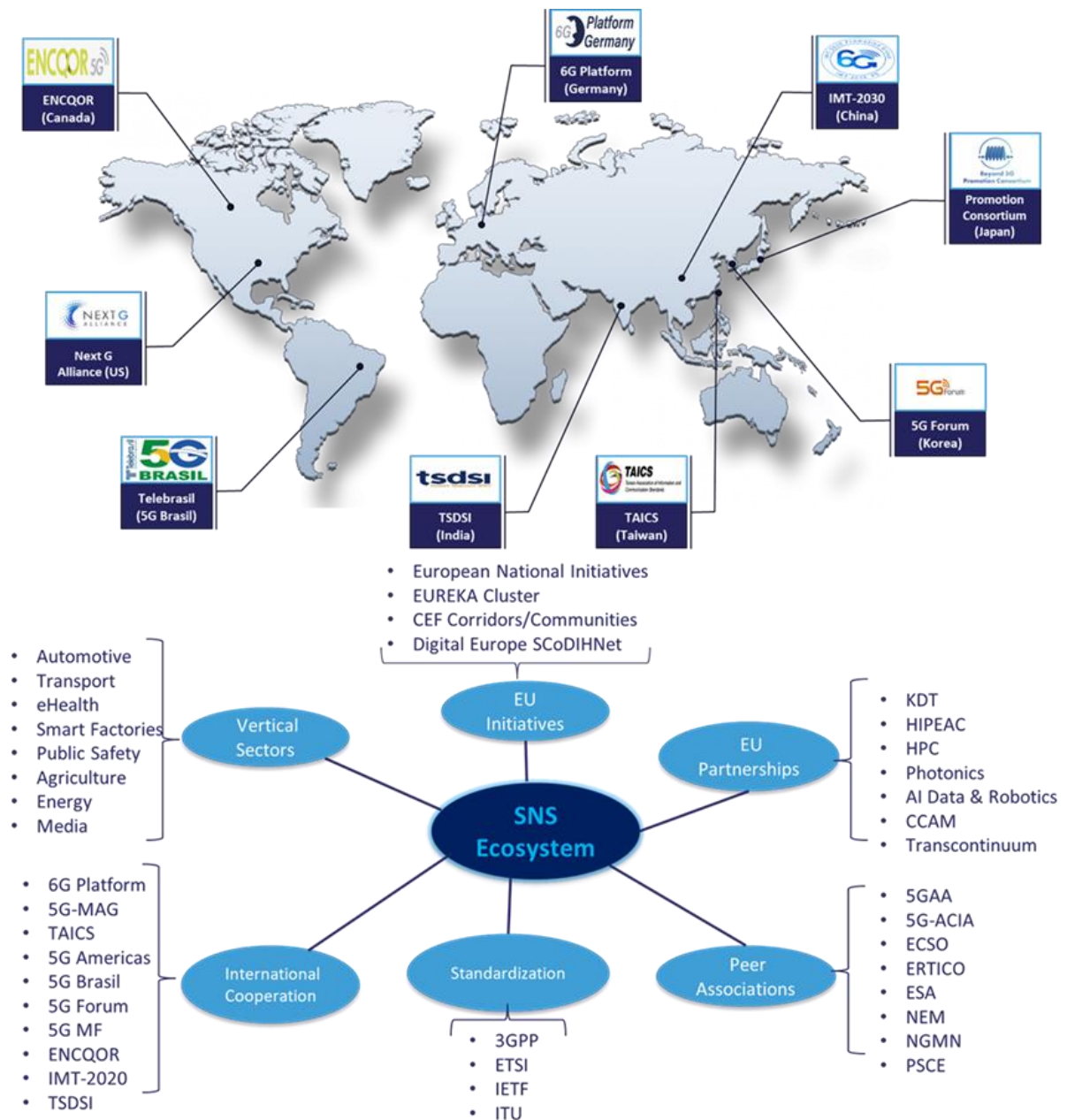


Figure 1: SNS Ecosystem & MoUs/LoIs inherited from previous CSA projects (SNS ICE & SNS OPS)

3.2 Action plan

To accomplish the ambitious objectives set forth in SNS CO-OP regarding global stakeholders' involvement and interaction, a well-thought-out action plan is needed, with specific steps to be followed, considering the expertise, skills and available network of the SNS CO-OP partners. As almost all the SNS CO-OP partners participated in either SNS OPS or SNS ICE, there is an “automatic” transfer of expertise and lessons learned from the past two and a half years, which have been considered to improve and fine-tune the process to be applied in SNS CO-OP.

The devised action plan comprises six distinct steps, as depicted in Figure 2, which will enable the achievement of this activity's objectives and will clearly delineate the roles of project participants. While this action plan applies throughout the entire duration of SNS CO-OP, the specific actions and events envisioned for the first period of the project are highlighted here. The results of this plan will be re-evaluated at the end of the first period, and adjustments and fine-tuning will take place to further improve its impact, also taking into account the evolving needs of the SNS JU community.

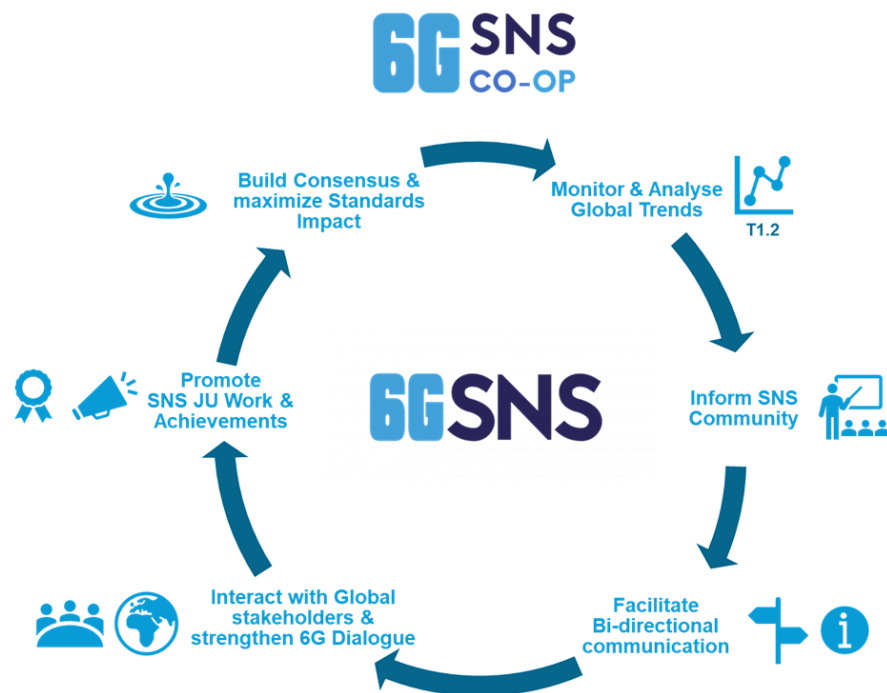


Figure 2: SNS CO-OP Global Stakeholder Involvement & Interaction approach

The SNS CO-OP global stakeholder involvement and interaction action plan, illustrated in Figure 3, comprises the following steps:

1. **Monitor & analyse global trends:** This task is performed by Task 1.2 (WP1) and its results will be shared with WP2 to enable effective international collaboration. Following in the footsteps of SNS ICE, project partners will perform a detailed survey on the latest 6G trends and priorities around the world (e.g., targeted KPIs, prioritised use cases, prioritised technological enablers), as well as on the progress and roadmaps of major global standardisation bodies. The analysis will comprise critical input for the identification of commonalities and differences in approach with other regions and will offer indications on potential synergies between the SNS JU and other stakeholders on shared fields of interest. The insights gained from this activity will guide the formulation of the strategy for the next steps of the action plan.
2. **Inform the SNS community:** Updating the SNS Community on the global trends and priorities in 6G research, as well as about the acceptance of the SNS JU results from the rest of the world and the discussions taking place during international meetups, is an integral part of the SNS CO-OP action plan. This step comprises a feedback loop towards the SNS JU researchers that will enable the fine-tuning and adjustment of researchers' efforts to the developments on the global stage, avoiding any significant gaps in European expertise compared to the rest of the world. SNS CO-OP will act as the "eyes and ears" of the SNS JU community actively sharing information through targeted webinars, workshops, tutorials and info days
3. **Facilitate bi-directional communication:** Besides informing the SNS JU community about the developments on the international stage, it is of critical importance to facilitate the direct interaction between SNS JU researchers and stakeholders (i.e., academics, industry, SMEs, governmental agencies) from other regions of the world. The bi-directional exchange of information among researchers is the key component that will drive consensus and will speed-up the development and validation of critical 6G technologies. SNS CO-OP will organise common events where SNS JU and international stakeholders will be invited to share their views and interact. These events may take the form of co-creation events and/or panels/workshops, encouraging the direct engagement of participants with one another. Moreover, SNS CO-OP may act as a liaison towards international stakeholders and provide the necessary contacts to SNS JU projects that wish to interact with specific international stakeholders.

4. **Interact with global stakeholders & strengthen 6G dialogue:** This is one of the most important steps of the SNS CO-OP action plan and the most resource and effort intensive, as it entails the (co)organisation of and attendance to several international events, both physically and remotely. The constant presence in all major venues where 6G is discussed is the only way to build, maintain and expand the SNS JU ecosystem and to create awareness about the SNS JU priorities and work. SNS CO-OP has already identified major international events that consortium partners will attend in representation of the SNS JU in the following year, including, but not limited to: Techritory 2025, Global5G Event, 6G Summit, Global 6G Symposium, Global 6G Development Conference, 6G World Summit, Tokyo 6G Conference, MWC 2026 and more. The interaction with relevant stakeholders in such events and the engagement in key discussions will ensure that the SNS JU views and priorities will be taken into account towards the forming consensus.
5. **Promote SNS JU work & achievements:** As SNS CO-OP partners will actively engage with international stakeholders in many formats and occasions, the promotion of the vision, priorities and achievements of the SNS JU researchers will be among the top priorities. Following in the footsteps of the predecessor CSA projects, SNS CO-OP partners will present in multiple international fora and events, always raising awareness about the activities and developments within the SNS JU and promoting the priorities of EU researchers. Moreover, SNS CO-OP partners will support the SNS JU collaborative bodies, such as the Steering Board (SB), Technology Board (TB) and Working Groups (WGs) with the formulation of their key messages, with core dissemination activities, such as the SNS Key Achievements and the Trials & Pilots Brochure, which bring significant visibility, as well as with the elaboration of white and position papers that will be circulated globally.
6. **Build consensus & maximise standards impact:** The final step of the SNS CO-OP global stakeholder involvement and interaction action plan comprises the ultimate goal behind all the previous interactions with global stakeholders, which is none other than the creation of a ***single global 6G standard with a strong impact from EU and SNS JU research***. To achieve that, wide consensus is needed among global stakeholders, where SNS JU stakeholders have a strong position based on developed technologies and standards contributions. SNS CO-OP will systematically track the standards roadmaps and SNS JU project contributions to various SDOs (updating the SNS JU Standards Tracker). It will also facilitate the education of SNS JU researchers on how to maximise the impact of their solutions through, for example, invited keynotes by standards experts, active participation and assistance to the 6G-IA pre-standardisation group, common events with 3GPP and ETSI experts, etc. The key outcomes of the SNS JU projects will also be used by SNS CO-OP partners in international events as talking points and will drive the strategy to create consensus around these points.

As indicated in Figure 3, the various steps in the SNS CO-OP action plan form a loop, as each of them is interconnected with the rest, receiving critical input that enables each step to be realised effectively and feeding their output to other activities. Through the meticulous implementation of the above steps, SNS CO-OP will establish a lasting communication bridge with all major regions of the world working on 6G and will enable the maximisation of the impact of the SNS JU investments.

4 Peer JU & European National Initiatives Dialogues

Coordinated and consolidated efforts towards 6G development will enable Europe to play a significant role in global discussions and to leverage 6G technology for the region's economic growth and strategic autonomy. Therefore, identifying strategic R&I priorities and facilitating the coordination of the R&I outcomes and initiatives across the EU, including those at Member State (MS) level, is essential and a key element of the SNS CO-OP's stakeholder engagement strategy.

Peer Associations & JUs are fellow architects of Europe's digital future. A strong collaboration with the SNS JU not only enriches the ecosystem with a multiplicity of perspectives, resources, and strategic insights, but also helps to harmonise objectives, avoid duplicative efforts and propel Europe to the forefront of the global digital arena. Moreover, it is crucial to align efforts and vision with the European National Initiatives (NIs) for 6G. This close collaboration will foster a cohesive European approach to 6G development, streamline efforts, optimise resource allocation and amplify the impact of R&D at a continental scale.

4.1 Main objectives

Regarding the European context and its stakeholders, SNS CO-OP focuses its work in four main objectives:

- Maintain and deepen the links established with previously identified 6G National initiatives and expand those relationships to additional MS, in order to coordinate R&I efforts at an EU scale.
- Maintain and deepen the links with peer partnerships and initiatives that were previously identified and broaden them to include other relevant peer partnerships.
- Facilitate discussions with both national initiatives and peer partnerships, to align R&I programming and support identification of strategic R&I orientations at EU level.
- Promote the views of the SNS JU and its strategic priorities within Europe whilst providing input to the SNS JU work programme from the inputs received via the National initiatives and peer partnerships, in an effort to create a complementary 6G R&I ecosystem.

SNS CO-OP will build upon the work performed by the predecessor CSA projects, i.e., SNS OPS and SNS ICE.

Regarding peer partnerships and initiatives, the first collaborations between the SNS JU and other peer partnerships and initiatives were established in the context of SNS OPS. A series of strategic workshops, led by 6G-IA, were organised with peer partnerships and initiatives in microelectronics, photonics, non-terrestrial networks, security wireless communication technologies and signal processing, and cloud and service provision. Dedicated white papers were published conveying the results and detailing the next steps⁴. Cooperation was also established with the cybersecurity community (ENISA)⁵, AI, IoT and Edge Continuum Innovation (AIOTI)⁶, New European Media (NEM), and the 5G Alliance for Connected Industries and Automation (5G-ACIA).

In addition, SNS ICE also established links with relevant peer partnerships such as the European High-Performance Computing Joint Undertaking (EuroHPC JU), Chips Joint Undertaking (Chips JU), AI, Data and Robotics Association (ADRA), Cooperative, Connected and Automated Mobility (CCAM), Photonics Europe, and more. It also identified cloud as one of the major topics of interest within Europe and offered detailed reporting on the various active projects/initiatives active in the domain in an effort to sketch out the current ecosystem.

⁴ 6G-IA Strategic Consultation Workshops, available at: <https://6g-ia.eu/strategic-consultation-workshops/>

⁵ de Majo, C., Carneiro, J., & Dotaro, E. (2025). 6Gsec Common Path and Cardinal Points "6Gsec CP2" (1.0). Zenodo. <https://doi.org/10.5281/zenodo.14723479>

⁶ "How advanced communications can support sustainability goals", available at: www.networldeurope.eu/workshop-how-advanced-communications-can-support-sustainability-goals-21-january-2025/

SNS CO-OP will continue to strengthen the cooperation with these partnerships and initiatives to align priorities and roadmaps. It will also work to expand the collaboration to new actors related to the 6G domain.

Regarding the work with the European 6G National Initiatives (NIs), SNS ICE took the lead in the work on identification and investigating how these national initiatives can make European 5G/6G research even stronger. In the last years, there has been a considerable amount of effort being dedicated to the development of 6G technology in the European ecosystem. On the one hand, Horizon Europe SNS JU issued its first call in January 2022, with EUR 900 million funding over the period 2021-2027 and at least, the same contribution from industry. On the other hand, large NIs have also started in several European countries with a combined funding budget of almost EUR 2.5 billion.

SNS ICE made a significant contribution in consolidating this previously fragmented ecosystem and aligning the priorities of the National Initiatives and SNS JU. SNS ICE identified and reported on nine national initiatives, namely: Finland 6G bridge⁷, Finland 6G Flagship⁸, the Netherlands⁹, Italy¹⁰, Germany¹¹, Spain¹², France¹³, Sweden^{14,15}, and Ireland¹⁶, as shown in Figure 3.

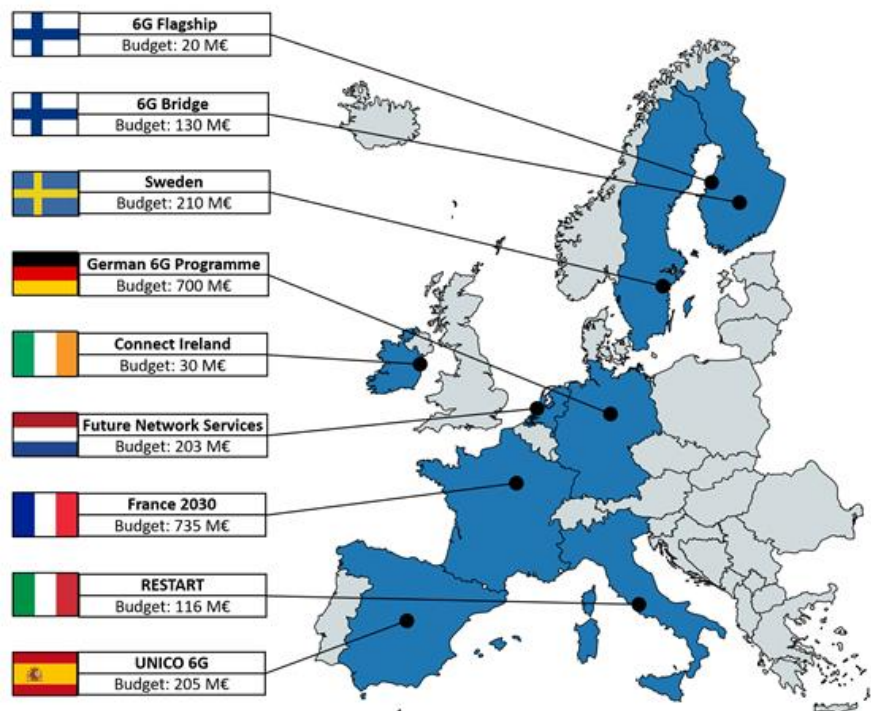


Figure 3: National initiatives identified and reported on within SNS ICE

Detailed information on these efforts can be found in SNS ICE deliverable D2.1 [1], D2.2 [2] and D2.3 [3].

⁷ Business Finland, “6G Bridge”, available at: www.businessfinland.fi/en/for-finnish-customers/services/programs/6g-bridge/

⁸ University of Oulu, “6G Flagship”, available at: <https://www.6gflagship.com/>

⁹ FNS, “Future Network Services”, available at: <https://futurenetworkservices.nl/>

¹⁰ Fondazione Restart, “Restart”, available at: <https://www.fondazione-restart.it/>

¹¹ Federal Ministry of Education and Research, “6G Platform Germany”, available at: <https://www.6g-platform.com/>

¹² Ministry of Economic Affairs and Digital Transformation, “Espana Digital”, available at: <https://espanadigital.gob.es/en>

¹³ Gouvernement, “France 2030”, available at: <https://www.gouvernement.fr/france-2030>

¹⁴ Avancerad Digitalisering, “Avancerad Digitalisering”, available at: <https://www.avanceraddigitalisering.se/>

¹⁵ Vinnova, “Center of competence”, available at: <https://www.vinnova.se/en/m/competence-center/>

¹⁶ CONNECT, “CONNECT – The Science Foundation Ireland Research Centre for Future Networks and Communications”, available at: <https://connectcentre.ie/>

4.2 Action plan

This section summarises the different activities encompassed in this task, outlining the SNS CO-OP efforts to achieve the ambitious objectives previously described, building on the strong foundation laid by SNS ICE and SNS OPS.

While all activities are relevant for the entire project's duration, the work plan focuses on the actions envisioned until M15. The actions in the second reporting period will be planned based on the input gathered from the identified R&I stakeholders over this first period.

4.2.1 Liaison with peer partnerships

1. Maintain relationships with peer partnerships

SNS ICE and SNS OPS invested significant effort in establishing links with relevant peer partnerships such as Chips JU, EuroHPC, Photonics Europe, ADRA, CCAM, etc. The organisation of workshops with participation from related Partnerships (e.g., Chips JU, Photonics, etc.), involving SNS JU and DG CONNECT officers, was one of the main instruments for disseminating information and advancing collaboration-coordinated activities. During these, the strategic priorities from the private and public sides were presented. Furthermore, information and feedback from the peer partnerships was collected, which helped shape the SNS JU work programme. Additionally, SNS ICE and OPS members participated in workshops organised by ETP4HPC, CCAM and ADRA to exchange related information.

SNS CO-OP is continuing this well-established framework of workshops and events in an effort to share priorities on the topics addressed and find common ground on the R&I efforts.

More specifically, on the 7 of May 2025 a virtual workshop on photonics was organised by 6G-IA with the participation of 25 experts from the private and public side, including people from Chips HU and Photonics 21. A structured table of proposed topics has been prepared and will be further discussed/streamlined during the following months, targeting potential consideration for future SNS JU R&I WPs.

On the 12 of May 2025, a physical meeting on microelectronics took place in Brussels, at the SNS JU Office premises, with 24 experts from the private and public sides, including representation from the Chip JU. A specific plan for future steps was developed during this meeting. The key principles of this meeting have been presented on the 11 of June 2025 during the Chip JU Board as one possible option for a coordinated focus topic under the Chips JU activities, following the existing SNS JU call in WP2025 (open call at the time of the preparation of this deliverable).

On 14 of May 2025, a physical meeting on AI for the telecom sector took place in Brussels, at the SNS JU Office premises, with 26 experts from the private and public sectors. The actual results of this meeting are currently under further elaboration to be considered as possible input for the call of SNS R&I WP 2026.

On 16 of May 2025, a virtual workshop with 34 experts and representatives from DG CONNECT, the SNS Office and ESA took place. A structured list of technological priorities has been prepared and will be further discussed/streamlined during the following months, targeting potential consideration for future SNS JU R&I WPs.

Finally, there are plans for further workshops on Wireless, Security, and a number of verticals i.e., with 5G-ACIA, 5GAA and CCAM and PSCE. These workshops are planned for Q4 2025.

2. Expand links and reporting to other peer partnerships

In addition to the previously identified peer partnerships, SNS CO-OP will make an effort to identify other relevant peer partnerships and establish links with them. A reporting on these new initiatives will also then be included in the future deliverables from SNS CO-OP.

3. Facilitate discussions on topics of European strategic importance

SNS ICE identified certain topics that are of importance to the strategic autonomy of Europe and must be addressed at a European level with relevant stakeholders. This included the topic

of cloud, which focuses on disaggregated cloud infrastructures and reducing dependence on hyperscalers. SNS ICE deliverable D2.2 [2] presented the cloud ecosystem active in Europe, in an effort to sketch out the current work being done in that regard.

SNS CO-OP will continue to explore topics of strategic importance within Europe, such as cloud, and facilitate discussions on these. These discussions could be organised in the form of a workshop or co-creation session at major conferences, such as the upcoming edition of Techritory that will take place in October 2025 in Riga, Latvia. In addition, SNS CO-OP will also pay attention to any other topics that deserve to be spotlighted and will provide them the facilitation and platform needed for collaboration.

4.2.2 Engagement of national initiatives

1. Expand links and reporting to other MS

Currently, nine National Initiatives have been identified and have established links of collaboration with the SNS JU: Finland 6G Flagship, Finland 6G Bridge, Germany, Spain, France, Italy, the Netherlands, Sweden and Ireland.

SNS CO-OP will work to expand the links to other MS and establish contact with them. To that aim, it is key to identify which contacts can act as liaisons with the SNS JU and provide different kind of information, such as organisational, technical, collaboration, etc. Once contacts within the new national initiatives have been established, SNS CO-OP will make an effort to understand the 6G ecosystem active within the MS: how 6G activities are structured, how they are funded, and what efforts are being taken towards collaboration. This information will ultimately be reported in the subsequent deliverables.

It is important to note that some of the initiatives identified earlier had large budgets and were organised in centrally governed programmes with a co-linked structure. In contrast, in countries with smaller budgets, 6G efforts are more fragmented, with elements organised separately. SNS CO-OP will work to identify, gain understanding of, and report these fragmented 6G activities.

2. Maintain relationships with National Initiatives

While meeting at major conferences and brainstorming on collaboration possibilities is very valuable, these moments are too few and far between to sustain an effective and stable collaboration long-term. Therefore, SNS ICE started a series of online collaboration meetings with representatives of the nine national initiatives identified in Figure 3. SNS CO-OP has taken over from SNS-ICE in the organisation of these NIs online collaboration meetings. ‘

These meetings are held every six weeks for a duration of 1-1.5 hours. They are an opportunity for the different NIs to keep updated on the current activities from the SNS JU and provide an opportunity to collaborate and, while also allowing NI representatives to bring forth their input – what topics they are focusing on, what actions are planned, can some joint activities be organised, etc. In other words, these meetings also give NIs an informal platform to share their concerns and find a community that can help.

During Q1 2025, SNS CO-OP extended an invitation to the United Kingdom (UK) Initiative to join these collaboration meetings. Starting May 2025, the UK national initiative is now a regular member.

It is important to note that NIs may change (e.g., some programs may end, and new different NI could start) during the duration of SNS CO-OP, influencing the current approach.

3. Collect input to facilitate R&I collaboration

While identifying new NIs and maintaining links with existing ones is very important, this effort is being done with collaboration in mind. Understanding the structure and organisation of the NIs within the MS helps us to target collaboration actions at the right level. Similarly, understanding the topics they are focusing on helps identify how the R&I efforts and results could either be consolidated at a European level or how national R&I activities could be strengthened with SNS JU funding. The roadmaps of the individual NIs also help to shape the SNS JU future work programmes.

In order to have these discussions on funding, strategic roadmaps, and different collaboration actions that can be leveraged to realise common goals, it is valuable to have opportunities where all relevant stakeholders can meet. For this purpose, SNS CO-OP aims to organise workshops, panel discussions, and co-creation sessions on collaboration opportunities at major upcoming conferences e.g., EUCNC and Techritory.

More in detail, SNS CO-OP has taken over the task from SNS ICE in organizing a convened session with the name “A collaborative approach to 6G – unifying the European R&I ecosystem” during the EUCNC & 6G summit in June 2025 in Poznan, Poland.

4. Provide opportunities for dissemination and interaction within the broader European R&I community

Since January 2025, SNS CO-OP has been facilitating the organisation of webinars where the NIs have the possibility to present their work, with a special focus on their results and key experimentation platforms. The goal of these webinars is to create awareness among the European R&I community on the work that is being carried out in the MS, and to give an opportunity to the NIs to position themselves as suitable partners in the current round of NS calls.

As of June 2025, three webinars had taken place with the UK¹⁷ (January 2025), the Netherlands¹⁸ (May 2025) and Italy¹⁹ (May 2025). Several others NIs are already in the pipeline, including France, Spain, and Finland. SNS CO-OP will continue this series of webinars until all identified national initiatives have had the chance to present their work.

As a next step, SNS CO-OP is already working together with the different NIs to identify topics of common interest which could lead to the planning of future webinars. In this context, two topics, Resilience and FR3 Spectrum, have been identified so far through collaboration meetings and will be disseminated via webinars in the upcoming period.

¹⁷ Webinar on UK's 6G Achievements and Experimental Platforms, 24 of January 2025, available at: <https://smart-networks.europa.eu/event/uks-6g-achievements-and-experimental-platforms/>

¹⁸ Webinar on National Initiatives: Dutch National Initiative on 6G, 8 of May 2025, available at: <https://smart-networks.europa.eu/event/national-initiatives-dutch-national-initiative-on-6g/>

¹⁹ Webinar on the Italian National Initiative on 6G: the achievements in the RESTART programme, 22 of May 2025, available at: <https://smart-networks.europa.eu/event/the-italian-national-initiative-on-6g-the-achievements-in-the-restart-program/>

5 Vertical & Complementary Domains Engagement

A continuous collaboration with key vertical sectors, such as automotive, healthcare, manufacturing, energy, and media, is essential for designing effective 6G communication systems. These sectors are both major adopters and drivers of future connectivity demands, requiring tailored solutions for applications like ultra-reliable low-latency communication in autonomous vehicles or high-precision localisation in industry. 6G developers (i.e., equipment vendors, network operators, academia and SMEs) to co-design architectures and services that meet real-world needs, ensuring technical relevance and economic impact from the outset. This made it possible for Europe to play a leading role in the design of 5G and 5G advanced at the global scales, and is also regarded as a key asset towards the definition of 6G.

Early interaction with verticals also helps uncover long-term trends and requirements that a telecom-only perspective might miss. This insight supports the creation of a transformative 6G ecosystem, enabling mission-critical use cases, cross-sector innovation, and unlocking broader societal value. It also promotes regulatory alignment, standards development, and early validation through vertical-led pilots, all key steps for accelerating adoption and maintaining global competitiveness. In short, ongoing dialogue with vertical industries and the corresponding vertical associations is foundational to the success and impact of 6G.

5.1 Main objectives

The strategic objectives pursued by SNS CO-OP in what concerns the engagement of the SNS JU with vertical sectors are as follows:

- **Foster continuous and targeted communication with vertical sectors:** Sustained and focused communication with vertical stakeholders is essential to maintaining their engagement, fostering mutual understanding, and ensuring the fit of 6G developments to sector-specific priorities. This supports long-term cooperation and trust-building across the ecosystem.
- **Strengthen technical synergies through the realisation of trials and pilots and collaboration in standardisation:** Ensuring that vertical actors are involved in technical and standardisation activities is critical to align 6G research with practical industry requirements. Their input helps shape technologies that are interoperable, effective, and grounded in real-world use cases.
- **Expand and diversify the vertical engagement ecosystem:** Broadening the base of engaged vertical sectors increases the relevance and impact of the SNS initiative across Europe. A diverse ecosystem enables richer cross-sectoral insights, supports inclusive innovation, and strengthens the resilience of 6G technical developments across a variety of application domains.
- **Harness stakeholder intelligence to inform strategic directions:** Collecting and analysing feedback from verticals helps identify sectoral expectations, emerging trends, and barriers to adoption. This intelligence is vital for steering the SNS research agenda, ensuring responsiveness to market needs, and supporting evidence-based policy input.
- **Maximise visibility and influence through participation in strategic events:** Participation in high-level industry and research events reinforces the leadership of SNS JU in the 6G space. It increases programme visibility, strengthens stakeholder relationships, and facilitates the exchange of ideas across technical, business, and policy domains.
- **Boost the Vertical Engagement Tracker (VET) as a core engagement and insight tool:** The VET provides a structured, data-driven view of sectoral involvement in SNS activities. It enables more effective stakeholder engagement, supports transparency, and facilitates strategic planning through continuous monitoring and analysis.

5.2 Action plan

Vertical engagement was initiated within the 5G-IA through a dedicated Board-level Task Force. Formal partnerships were established with key vertical associations via MoUs, providing a structured and trusted framework for cross-sector collaboration, initially around 5G and now extended to 6G. These MoUs define concrete joint activities, including co-authored whitepapers, participation in industry events, collaborative webinars, and coordinated press releases, fostering mutual visibility and alignment between the ICT and vertical ecosystems.

To ensure that the SNS JU is strongly aligned with real-world industrial needs, this action plan outlines a structured approach to deepen engagement with vertical sectors. It focuses on expanding communication channels, fostering technical collaboration, and broadening the ecosystem to include diverse industries.

5.2.1 Strengthening information sharing and dialogue

A cornerstone of effective vertical engagement lies in ensuring clear, targeted communication. To this end, SNS CO-OP will continue to develop and deliver a range of joint activities designed to foster dialogue and increase awareness of 6G capabilities.

Webinars will remain a key vehicle, with sessions already held with vertical associations, such as media (5G MAG²⁰), industrial automation (5G ACIA²¹, May 2025), and additional webinars planned for other sectors, including railway (EIM, September 2025), smart cities (Eurocities), and health, among others. These sessions will be complemented by **thematic whitepapers**, such as those currently in preparation about the energy sector and, in collaboration with AIOTI, the agricultural sector, to be released in late 2025 and 2026 respectively; and potentially, policy briefs that address strategic cross-sector concerns.

Plans are also underway to launch a series of **video** and **audio podcasts** under SNS CO-OP, in collaboration with VASES, to communicate insights in an accessible, multi-format approach. Final confirmation of roles and effort allocation for these activities will be coordinated with WP2 and WP4.

5.2.2 Deepening technical engagement and collaborations in standardisation

Beyond communication, SNS CO-OP aims to strengthen the technical dimension of vertical engagement by supporting active collaboration in pre-standardisation efforts and ongoing trials. Specifically, **vertical representatives will be encouraged to participate in relevant pre-standardisation discussions**, such as those maintained in the context of the 6G IA pre-standardisation WG (co-chaired by Trust-IT) to ensure their requirements are reflected early in the standards development process.

In parallel, SNS CO-OP will promote **increased vertical participation in the SNS Trials WG** (chaired by CTTC) and related pilot and demonstration activities. This could include support for the development of **upcoming issues of the SNS Trials and Pilots brochures** (e.g., for carrying out the down selection of applications), a successful series of outreach materials aimed to highlight technical achievements of selected projects in the SNS portfolio. Outcomes of SNS Stream D projects –focused on vertical pilots in sectors such as manufacturing, media, automotive, transport, safety, and health– will be shared as **inputs into evolving technical roadmaps and future SNS R&I work programme** priorities. This feedback loop is crucial for keeping the programme responsive to sectoral needs and ensuring real-world relevance.

5.2.3 Broadening the vertical sector ecosystem

To reflect the full diversity of the European industrial landscape, the SNS ecosystem must continually evolve to include new vertical sectors. Building on the current network of MoUs, SNS CO-OP will actively **scout additional associations from emerging or underrepresented domains**, such as smart cities, aviation, and clean energy.

²⁰ 5G-MAG website: www.5g-mag.com/post/13-05-24-6g-ia-5g-mag-joint-workshop-media-beyond-5g-insights-from-european-projects

²¹ 5G-ACIA website: <https://smart-networks.europa.eu/event/6g-ia-5g-acia-update-on-recent-5g-6g-achievements/>

Renewals of existing MoUs will also be pursued to ensure sustained engagement over the longer term. This includes existing MoUs with key sectors such as Public Safety (PSCE), Automotive (5GAA), Transportation (ERTICO), Space (ESA), Smart Manufacturing (5G ACIA), and Media (5G MAG, NEM), which are close to termination or already expired.

A key opportunity to support this expansion lies in better **leveraging Digital Innovation Hubs (DIHs)** to foster replicability of solutions and cross-regional collaboration. Initial discussions with key actors in the SNS Co-Op consortium (6G-IA, which also participates in the SCoDIHNeT Coordination and Support Action) will explore how DIH involvement can complement vertical engagement and enable the scale-up of tested solutions.

5.2.4 Stakeholder intelligence and feedback

A data-driven understanding of stakeholder needs is essential for shaping effective engagement strategies. To that aim, SNS CO-OP will build upon the survey work carried out under SNS-ICE to gather detailed feedback from verticals on their experience with 5G and their expectations for 6G. Future **surveys under SNS CO-OP** will be carefully designed to get updated feedback on their expectations on 6G, and also further assess 5G barriers of adoption. Particular attention will be paid to align surveys with strategic milestones, such as the organisation of face-to-face stakeholder workshops in Brussels towards the definition of future SNS R&I work programmes (2026, 2027).

Additional inputs will be gathered from the **outcomes of Stream D large-scale projects with verticals** such as the identification of new use cases from Call 3 and Call 4 projects which started in early 2025 or are set to start in Q1/2026, respectively. The latter will be aimed at further extending business opportunities for 6G with a focus on Industry 4.0 & Manufacturing, Media, Automotive, Transportation & Logistics, Emergency and Safety Services, and Health.

Complementarily, information will also be gathered from the realisation of **international trials and pilots** leveraging on the liaisons established under existing MoUs with overseas peer organisations (e.g., Japan, Korea, China, USA, Taiwan, Brazil, or Canada). These insights will be consolidated and published through tools such as the **VET** (see section 5.2.5) providing an up-to-date overview of use cases, sectoral requirements, and trends across the SNS initiative.

5.2.5 Use of the Vertical Engagement Tracker as a tool to systematically engage verticals

The VET is an online tool originally developed under the now-completed SNS ICE project in collaboration with SNS OPS, with the aim of mapping and monitoring 6G R&I use cases across a wide range of industry sectors. As of now, the platform includes 283 use cases from SNS Call 1 and Call 2 projects, as well as from projects funded with third-party support mechanisms (i.e. cascade funding open calls) within those Call 1 and 2 projects. The VET also maps 11 core functionalities, and 11 vertical associations linked to their respective sectors. The tool includes advanced filtering options by call, sector, type of experimentation, country, and functionality, as well as dynamic, embedded charts.

Under SNS CO-OP, the VET will be actively used as a **strategic instrument to engage vertical stakeholders**, and to analyse the interactions between SNS JU projects and vertical stakeholders. The tracker will be regularly updated with new data on use cases, MoUs, collaboration activities, and participation in sector-specific events. This data will be gathered through ongoing mapping exercises, stakeholder input collected in Task 2.3, and coordinated contributions from other tasks, particularly Task 4.2 (maintenance) and Task 1.2 (trend monitoring). These updates will ensure that the tracker reflects the most current picture of vertical engagement across the SNS ecosystem. In addition, trend monitoring activities in Task 1.2 will inform the refinement of VET content by incorporating evolving sector needs and future directions.

To maximise impact, VET data will be used as the **foundation for a range of outreach and engagement actions**. These include the production of sector-specific infographics, visual dashboards, and short-form digital content tailored to various verticals. These materials will be promoted through communication campaigns and presented at high-visibility events such as EuCNC & 6G Summit and 5G Techritory, where they can stimulate dialogue and attract new stakeholders.

Furthermore, the insights derived from VET will **support the development of position papers** highlighting vertical-sector requirements, opportunities for 6G, and the role of SNS projects in

addressing those needs. VET findings will also shape the content of a planned webinar series focused on verticals, enabling targeted, dialogue-driven engagement with key industry players. These efforts will help strengthen strategic relationships with verticals and ensure their active and sustained participation in the SNS initiative.

5.2.6 Organisation and participation in events and outreach activities

Finally, participation in external events remains a vital aspect of the engagement strategy. These events offer a unique opportunity to interact directly with vertical sector stakeholders, identify emerging needs, and promote the results and objectives of SNS projects. While distinct from internal information-sharing efforts (section 5.2.1), external outreach plays a complementary role in building trust, expanding visibility, and reinforcing the position of SNS as a central actor in the 6G landscape.

SNS CO-OP will maintain a **strong presence at high-level events** through workshops, special sessions, invited speeches, and panel discussions at venues such as Techritory, EuCNC, and flagship conferences of the IEEE (e.g., GLOBECOM, ICC or WCNC). The project will encourage SNS project partners to contribute content, demonstrations, and thought leadership that highlight the initiative's value for vertical sectors. Hence, these events will be used both to disseminate project outcomes and to gather feedback from vertical stakeholders.

6 SME and Entrepreneurship Promotion and Support

SMEs agility, innovation capacity and specialised expertise allow them to drive technological advancements and contribute to unique solutions across the value chain. SMEs are often early adopters and disruptors, accelerating the integration of emerging technologies into practical applications. Moreover, the SME involvement fosters a more competitive and diverse ecosystem, which is crucial for the sustainable growth of SNS.

Since SMEs are essential to the development of the SNS domain, a set of targeted actions have been defined to support their participation in the ecosystem. These seek to help them to seize collaboration and funding opportunities, unlocking their full potential and contributing to the broader innovation landscape.

6.1 Main objectives

The primary goal is to consolidate the SMEs involvement in the SNS community by offering comprehensive support. This entails the implementation of tailored actions that address the SMEs specific needs and challenges, while helping them to capitalise on their unique skills, expertise and experience. Fostering an inclusive ecosystem ensures equal opportunities for SMEs to participate and actively contribute to the SNS innovation efforts.

The specific objectives are listed below.

- To **analyse SME involvement in the SNS JU 2025 and 2026 calls for projects**, striving to reach a 20% SME participation, and to encourage SME involvement in the SNS JU beyond projects, for instance, promoting their contribution to strategic activities and other actions.
- To **support and expand the NetworkEurope SME WG**, in conjunction with the overall NetworkEurope, the European Technology Platform (ETP) for the telecommunications sector, and SNS strategy.
- To **promote the skills and expertise of SMEs** within the SNS ecosystem through different channels including the SME brochure and success stories, social media, the NetworkEurope website, or via participation in meetings and events.
- To **strengthen the engagement with SMEs involved in vertical sectors and in complementary domains** (in liaison with Task 2.3), as well as to **manage specific interactions with European SME initiatives** such as SCoDIHNet.

SNS CO-OP's action plan to accomplish these objectives is outlined in section 6.2.

6.2 Action plan

This section provides a summary of the status of the different activities encompassing this task, as well as the work plan until March 2025.

6.2.1 Monitoring SME participation in SNS JU

The analysis of the SME participation across the SNS JU calls is essential for gaining insights into their overall engagement within the ecosystem, as well as for identifying critical factors that may impact their level of involvement. It is also key to detect trends in the participation (number of SMEs, country of origin, number of projects, budget, participation over the years, etc.), potential gaps (geographical unbalance, concentration in the distribution of funding, etc.), economic weight, and other relevant factors.

Examining these variables is highly valuable to assess whether the identification and involvement strategy of SMEs in the SNS ecosystem is adequate, as well as to design tailored actions to engage newcomers in the SNS ecosystem. Furthermore, the data may inform future SNS JU work programmes and, particularly, calls for projects, ensuring that any conditions set forth consider the specificities of SMEs.

The identification of SMEs that participate in the SNS JU calls for projects will rely on various sources, namely: public data made available by the European Commission in the Horizon Europe Dashboard, and data provided by the 6G-IA and the SNS JU Office, as not all relevant information is publicly available. The data will be handled with the utmost respect to confidentiality and in full compliance with GDPR principles. Data will always be anonymised and aggregated when presenting results.

With respect to the engagement, the communication with SMEs regarding the launch of new calls and the provision of assistance that facilitates their participation, for example by finding a consortium to join, will continue to be a priority. This communication is ensured through various channels, including the NetworldEurope SME WG, the SNS JU and 6G-IA. Opportunities to participate in different activities and events in the SNS JU will be widely promoted and a conscious effort will be made to involve SMEs at all levels of discussion.

Complementarily, the outcome of the SNS JU call for projects 2025, which deadline is in September 2025, will be analysed in the first year of the project and the results included in D2.2.

6.2.2 Support to SME WG

NetworldEurope is the European Technology Platform (ETP) for the telecommunications industry in Europe. The NetworldEurope SME WG aims to become the reference body for SMEs in the SNS domain, continuing the role it has played in 5G PPP and previous initiatives. As such, the WG is at the centre of the SNS engagement strategy relative to SMEs.

The support actions are divided in four main categories:

- **Organisation and logistics** refer to the daily management of the SME WG, including handling memberships, maintaining the resources linked to the WG (i.e., BSCW, membership database, and so on), and organising the WG meetings, including scheduling, setting the agenda, drafting the minutes, and assisting with any follow-up actions.
- **Content** refers to all the activities linked to information sharing, elaboration of and contribution to papers, participation in SNS JU strategic actions, facilitating matchmaking and overall, any other endeavour in which the SME WG is actively contributing to shaping the SNS ecosystem.
- **Cooperation with other initiatives, partnerships and associations dedicated to SMEs** to join forces, align objectives and activities, exchange knowledge, foster high-level and peer to peer collaboration, and so on. In this respect, some preliminary cooperation activities are detailed in section 6.2.3.
- **Visibility** comprises all the promotion and dissemination actions concerning SMEs and the SME WG, such as attending and presenting in events and conferences organised within the SNS ecosystem and its complementary domains, raising awareness about the SMEs skills and expertise, and disseminating the materials produced by the SME WG, among others. This effort will be carried out in alignment with the overall SNS JU and NetworldEurope communication and dissemination strategy, as outlined in WP4.

As of M6 (June 2025), the SME WG has held one meeting in March 2025 to discuss the new SNS JU call for projects, the progress in the WG position paper and the participation in the EuCNC & 6G Summit 2025, especially in the “SMEs in the spotlight: driving innovation in next generation of communication networks” convened session²².

Around 30 participants attended the session that opened with remarks by SNS JU Programme Officer, Oana Radu, followed by a keynote by Professor Rui Aguiar from ITAV and Chair of NetworldEurope. The SME WG Chair provided an overview on the strategic role of SMEs in SNS development over the past three years.

The second part of the session put the work of SMEs in the spotlight, showcasing four SMEs’ success stories. The session finalised with a dynamic discussion panel on how SMEs are shaping the future of

²² EuCNC 2025 “SMEs on the spotlight: driving innovation in next generation of communication networks”, available at : www.eucnc.eu/programme/special-sessions/convened-session-5/ d

connectivity and ways to facilitate and boost their participation.

Table 1: Agenda “SMEs in the spotlight: driving innovation in next generation of communication networks” convened session

Agenda
Welcome <i>Jessica Carneiro, NetworldEurope SME WG Chair</i>
Opening remarks <i>Oana Radu, SNS JU Programme Officer</i>
Keynote <i>Rui Aguiar, NetworldEurope Chair</i>
The strategic role of SMEs in SNS development <i>Jessica Carneiro, NetworldEurope SME WG Chair</i>
Innovation at work: SME success stories <ul style="list-style-type: none"> • <i>Janez Sterle, Internet Institute</i> • <i>Adam Flizikowski, IS-Wireless</i> • <i>Edgardo de Oca, Montimage</i> • <i>Israel Koffman, RunEl</i>
How SMEs are shaping the future of connectivity <i>Moderator: Jessica Carneiro, NetworldEurope SME WG Chair</i> <ul style="list-style-type: none"> • <i>Mikael Fallgren, Ericsson and SNS SB Chair</i> • <i>Konstantinos Maliatsos, Associate Professor at University of the Aegean</i> • <i>Yudani Riobo, Head of Innovation at quobis and NetworldEurope SB member</i> • <i>Kostas Trichias, Project Manager/Senior Researcher 6G-IA and SNS TB Chair</i>
Wrap-up

WG social media channel continue to be regularly updated. Recent additions include the campaign promoting the success stories in the “**2024 European SME Expertise in 5G and Beyond**” brochure and the activities at EuCNC 2025, see Figure 4 and Figure 5. The WG has built a strong community through a solid presence in social media, which had some 1,500 members in mid-June 2025.



6G SNS CO-OP

NETWORLD EUROPE
SME Working Group

SME Success Stories at EuCNC & 6G Summit

Edgardo de Oca
Montimage

Adam Flizikowski
IS-Wireless

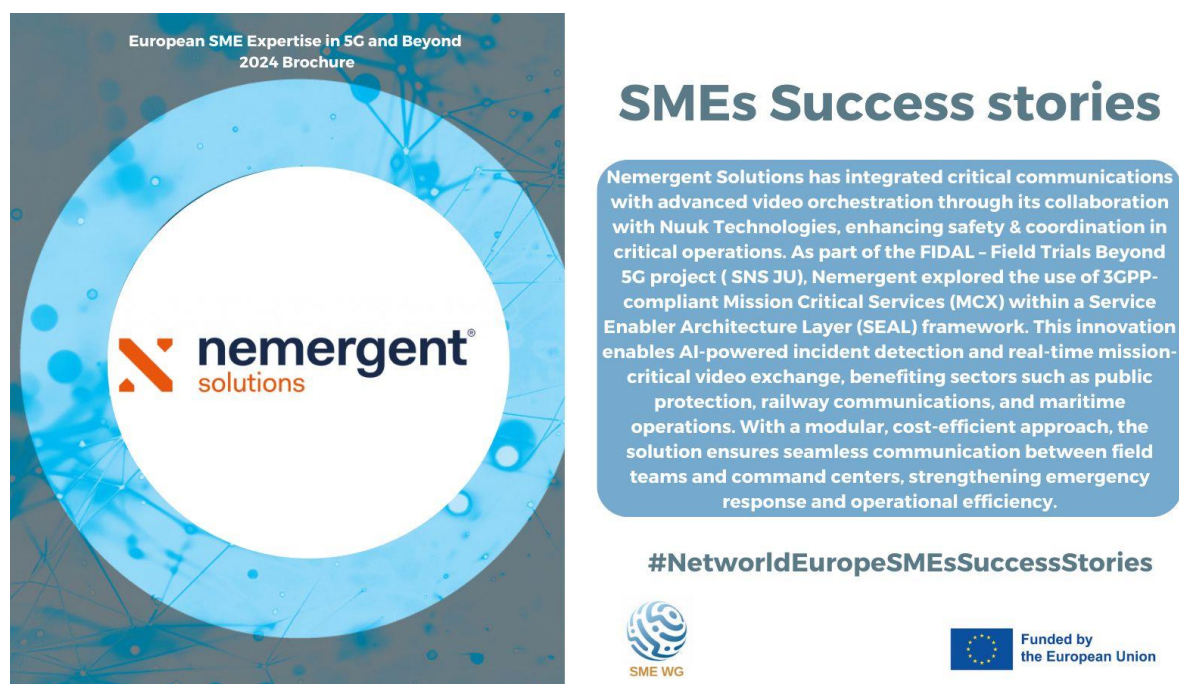
Janez Sterle
INTERNET INSTITUTE

Israel Koffman
RunEL

June 5th | 16:00 – 17:30 | room EH1 (level 2)

EuCNC | 6G Summit
Poznan, Poland • 3-6 June 2025

Figure 4: Visual for promoting the panellist in the SME WG convened session



European SME Expertise in 5G and Beyond
2024 Brochure

nemergent solutions

SMEs Success stories

Nemergent Solutions has integrated critical communications with advanced video orchestration through its collaboration with Nuuk Technologies, enhancing safety & coordination in critical operations. As part of the FIDAL - Field Trials Beyond 5G project (SNS JU), Nemergent explored the use of 3GPP-compliant Mission Critical Services (MCX) within a Service Enabler Architecture Layer (SEAL) framework. This innovation enables AI-powered incident detection and real-time mission-critical video exchange, benefiting sectors such as public protection, railway communications, and maritime operations. With a modular, cost-efficient approach, the solution ensures seamless communication between field teams and command centers, strengthening emergency response and operational efficiency.

#NetworldEuropeSMEsSuccessStories

SME WG

Funded by the European Union

Figure 5: Visual for promoting the SME WG members success stories

The preparations for the new SME brochure edition, encompassing the WG members profiles and their success stories, as well as the update of the “Find the SME you need”²³ page will start in September 2025. The brochure is expected to be released in February 2026.

6.2.3 Engagement with relevant SME initiatives: SCoDIHNet

The Smart Connectivity DIH network activities will follow a similar methodology as the one set during the previous period in the SNS OPS project. The main objective is to facilitate cooperation between technology providers, DIHs and end users. For that purpose, a number of collaborations with clusters and pan European SME organisations have been established and will be developed in order to build a catalogue of technology providers, end users, test beds and DIHs that will be positioned on a map to help all stakeholders to quickly know which are the relevant organisations at local level and facilitate development of collaborations between SMEs. There are plans to collect SMEs organisations from NetworldEurope, AIOTI, 6G-IA, EEN, ESNA and SCoDIHNet. In compliance with GDPR, the only organisations listed in the catalogue will be those which explicitly agree to being included.

The work plan for this task will be the following:

1. Extension of cooperation with SMEs organisations.
2. Completion and update of the SNS stakeholders’ catalogue.
3. Cooperation with the CEF 5G for Smart Community platforms.
4. Cooperation with the AIOTI test beds.
5. Cooperation with other DIHs Thematic networks (Photonics, Robotics, AI, ...).
6. Operation of the 2 service platforms supporting the DIHs operations.

With such a workplan, SNS CO-OP shall help SNS SMEs to cooperate with all stakeholders in order to facilitate collaborations in the context of the digitalisation of the European Industry and push innovative technologies, but also to collect end user industry requirements to feed the research agenda.

SNS CO-OP will continue to explore potential collaborations with other SME-related initiatives.

²³ NetworldEurope website, “Find the SME you need” page at: www.networldeurope.eu/find-the-sme-you-need-new-page/

7 Conclusions

This document provides a comprehensive description of the “**Stakeholder Identification & Involvement Strategy**”. It details the foundations and objectives of the Strategy and the corresponding activities for the duration of the SNS CO-OP CSA, whilst focusing on the first period of the project (January 2025 to March 2026).

The envisioned Strategy is a continuation of the work performed in the previous years by other CSAs but also includes a novel set of actions based on the lessons learnt as well as the new demands of the SNS community. All activities have been planned in careful alignment with the different parts of SNS CO-OP to optimise efforts and resources.

One of the key aspects of the Strategy is the engagement and cooperation with global stakeholders to build international consensus on 6G, keep the SNS JU community informed about global 6G advancements, and promote its work and outcomes across the globe. Likewise, strengthening and expanding the cooperation with peer JUs and European NIs, alongside relevant partnerships and associations, enriches the ecosystem with a multiplicity of perspectives and helps to harmonise objectives and initiatives. This close collaboration will foster a cohesive European approach to 6G development, streamline efforts, optimise resource allocation and amplify the impact of R&D at a continental scale.

Verticals and complementary domains are tackled through various actions, as their engagement is pivotal for strengthening European capacities, enabling and emerging technologies, sectors and value chains, and accelerating the digitisation of the European industry. In this respect, the support to standardisation efforts, including the work carried out in the VET, and the establishment of a fruitful dialogue with the vertical sector ecosystem are central to achieve this ambition.

The support to the NetworldEurope SME WG will remain focused on encouraging and facilitating the active involvement of its members in the SNS ecosystem. Reaching a 20% SME participation in the SNS JU projects as well as facilitating the contribution to high-level discussions, so that the specific circumstances of SMEs are duly considered, are among the priorities going forward. The cooperation with SCoDIHNet will remain another key point in order to facilitate cooperation between technology providers, DIHs and end users.

Coordinated efforts in 6G development ensure a unified, efficient and impactful approach to 6G development across Europe and ultimately, will contribute positively towards making Europe’s global digital leadership a reality.

References

- [1] SNS ICE, “Deliverable 2.1 – Identification of European 6G R&I stakeholders and trends”, Available https://smart-networks.europa.eu/wp-content/uploads/2024/09/sns-ice_deliverable-2.1-v2.0.pdf , [Accessed: 2025].
- [2] SNS ICE, “Deliverable 2.2 – Findings and trends from European 6G R&I initiatives”, Available https://ezywureyi7i.exactdn.com/wp-content/uploads/2025/01/deliverable_2.2_findings-and-trends-from-european-6g-ri-initiatives_v1.0-1.pdf , [Accessed: 2025].
- [3] SNS ICE, “Deliverable 2.3 –Evaluation of 6G R&I collaboration in Europe”, Available https://smart-networks.europa.eu/wp-content/uploads/2025/05/sns-ice_d2.3_evaluation-of-6g-ri-collaboration-in-europe_v1.0.pdf , [Accessed: 2025].