DECISION OF THE GOVERNING BOARD OF SMART NETWORKS AND SERVICES JOINT UNDERTAKING No 06/2025

On the approval of the Consolidated Annual Activity Report for the Year 2024

THE GOVERNING BOARD,

Having regard to Council Regulation (EU) 2021/2085 of 19 November 2021 establishing the Joint Undertakings under Horizon Europe[1], and notably the Smart Networks and Services Joint Undertaking (hereinafter "the SNS JU"), and in particular Articles 17(2)(p),19(4)(e), 20(7Xg), 21(7)(b), 26(1) and (2),

Having regard to the Financial Rules adopted by the SNS JU Governing Board on 15 December 2021 (GB decision 02-2021), and in particular Article 23 thereof,

Having regard to the SNS JU Governing Board Rules of Procedure, and in particular Article 10 thereof,

Having regards to the opinion of the States' Representatives Group,

WHEREAS

(1) The Executive Director shall report annually to the Governing Board on the performance of her duties for year N-1 in the form of a consolidated annual activity report

(2) The Consolidated Annual Activity Report 2024 of SNS JU includes the corresponding expenditure, a declaration of reasonable assurance from the Executive Director, acting as authorising officer, and an assessment by the SNS JU Governing Board.

(3) The States 'Representatives Group of the SNS JU was consulted and provided its positive opinion on 12 June 2025.

[1] This Regulation is also equally named "Single Basic Act (SBA)" or "Founding Regulation" in SNS JU documents. OJ L 427, 30.11.2021, p. 17.

(4) The Governing Board of the SNS JU received the proposed Final Consolidated Annual Activity Report 2024 on 05 June 2025 and should assess and approve it, including the corresponding expenditure and the declaration of reasonable assurance from the Executive Director.

HAS DECIDED AS FOLLOWS:

Article 1

The SNS JU Consolidated Annual Activity Report 2024, including the corresponding expenditure, the declaration of the Executive Director on reasonable assurance and the assessment by the Governing Board, annexed to this Decision, is hereby approved.

Article 2

The Executive Director shall make the Consolidated Annual Activity Report 2024 publicly available on the SNS JU's website.

Article 3

This Decision shall take effect on the day of its adoption.

Done at Brussels, on 16 June 2025.

For the Governing Board

Thibaut KLEINER
The Chair

Annex:
- SNS Joint Undertaking Consolidated Annual Activity Report 2024

6GSNS

Smart Networks and Services Joint Undertaking

(SNS JU)

Consolidated Annual Activity Report 2024

In accordance with Article 26 of the Council Regulation (EU) 2021/2085 of 9 November 2021 and with Article 23 of the Financial Rules of the SNS JU, the consolidated Annual Activity Report will be made available after its approval by the Governing Board

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Foreword

Dear Reader,

It is with great pleasure that I present to you the second Annual Activity Report of the Smart Networks and Services Joint Undertaking (SNS JU).

2024 marked important milestones for the Smart Networks and Services (SNS) Community and our Joint Undertaking. As we step into 2025, we do so at a pivotal time for Europe's digital connectivity landscape. The continued evolution of smart networks and services is not only a technological challenge, it is a strategic necessity for Europe's competitiveness, resilience, and future prosperity as highlighted in the Draghi report on EU competitiveness and by the newly appointed Von der Leyen Commission 2024-2029.

The SNS Joint Undertaking, created under Horizon Europe, continues to serve as a dynamic engine for research, innovation, and deployment. As a financially autonomous EU body, we've remained true to our mission: advancing Europe's technological leadership in next-generation networks, while firmly anchoring our progress in European values. This work would not be possible without the strong collaboration between the European Commission, the 6G Smart Networks and Services Industry Association (6G-IA), Member States and Associated Countries, international partners, and a vibrant, growing community of public and private stakeholders.

2024 was a year of growth. Our team has expanded to meet the demands of an ambitious programme, and the European 6G R&I initiative has successfully entered its second phase. With 79 projects now in our portfolio, we are making strong progress across both pillars of our mission: supporting the strategic deployment of 5G infrastructure and fostering the technological and industrial foundations for 6G.

Europe's ambition to lead in 6G is bold and clear. Our approach is holistic, extending beyond connectivity to include cloud-edge infrastructure, advanced microelectronics, and secure, sustainable, and inclusive technologies. The projects showcased in this report reflect the breadth and depth of our community's expertise, addressing key societal and political challenges, accelerating the digitalisation of verticals, and creating new business opportunities for Europe in the global technology race.

But beyond the technological frontier, we are equally focused on ensuring our networks and services reflect the values we stand for: competitiveness, security, resilience, sustainability, and openness. As we explore new cutting-edge domains such as AI, quantum, cybersecurity, and energy efficiency, these principles remain our guiding compass.

Looking ahead, the path to 6G leadership lies in building on our strong research base and turning that excellence into industrial strength. I am confident that the SNS JU, through its unique public-private partnership model, will continue to be a vital instrument in realising Europe's digital future.

To all our partners: researchers, industry leaders, SMEs and policymakers, thank you for your unwavering commitment. Together, we are not just imagining the future. We are building it.

Erzsébet Fitori

Executive Director


6GSNS

SMART NETWORKS AND SERVICES JOINT UNDERTAKING ("SNS JU")

Objectives

The European Smart Networks and Services Joint Undertaking ("SNS JU") is a European Public-Private Partnership under Horizon Europe that aims to facilitate and develop industrial leadership in Europe in 5G and 6G networks and services. The SNS JU funds projects that shape a solid research and innovation (R&I) roadmap and deployment agenda by engaging a critical mass of European stakeholders and facilitating international cooperation on various 6G initiatives.

The SNS JU has two main missions:

- **Fostering Europe's technology sovereignty in 6G** by implementing the related research and innovation (R&I) programme leading to the initial conception and standardisation. It encourages preparation for early market adoption of 6G technologies by the end of the decade. Mobilising a broad set of stakeholders is key to address strategic areas of the networks and services value chain. This ranges from edge- and cloud-based service provisioning to market opportunities in new components and devices beyond smartphones.
- **Boosting 5G deployment in Europe** in view of developing digital lead markets and enabling the digital and green transition of the economy and society.

In addition, the SNS JU has the following **General Objectives**:

- Foster Europe's technological leadership in future smart networks and services by reinforcing current industrial strengths and by extending the scope from 5G connectivity to the broader strategic value chain including cloud-based service provisioning as well as components and devices;
- Align strategic roadmaps of a wider range of industrial players, including not only the telecommunication industry, but also actors from the Internet of Things, cloud, and components and devices;
- Advance European technological and scientific excellence to support European leadership to shape and master 6G systems by 2030;
- Strengthen the deployment of digital infrastructures and uptake of digital solutions in the European markets, in particular by ensuring a strategic coordination mechanism for the CEF2 Digital programme as well as synergies within CEF2, and with DEP and InvestEU as part of the scope and governance of the Smart Networks and Services Joint Undertaking;
- Prepare the European smart networks and services supply industry for the longer-term opportunities emerging from the development of vertical markets for 5G and later 6G infrastructures and services in Europe;
- Facilitate digital innovation, by 2030, meeting European market needs and public policy requirements, including the most demanding requirements of vertical industries, as well as societal requirements in fields including security, energy efficiency and electromagnetic fields;
- Support the alignment of future smart networks and services with Union policy objectives including European Green Deal, network and information security, ethics and privacy, as well as a human-centric and sustainable internet

Objectives

The SNS JU has also the following **Specific Objectives**:

- Facilitate the development of technologies able to meet advanced communication requirements while supporting European excellence in smart networks and services technologies and architectures and their evolution towards 6G, including strong European positions on standards, essential patents, and key requirements such as requirements for spectrum bands needed for future advanced smart network technologies;
- Accelerate the development of energy-efficient network technologies with the aim of significantly reducing the energy and resource consumption of the whole digital infrastructure by 2030 and decreasing the energy consumption of key verticals industries supported by smart networks and services technologies;
- Accelerate the development and widespread deployment of 5G and later 6G infrastructure in Europe by, in particular, promoting the coordination and strategic support of 5G deployment for Connected and Automated Mobility along cross-border corridors, by using the CEF2 Digital programme and by promoting deployment under CEF2, DEP and InvestEU;
- Foster a sustainable and diverse supply and value chain in line with the 5G Cybersecurity toolbox;
- Strengthen the positioning of the Union's industry in the global smart network and services value chain by creating a critical mass of public and private actors, in particular by increasing the contribution from software and Internet of Things actors, leveraging national initiatives and supporting the emergence of new actors;
- Support alignment with ethical and security requirements, including them in the Strategic Research and Innovation Agendas and providing input to the Union's legislative process as appropriate.

Legal Basis

Article 187 of the Treaty on the Functioning of the European Union and Council Regulation (EU) 2021/2085 of 19 November 2021 establishing the Joint Undertakings under Horizon Europe and repealing Regulations (EC) No 219/2007, (EU) No 557/2014, (EU) No 558/2014, (EU) No 559/2014, (EU) No 560/2014, (EU) No 561/2014 and (EU) No 642/2014

Executive Director

Erzsébet FITORI, Executive Director

Governing Board

The Governing Board is composed of five representatives from the 6G Smart Networks and Services Industry Association (6G-IA) and two representatives of the European Commission on behalf of the Union.

Representatives of the 6G-IA:

- Colin Willcock – Nokia (Chairman of the 6G-IA and Vice-Chair of the SNS JU Governing Board)
- Damir Filipovic – AIOTI
- David Kennedy – Eurescom GmbH
- Afif Osseiran – Ericsson
- Carles Anton-Haro – Centre Tecnològic de Telecomunicacions de Catalunya (CTTC)

Representatives of the European Commission:

- Pearse O' Donohue, Director, CNECT.E – Future Networks DG CNECT, Chair of the SNS Governing Board, succeeded from April 2025 by Thibaut Kleiner, Director of Directorate E,
- Agustín Díaz-Pinés, Deputy Head of Unit, Unit E1 "Future Connectivity Systems", DG CNECT, succeeded from April 2025 by Miguel González Sancho, Head of Unit "Future Connectivity Systems", DG CNECT.

Other bodies

States Representatives Group

Stakeholders Group

(smart-networks.europa.eu/gouvernance)

Staff number

16 staff members recruited and the Executive Director

Voted Budget 2024

Commitment appropriations (in €): **132.609.699**

Payment appropriations (in €): **132.833.731**

Total budget available 2024

Commitment appropriations (in €): **132.609.699**

Payment appropriations (in €): **132.833.731**

Total budget implementation

Commitment appropriations: 130.893.763 (in € and percentage spent on total)

Title 1 – EUR 2.014.856 (1,54%)

Title 2 – EUR 493.494 (0,38%)

Title 3 – EUR 128.385.413 (98.08%)

Payment appropriations: 128.138.113 (in € and percentage spent on total)

Title 1 – EUR 1.977.789 (1,54%)

Title 2 – EUR 547.806 (0,43%)

Title 3 – EUR 125.612.518 (98,03%)

Grants/ Tenders/ Prizes

15 Grant Agreements were signed in 2024 under Call 3 for a total value of 123.880.385€. The grant number 16 under Call 3 will be signed in 2025. Contribution in a project of a synergy Call 2024 for EUR 1.000.000.

Strategic Research & Innovation Agenda

The Governing Board adopted the SNS JU's Strategic Research and Innovation Agenda (SRIA) 2021-2027 on 15 December 2021 and amended it on 13 November 2023 (GB Decision 20-2023) following a public consultation in November 2022.

(sns-ju-sria-2021-2027-second-edition-2023.pdf)

Call implementation

Number of calls launched in 2024: **1**

Number of proposals submitted: **109**

Number of eligible proposals: **107**

Number of proposals granted: **16**

Number of global project portfolio up to end of 2024 (cumulative): **79 projects**

Participation, including SMEs

Total number of beneficiaries in funded projects in the three SNS Calls: 1244 beneficiaries (**505 Unique beneficiaries**) [1] of which:

- **26 % of SMEs** and 24,1 % of EU funding received by those SMEs [2]
- **60 % total beneficiaries** from Private for-profit entities (excluding Higher or Secondary Education Establishments) receiving 50% of the EU funding (62,7% unique beneficiaries)
- **6,1 % of non-EU entities from non-Associated Countries** (90% Member States, 3,9% AC). Figures are based on total beneficiaries; UK is not considered as AC for Call 1 and 2
- **20,2 % of non 6G-Industry Association (6G-IA) members** (total beneficiaries)
- **41,2 % of non 6G-Industry Association (6G-IA) members** (unique beneficiaries)
- 6G-IA members have increased considerably from 2023 to 2024.

[1] In #Beneficiaries, a legal entity is counted every time it participates in an SNS project while in # Unique beneficiaries its participation is counted only once irrespectively the number of SNS project the legal entity participates.

[2] Not including EU funding received by SMEs through FSTP which, in most cases, favours the SME participation.

Executive Summary

This 2024 Annual Report marks a pivotal moment in the journey of the Smart Networks and Services Joint Undertaking (SNS JU), as we advance steadily into the implementation of Europe's vision for 6G. This year has been characterised by significant achievements across our strategic, operational, and governance pillars, reinforcing the SNS JU's central role in shaping future digital infrastructure. Notably, 2024 has also been the first full year of autonomous operations for the SNS JU, following the successful transition from its start-up phase. This milestone underscores the maturity of the organisation and its capacity to deliver high-impact results.

Four key dimensions of our activity defined the year:

Implementation of the SNS Annual Work Programme

The SNS JU successfully executed its 2024 Annual Work Programme, culminating in the launch of Call 3, which closed with a robust portfolio of 109 high-quality proposals. Following a rigorous and competitive evaluation process, 15 new Research and Innovation (R&I) projects and 1 Coordination and Support action (CSA) were selected and commenced as of January 2025. These projects complement the 35 projects from Call 1 (launched in 2022) and the 28 from Call 2 (launched in 2023), bringing the total number of SNS JU projects to 79. Since its inception in 2022, the SNS JU has successfully launched three calls for projects, with a cumulative investment of over €500 million. These projects cover a wide range of technologies, and 6G use cases across more than 11 vertical sectors (e.g. transport, health), advancing Europe's technological sovereignty in next-generation connectivity.

Notably, Call 3 also marked the launch of 2 new international collaboration projects under the SNS JU, with dedicated initiatives involving Japan and South Korea, establishing new bridges for global cooperation in 6G R&I. In addition, the SNS JU implemented a synergy call in collaboration with Europe's Rail JU, reinforcing cross-sectoral innovation between digital infrastructure and rail transport.

Furthermore, during 2024, the SNS JU developed the 2025 Research and Innovation Work Programme, which sets the strategic direction for Call 4 and aligns with Europe's ambitions for digital leadership, sustainability, and competitiveness.

Support to Project Operations

In 2024, the SNS JU provided consistent and tailored operational support to its growing portfolio of projects, helping to maximise impact, promote knowledge sharing, and encourage collaboration within the European R&I ecosystem. The programme's diverse community of more than 500 unique beneficiaries, with around 25% SME participation, demonstrates the breadth and inclusivity of its stakeholder base.

SNS JU activities were strongly represented at major events, including:

- **Mobile World Congress (MWC) 2024**: The SNS JU hosted the high-level session "6G Horizon – Bridging Perspectives for a Sustainable Future", spotlighting Europe's leading role in shaping the next generation of connectivity.
- **EuCNC & 6G Summit 2024**: Held in Antwerp, Belgium, the event welcomed over 1,000 delegates from 40+ countries and featured more than 50 exhibitors. It served as a major platform to showcase project results and foster dialogue across sectors. The next edition is scheduled for June 2025 in Poznan, Poland.
- **Cooperation**: both internationally and among projects was actively fostered through a series of dedicated workshops and joint initiatives, including thematic sessions on architecture, security, and AI integration.
- **Sustainability**: both at the programme level and within individual projects. These priorities were reflected in the publication of several White Papers and the development of Key Values (KVs) and Key Value Indicators (KVIs), guiding a more responsible and inclusive approach to technological innovation.

Programme Governance and Stakeholder Engagement

The governance structure of the SNS JU continued to demonstrate its effectiveness, transparency, and inclusiveness. Over the course of the year, four Governing Board meetings and four State Representatives Group (SRG) meetings were successfully organised. These ensured strategic oversight and alignment with evolving policy objectives.

In 2024, the Governing Board further strengthened its strategic direction by establishing two dedicated Working Groups:

- The Policy Working Group, and
- The 5G for Connected and Automated Mobility (5G4CAM) Working Group.

Co-led by the European Commission and the 6G-IA, with support from the SNS JU, these Working Groups play a key role in aligning policy and deployment efforts.

The Policy Working Group is particularly focused on fostering collaboration around two essential topics: 6G standardisation and the convergence of connectivity and cloud computing, both of which are critical for Europe's technological sovereignty and future digital infrastructure.

Several regular meetings have taken place across both Working Groups, yielding tangible outcomes, including the adoption of the updated Strategic Deployment Agenda (SDA) for Rail in 2024. These developments reflect the SNS JU's growing ability to align research with policy and practical deployment.

Financial Investment and Impact

In 2024, the SNS JU committed €130 million to cutting-edge R&I projects under Call 3. This investment is part of a cumulative budget of over €500 million across the three calls to date. The new projects launched in 2025 address higher-TRL solutions, sustainability, and microelectronics, contributing directly to standardisation, innovation, and industrial competitiveness. These investments not only catalyse technology development but also support strategic objectives around sustainability, inclusion, cybersecurity, and the integration of Key Values (KVs) and Key Value Indicators (KVIs) into future connectivity systems.

As we reflect on the accomplishments of 2024, our first year operating in full autonomy, it is clear that the SNS JU is well-positioned to lead Europe into the next generation of connectivity. By driving the development of 6G technologies and services, Europe not only reinforces its leadership in established domains but also pioneers innovative capabilities in emerging sectors. This proactive strategic foresight strengthens our competitive edge in a rapidly evolving technological landscape, ensuring sustainable growth and cementing Europe's status as a global leader.

SNS JU's Key Performance Indicators (KPIs) show our projects are delivering progress in several areas including energy efficiency, ubiquitous coverage, security and resilience, industry uptake, and contributions to standards and open platforms. We are moving beyond isolated achievements to a programmatic level impact, showing that coordinated public-private investment delivers real results, including over 1000 contributions to standardization activities (e.g. contributions to new and revised standards, participations in committees and groups etc.) and a strong involvement of SMEs from the selected projects that received around 24% of the funding budget so far. The impact of the SNS JU program is also corroborated by its scientific excellence with more than 1200 publications to date - way above the target of 400 publications expected by the end of 2025 - and by its success in focusing research activities on the development of energy efficient networks with 44% of the SNS Research & Innovation actions working on energy efficient technologies for B5G and 6G today.

1 Implementation of the Annual WORK PROGRAMME 2024

The Smart Networks and Services Joint Undertaking (SNS JU) is a Public-Private Partnership established under Council Regulation (EU) 2021/2085 (Single Basic Act).[1]

The main goal of the SNS JU is to define and implement the research and innovation roadmap and work program that will enable Europe to lead in the creation of the next generation of smart network technologies and services. These will be designed and implemented in such a way that European values like security and privacy are safeguarded, and European technological sovereignty is further strengthened.

These objectives can be achieved by the successful implementation of the Annual Work Programme that intends to mobilise European stakeholders, establish cross-sector collaboration, and ensure that Europe is positioned as the centre of gravity for international collaboration on 6G technologies.

1. Council Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe, Official Journal of the European Union, L 427, Pages 17-119

The SNS JU R&I Work Programme 2024 has grouped the technological topics to be researched into 3 complementary streams:

- **Stream B**: it covers research for revolutionary and evolutionary technology advancements, in preparation for 6G and revolutionary and evolutionary advancements including IoT, devices and software.
- **Stream C**: it focuses on SNS Enablers and Proof of Concepts (PoCs) as considered in different use and problem contexts from different verticals, used to further develop and consolidate experimental infrastructure(s), in support of the various phases of the SNS Partnership.
- **Stream D**: it targets large-scale SNS Trials and Pilots with Verticals, including the required infrastructure. The aim is to explore and demonstrate technologies and advanced applications and services for the vertical domains.

In addition, the SNS JU 2024 Work Programme foresaw the need for a Coordination and Support Action (CSA). This performs the core activities of the SNS programme organisation and operation of the working structures of the initiative, including the supporting infrastructures inherent within it, and the communication dimensions. This CSA project would also act as the Global ambassador for the SNS initiative.

SNS JU **Work Programme Structure**

1.1 Key objectives 2024, associated risks and corrective measures

In 2024, the SNS JU launched the third Horizon Europe call for proposals (HORIZON-JU-SNS-2024), with three complementary streams:

- **Stream B**. This Stream targeted low to medium TRL in WP 2024, although slightly higher TRL in WP 2024 compared to WP 2023, with the objective of delivering innovative solutions towards real-life sustainable networks in a long-term period, notably through PoCs.
- **Stream C**. Stream C developments in WP 2024 were mainly focused on the integration of microelectronics and photonics, developed by related partnerships, in 6G experimental infrastructures.
- **Stream D**. During the second SNS phase, Stream D projects are expected to mostly rely on SNS Phase 1 technologies and especially the infrastructures to be developed from Stream C projects. The goal is to gradually incorporate innovative 6G functionalities. From the societal point of view, stream D will highlight sustainability evaluations across verticals, validating exploitation of 6G across different vertical sectors.

These three Streams were complemented by one CSA aimed at supporting EU wide synergies and directionality as well as international cooperation (EU-JP and EU-KOR). Furthermore, there were provisions for a common call, EU-RAIL – SNS SYNERGY: Digital & Automated testing and operational validation of the next EU rail communication system.

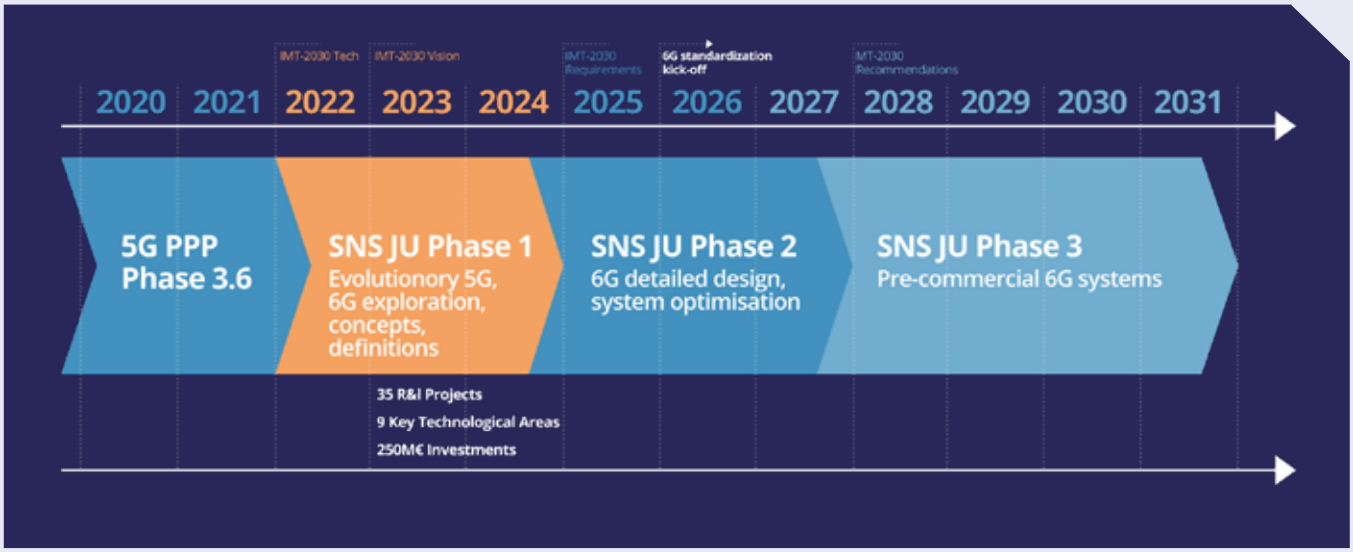
In total, the SNS JU selected and signed Grant Agreements for the third batch of 15 projects that started as of January 2025.

The estimated EU expenditure for this call was EUR 128[2] million.

2. The amount is not comprehensive of 1 million EUR contribution to the SNS/EU RAIL Synergy Call

The SNS JU considered two risks for the year 2024:

- Mobilisation of the stakeholders and understanding of the SNS JU model. This risk has been mitigated through the planning of information events (e.g., information day, brokerage events that took place in January 2024) and public presentations of the programme. In 2024, several informal events took place to raise awareness of stakeholders and to increase their preparedness. This has been amplified through Member States informal meetings, in view of relaying information and awareness at national level. As a result, the number of unique new participants for Call 3 selected projects was 43%. This is a successful indication of the mobilization of the community and expansion towards a new and bigger stakeholder base.
- Slow start and delays in launching calls. This risk has been mitigated by a structured dialogue between the European Commission, the SRG and private stakeholders in view of making all call information available in time for an early opening in 2024. In addition, strong efforts were made by the SNS JU team to deal with technical challenges and to accommodate all requests in due time (e.g., Preparing a detailed FAQ, answering all relevant community questions). The SNS JU succeeded to launch its call for proposal on 16 January 2024 and closed on 18 April 2024.



1.2

Research & Innovation activities/achievements

In 2024, the SNS Research & Innovation activities focused on:

1

The **implementation of the third SNS call of proposals** (HORIZON-JU-SNS-2024) and the actions for the signature of the Grant Agreements of the retained proposals. The third SNS call for proposal was based on the SNS R&I Work Programme 2024 that was adopted by the Governing Board on 23 November 2023 and was published on the F&T portal on 6 December 2023. The SNS JU selected 16 R&I projects and signed 15 Grant Agreements in 2024, with a start date of 01/01/2025. Given that the retained project under stream STREAM-B-05 (International Collaboration – EU-JP) targets a closer collaboration with Japan and is expected to work with a relevant initiative funded by the Japanese Ministry of Internal Affairs and Communications (MIC) and the Japanese National Institute of Information and Communications Technology (NIST), the EU-funded 6G MIRAI and the JP-funded HARMONY project agreed to synchronize their work with a later start date for the two projects, set on 1st of April 2025.

2

The **management, control and monitoring of 63 projects coming from the first and the second SNS call of proposals** (HORIZON-JU-SNS-2022 and HORIZON-JU-SNS-2022).

The 35 Call 1 projects, which started early 2023, entered their second year of implementation, while the 28 Call 2 projects initiated their activities in 2024. Both Call 1 and Call 2 projects aim at developing smart communication components, systems and networks for 6G, following both an evolutionary path through further enhancements of 5G advanced technology as well as a more revolutionary path by investigating the benefits of promising technological enablers.

These projects also bring technology validation initiatives, by developing SNS experimental infrastructures (including federated and consolidated infrastructures) in support of the various faces of the SNS programme. Several projects are also carrying out large-scale SNS trials and pilots in several business and industrial sectors (such as the media, industrial IoT, energy, construction, automotive, eHealth, culture, agriculture, smart cities and education sectors). In the second Call several projects are working towards the advancement of European microelectronics in providing solutions for next-generation communication networks and devices. In addition, one project is fostering a strong EU-US research cooperation focusing on critical 6G technologies, particularly those that integrate Artificial Intelligence (AI).

The Call 1 Coordination and Support Action (CSA) projects continued to work on the operational aspects of the SNS Partnership, with the continuation of dialogues with EU initiatives (e.g. related partnerships and national initiatives), Peer Partnerships (e.g. HPC, KDT, AI, Data and Robotics, Photonics Europe, CCAM, etc.) and Associations (e.g. 5GAA and 5GACIA) as well as with the development of synergies with other Countries and Regions promoting SNS results and achievements at a global level and working towards the development of global standards. The Call 2 CSA addresses broader societal implications of 6G to ensure that technological advancements align with societal needs and benefits.

3

The **preparation of the SNS R&I Work Programme for 2025** and the 2025 SNS calls for proposals (HORIZON-JU-SNS-2025). On 22 November 2024, the Governing Board adopted the SNS R&I Work Programme for 2025 (with the pending eligibility section) with an earmarked public funding of €128 million. The 2025 calls for proposals continue the 2nd phase of the SNS JU R&I activities.

The SNS R&I WP2025 addresses the technological and business realisation underpinning the ITU vision and the updated industrial 6G vision, targeting massive digitisation of societal and business processes through intelligent connectivity across the human, physical and digital world. The focus of 6G R&I in the WP2025 covers enabling technologies with dedicated prototyping and experimentation towards (sub)system R&I, whilst leaving room for long-term R&I on disruptive concepts (e.g., academics driven).

The SNS R&I WP 2025 includes the following three complementary streams:

Stream B: it covers research for revolutionary and evolutionary technology advancements, in preparation for 6G and revolutionary and evolutionary advancements including IoT, devices and software. A dedicated Topic on the design, development and testing of a Front-End Module (FEM) is also included. This Stream targets both low-medium TRLs leveraging WP 2024 with the objective of delivering innovative solutions towards real-life networks in a short to medium-term period and also low TRL targeting forthcoming 6G / disruptive technologies in a long-term period.

Stream C: Stream C developments in WP 2025 have a particular focus on 6G Telco Cloud and service experimental platform, using Open-Source technologies and addressing long-term R&I challenges of the "Connected Collaborative Computing" (3C) Networks, bringing together an ecosystem that spans over the entire computing continuum, from semiconductors and radio technologies to connectivity infrastructure, data management, and applications..

Stream D: it targets SNS Trials and Pilots with Verticals, including the required infrastructure. The aim is to explore and demonstrate technologies and advanced applications and services for the vertical domains.

The submission, evaluation and selection of the upcoming Call projects will take place in 2025.

4

SNS JU SRIA update: According to Article 17 of the Single Basic Act establishing the Joint Undertakings under Horizon Europe, the Governing Board (GB) adopts the Strategic Research and Innovation Agenda (SRIA) at the beginning of the initiative and amends it throughout the duration of Horizon Europe, where necessary. The SRIA identifies the partnership's targeted impact, foreseen portfolio of activities, measurable expected outcomes, resources, deliverables, and milestones within a defined timeframe. It shall also identify the other European partnerships with which the SNS JU shall establish a formal and regular collaboration and the possibilities for synergies between the SNS JU's actions and national or regional initiatives and policies based on information received by the participating states or the States' Representatives Group (SRG) as well as synergies with other Union programmes.

The initial SNS JU SRIA adopted by the SNS GB on 15 December 2021[3] and an updated version of the SNS JU SRIA (following collaboration between DG-CNECT, the SNS JU and the 6G-IA) was adopted by the SNS GB on 13 November 2023. During 2024, SNS OPS CSA project supported the production of the new NetworldEurope's SRIA, which will be taken into consideration and will be used as the basis for the revised SNS JU SRIA in 2025. NetworldEurope's SRIA has also considered input and results from the ongoing SNS projects and key research priorities, as defined during the SNS R&I WP2025 preparation and relevant thematic workshops. A public consultation for NetworldEurope's SRIA was launched in December 2024 and the final version will be published within 2025.

The SNS programme and its projects are steadily making outstanding progress and a concrete impact, as regularly highlighted in the SNS programme and projects websites and SNS news & newsletters. All impactful achievements are reflected in the significant SNS programmatic KPIs (sections 1.7 and Annex). In 2024 the programme has rapidly progressed, with the Steering Board (SB), Technology Board (TB), SNS Working Groups, and the SB Task Forces (Open Calls, Sustainability) all operating at full capacity. It has gained significant momentum, driving dynamic collaboration across projects. This is reflected in numerous publications/White Papers, cross-project workshops and active participation in major international conferences such as the ETSI Research Conference, EuCNC & 6GS 2024, the Global 5G Event, Globecom, and 5G Techritory in 2024. All 63 SNS Call 1 and 2 projects contributed actively to the SNS programmatic structures, while the new 16 Call 3 projects were fully onboarded beginning 2025. More details on SB, TB and WG achievements can be found under section 1.5.

Moreover, in 2024, the coordination and support action (CSA) projects (SNS OPS and SNS ICE) have developed and delivered significant tools to facilitate SNS researchers as well as the public, to track, classify and categorise the research taking place within SNS and to link it with associated partnerships and Standards Development Organizations (SDOs) via the SNS JU trackers suite, which comprises three distinct tools, namely the Vertical Engagement Tracker, the Standards Tracker and the KPI Radars. Through these tools, a comprehensive analysis of the different Trials taking place within SNS and the addressed vertical sectors can be obtained, as well as a full list of the standardisation contributions of SNS JU researchers and an overview of the achieved technical and programme level KPIs.

Within the SNS JU and besides the standard actions/projects, Open Call projects, **utilising the Financial Support to Third Parties (FSTP)** model, play a crucial role in expanding research collaboration and accelerating innovation in 6G. These projects provide opportunities for external stakeholders, including SMEs, universities, and research institutions, to contribute cutting-edge solutions to the broader SNS ecosystem. The Open Calls focus on various aspects of 6G development, such as network automation, AI-driven orchestration, security, joint communication and sensing, use cases and verticals, large scale trials and pilots, and sustainable network design. Selected projects integrate their research into ongoing SNS initiatives, ensuring alignment with European 6G priorities and fostering a diverse, multi-stakeholder approach. The Open Calls launched by Stream C/D projects also support experimental validation through SNS testbeds and large-scale trials, allowing participants to test their technologies in real-world use cases and conditions. These projects significantly

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enhance the collaborative and competitive landscape of 6G research, ensuring that Europe remains at the forefront of next-generation network development. 6G-SANDBOX, 6G-XR, TARGET-X, Imagine-B5G, FIDAL, 6G-BRICKS, 6G-PATH and TrialsNet, launched Open Calls within 2023 and 2024. Open Calls have been very successful, attracting many applicants from a wide range of countries. So far, 180+ Trials and Pilots have been launched by 200+ projects with a budget of more than 26 million euros for 20 Open Calls (3 per project except only 1 for 6G-PATH and 2 for 6G-BRICKS) and 280+ third parties involved. The Open Calls Task Force is currently working on a report paper with summaries of the results of Open Call projects, which will be published within 2025.Regarding **key achievements** at the programme level, the following (non-exhaustive) list testifies to the SNS programme's tremendous momentum and dynamism in 2024:

EU stakeholders presented unified proposals for 6G use cases at the 3GPP SA1 meetings regarding the standardisation and prioritisation of 6G use cases from EU stakeholders (SNS projects, National Initiatives, industry, academia, SMEs), impacting the direction of 6G standardisation, led by SNS ICE and Hexa-X-II.

The Open Calls Task Force operating under the SB, coordinating the participation of 3rd party experimenters within the SNS JU, and synchronising 145 experimenters, from 22 different countries, addressing 15 different vertical sectors.

Sustainability R&I developments (including the relevant publications, workshops and important ongoing work on the definition, evaluation and implementation of Key Value Indicators-KVIs) and the Sustainability TF operating under the TB, coordinating the work of 27 Call 1 and Call 2 projects actively working on sustainability solutions for 6G and 6G for sustainability, analysing the methodologies, approaches and metrics used by the researchers (See section 1.5).

The impactful SNS publications (scientific publications, White and position papers) that provide insights into the key findings and insights gained by the SNS community and help shape the future of 6G on a global scale. In 2024 significant white papers have been published or prepared, aggregating the lessons learned and insights from the majority of SNS projects (See sections 1.5 and 1.7).

SNS programme and projects' strong contributions to MWC 2024 including SNS Session and exposure for 20+ projects at partners/organisations' booths and stands. Projects' significant contributions to other key international Events, such as the ETSI Security Conference 2024, the EuCNC & 6GS 2024, 5G Techritory 2024, Global 5G Event 2024, Globecom 2024. More details on the main SNS Events can be found under section 2.1.

Several cross-cutting project workshops, e.g. SAFE-6G, 6G-SANDBOX, ENVELOPE, ECOeNET, ORIGAMI and 6G-EWOC at IEEE CAMAD, 6G-TWIN, BeGreen, CENTRIC, 6Green, 6G4Society and Hexa-X-II 6G Series Virtual Workshops including international presentations from different regions, facilitating international collaboration on 6G R&I. (See section 1.7).

1.3 Calls for proposals, grant information and other funded actions

Synergies between EU-Rail and SNS JUs

In accordance with the Council regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe (recitals 10 and 12 and Article 5(2) c)), to achieve maximum impact, the Joint Undertakings should develop close synergies with other Horizon Europe initiatives and other Union programmes and funding instruments, particularly with those supporting the deployment of innovative solutions. Following the identification of synergies between them, Joint Undertakings should determine budget shares, which should be used for complementary or joint activities between them. Under this basis, the EU-Rail and Smart Networks and Services (SNS) Joint Undertakings, based on an identified synergy area, agreed to launch a call "***HORIZON-ER-JU-2024-FA2-SNS***: EU-RAIL – SNS SYNERGY: Digital & Automated testing and operational validation of the next EU rail communication system", with a contribution of up to EUR 1 000 000 from the SNS JU budget.

Horizon-JU-SNS-2024

The third call for proposal was launched on 16 January 2024 and closed on 18 April 2024.

It included the following topics:

- SNS-2024-STREAM-B-01-01/02/03/04/05/06/07/08
- SNS-2024-STREAM-C-01-01
- SNS-2024-STREAM-D-01-01
- SNS-2024-STREAM-CSA-01.

The types of actions were HORIZON-JU-RIA, HORIZON-JU-IA, HORIZON-JU-CSA.

The number of proposals received in response to this call was 109. Out of the 109, two were found ineligible. The scientific and ethics evaluations took place in May, June and July 2024. The evaluation results and the ranking list were presented to the Governing Board on 15 July 2024 and to the SRG on 14 November 2024. Following approval of the list of Grants selected for funding by the Governing Board, the following projects were retained and will start in 2025:

1- HORIZON-JU-SNS - Stream B
Research for revolutionary and evolutionary 6G Technology and systems

Covers research for revolutionary and evolutionary technology advancements, in preparation for 6G and revolutionary and evolutionary advancements including IoT, devices and software. This Stream targets low to medium TRL in WP2024, although slightly higher TRL in WP 2024 compared to WP 2023, with the objective of delivering innovative solutions towards real-life sustainable networks in a long-term period, notably through PoCs.

B-01-01: SYSTEM ARCHITECTURE

1. **FLECON 6G**: Flexible Open Architecture and AI-driven Enabling Technologies for a Novel 6G Connectivity Platform.
   It aims to make the "Intelligent 6G Network of Networks" vision a reality, with Trustworthiness and Generalisability of Native AI and Network Digital Twins (NDT) assisted approaches.
2. **UNITY 6G**: UNified archITecture for Open RAN-enabled Distributed, Scalable and SustainabilitY-enhanced 6G Networks
   It aims to create a highly sustainable and scalable integrated AI-native architecture that can support the diverse requirements of 6G networks by relying on advanced technologies.

B-01-02: WIRELESS COMMUNICATION TECHNOLOGIES AND SIGNAL PROCESSING

3. **6G-LEADER**: LEArning-Driven and Evolved Radio for 6G Communication Systems
   It aims at evolving the PHY and RAN aspects of 6G communication networks by relying on pillars such as inter alia, ML-empowered PHY algorithms, full-duplex transceivers.
4. **MultiX**: Advancing 6G-RAN through multi-technology, multi-sensor fusion, multi-band and multi-static perception
   It aims to revolutionize the 3GPP RAN design and operation by developing a pioneering fusion Perceptive 6G-RAN system that will support an integrated multi-sensor, multi-static, multi-band, and multi-technology.

B-01-03: COMMUNICATION INFRASTRUCTURE TECHNOLOGIES AND DEVICES

5. **AMBIENT-6G**: Towards standardized 6G connectivity for ambiently-powered energy neutral IoT devices
   It proposes a new class of energy-neutral devices that will be connected to the IoT through novel ultra-low-power 6G technologies.
6. **NexaSphere**: NexGen 3D Networks Spin Harmonies across 6G, AI, and unified TN/NTN
   It aims to create a system capable of facilitating a 3D network of networks. It aims to deliver societal benefits to the future European landscape, with a particular focus on mobile transportation, smart cities, and communities beyond the year 2030.

B-01-04: RELIABLE SERVICES AND SMART SECURITY

7. **MARE**: Programmable, Modular and Disaggregated Security Plane for 6G Ecosystems
   It aims to contribute to create a reliable 6G services provisioning platform through the definition of a novel security plane built on a well-defined set of open and programmable security functions.
8. **XTRUST-6G**: Extended zero-trust and intelligent security for resilient and quantum-safe 6G networks and services
   It aims to establish a robust security framework for 6G ecosystems, underpinned by the zero-trust principle and emphasizing core tenets like resilience, privacy, and dependability.

B-01-05: INTERNATIONAL COLLABORATION – EU-JP

9. **6G-MIRAI**: Machine Intelligence based Radio Access Infrastructure
   It aims at developing reliable and robust AI-native wireless communication systems that enable the practical exploitation of the full potential of the latest physical layer technological advances.

B-01-06: INTERNATIONAL COLLABORATION – EU-ROK

10. **6GARROW**: 6G Ai-native integRated Ran-cOre netWorks
    It aims to unlock new levels of efficiency, flexibility, and performance by leveraging AI technologies at the heart of RAN and integrating devices seamlessly into network architectures.

B-01-07: SUSTAINABILITY LIGHTHOUSE

11. **SUSTAIN-6G**: SUSTainability-Advanced and Innovative Networking with 6G
    It aims to develop a holistic sustainability framework in the context of 6G, addressing all the environmental, societal and economic sustainability areas.

B-01-08: RELIABLE AI FOR 6G COMMUNICATION SYSTEMS AND SERVICES

12. **6G-DALI**: 6G DAta and ML operations automation via an end-to-end AI framework
    It aims to deliver an end-to-end AI framework for 6G, structured in two interdependent pillars, (1) AI experimentation as a service via MLOps and (2) Data and analytics collection and storage via DataOps.

2 - HORIZON-JU-SNS - Stream C
Smart Network & Services experimental infrastructure

Focuses on SNS Enablers and Proof of Concepts (PoCs) as considered in different use and problem contexts from different verticals, used to further develop and consolidate experimental infrastructure(s), in support of the various phases of the SNS Partnership. Stream C developments in WP 2024 will mainly focus on the integration of microelectronics and photonics, developed by related partnerships, in 6G experimental infrastructures.

13. **X-TREME 6G**: X Transceivers & RF front-ends made in Europe's Microelectronics light house to Enable new 6G use cases. It aims to provide a foundational open microelectronics platform in Europe with the objective to create and design key disruptive next generation chiplets and chipsets for 6G use cases.

3 - HORIZON-JU-SNS - Stream D
SNS Large Scale Trials and Pilots (LST&Ps) with Verticals

Targets large-scale SNS Trials and Pilots with Verticals, including the required infrastructure. The aim is to explore and demonstrate technologies and advanced applications and services for the vertical domains. During the second SNS phase, Stream D projects are expected to mostly rely on SNS Phase 1 technologies and especially the infrastructures to be developed from Stream C projects. The goal is to gradually incorporate innovative 6G functionalities. From the societal point of view, stream D will highlight sustainability evaluations across verticals, validating exploitation of 6G across different vertical sectors.

14. **6G-VERSUS**: 6G Vertical trials for Sustainability
    It aims to introduce a novel methodology, transforming existing use cases into 6G applications, comprising Vertical App (V-App), Network App (N-App), and AI-assisted App (AI-App).
15. **AMAZING-6G**: Amazing Large-Scale Trials and Pilots for Verticals in 6G
    It proposes a novel set of 14 use cases in the domains of Healthcare, Public Safety, Energy and Transport (including Rail) which will be showcased in large-scale trials and pilots across Europe.

4 - HORIZON-JU-SNS-STREAM CSA
Coordination and Support Action

Performs the core activities of the SNS programme organisation and operation of the working structures of the initiative, including the supporting infrastructures inherent within it, and the communication dimensions. This CSA project will also act as the Global ambassador for the SNS initiative.

16. **SNS CO-OP**: SNS COLLABORATIVE OPERATIONS AND OUTPUT OPTIMISATION
    It aims to orchestrate and organise strategic activities to capture and promote the European Industry view on 6G, the achievements of the 6G SNS initiative and projects, and to promote the ambitions of the SNS JU.

Breakdown of Beneficiaries

The following table shows, for the 109 proposals received, a detailed breakdown of the number of beneficiaries per stream.

	N° of proposals	N° of beneficiaries
Stream B	96	1548
Stream C	2	34
Stream D	10	290
CSA	1	22
Total	109	1.894

The following table shows, for the **16 projects retained**, a detailed breakdown of the number of beneficiaries per stream.

	N° of proposals	N° of beneficiaries
Stream B	12	201
Stream C	1	19
Stream D	2	64
CSA	1	22
Total	16	306

Breakdown per country

The following table provides, for the **107 eligible proposals** that have been evaluated and for the **16 retained projects**, an overview of the number of beneficiaries per country.

Participant Country Code	Participant Country Name	N° of Beneficiaries Proposals	N° of Beneficiaries Retained projects	% Success Rate	Grant (€)	% Grant	Projects
DE	Germany	214	33	15.4%	18,663,157	14.7%	13
EL	Greece	236	41	17.3%	17,192,506	13.5%	13
FR	France	143	34	23.7%	16,990,946	13.4%	15
ES	Spain	251	42	16.7%	16,152,891	12.7%	13
IT	Italy	159	39	24.5%	12,451,576	9.8%	13
BE	Belgium	55	13	23.6%	7,684,034	6.1%	10
FI	Finland	65	13	20%	6,799,484	5.4%	8
UK	United Kingdom	146	9	6.1%	4,626,269	3.6%	6
CY	Cyprus	36	9	25%	3,333,025	2.6%	6
IE	Ireland	60	9	15%	3,243,986	2.6%	7
PT	Portugal	62	10	16.1%	3,241,236	2.6%	3
NL	Netherlands	43	4	9.3%	2,212,411	1.7%	4
RO	Romania	35	7	20%	2,122,821	1.7%	3
AT	Austria	27	4	14.8%	2,093,025	1.6%	3
LU	Luxembourg	20	5	25%	1,980,780	1.6%	3
SE	Sweden	47	3	6.3%	1,498,889	1.2%	3
PL	Poland	32	5	15.6%	1,376,063	1.1%	5
BG	Bulgaria	12	4	33.3%	1,347,488	1.1%	2
DK	Denmark	13	3	23%	1,314,384	1.0%	3
NO	Norway	6	3	50%	932,247l	0,7%	3
SI	Slovenia	13	2	15.3%	573,637	0,5%	2
EE	Estonia	8	2	25%	551,250	0,4%	2
CZ	Czechia	8	1	12.5%	333,125	0,3%	1
LV	Latvia	7	1	14.2%	182,250	0,1%	1
CH	Switzerland	31	5	16.1%	0	0,0%	3
IL	Israel	14	0	0%	0	0,0%	0
TR	Turkiye	49	0	0%	0	0,0%	0
HU	Hungary	3	0	0%	0	0,0%	0
RS	Serbia	8	0	0%	0	0,0%	0
JP	Japan	3	0	0%	0	0,0%	0
SK	Slovakia	10	0	0%	0	0,0%	0
LT	Lithuania	4	0	0%	0	0,0%	0
MT	Malta	1	0	0%	0	0,0%	0
US	United States*	2	0	0%	0	0,0%	0
MK	North Macedonia	1	0	0%	0	0,0%	0
KR	Republic of Korea*	7	5	71.4%	0	0,0%	0
MY	Malaysia	1	0	0%	0	0,0%	0
TW	Taiwan*	8	0	0%	0	0,0%	0
TOTAL		**1840**	**306**	**16.63%**	**126,897,478**	**100%**	**16**

*Existing international collaboration or partnership with the SNS JU

N° of proposals proposed for funding	16
N° of participants	306 (206 unique participants)
Total costs (incl. Associated Partners' costs)	EUR 142.866.098 €
Total Requested Grant	EUR 126.897.477,93 €
IKOP (based on latest 6G-IA Membership list)	10.723.942,20 € (8,45%)
N° of unique NEW participants	88 (43%)
SME Requested Grant	EUR 28.926.000 (23%)
N° of unique 6G-IA Members	122 (59%)
Type of beneficiaries	79% private entities

Breakdown by participant type

The following table gives an overview of the participant type in the **109 submitted proposals** and in the **16 retained projects**.

Among the 306 participants in the 16 retained projects, there are 206 different legal entities (unique beneficiaries). Moreover, 79% of the financial contribution is granted to the private beneficiaries and 21% to the public beneficiaries.

Proposals Type of beneficiaries	N° of Beneficiaries Received Proposals	N° of Beneficiaries Retained Proposals	% Total Retained
PRIVATE	**1432**	**241**	**79%**
Private for-profit entities (excluding Higher or Secondary Education Establishments)	1111	181	59%
Higher or Secondary Education Establishments	79	20	7%
Research Organisations	206	30	10%
Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments)	1	0	0%
Other	35	10	3%
PUBLIC	**462**	**65**	**21%**
Higher or Secondary Education Establishments	384	50	16%
Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments)	19	3	1%
Research Organisations	59	12	4%
Total	**1894**	**306**	**100%**

1.4 Evaluation procedures and outcomes

The evaluation of proposals for this call was carried out between 13 May 2024 and 12 July 2024, by the evaluation panel appointed by the responsible authorising officer, with the assistance of **77 external experts**. The evaluation panels were composed of external experts. The external experts were selected in a way to ensure a high level of skills, experience and knowledge in the areas of the call (including project management, innovation, exploitation, dissemination and communication and financial aspects). Special attention was given to achieve an appropriately balanced composition (skills, experience, knowledge, geographical diversity, gender, and private-public sector balance) and regular rotation.

For an overview on gender, geographic origin, and affiliation of the experts, see Annex 7.

As a result, out of the invited 77 experts:

37.66% were **women**.

48.05% came from **universities** and public or private research organisations.

38.96% were from **private commercial firms**.

25% were **new experts** (i.e., experts who have not participated in any evaluations over the last three calendar years).

25% were **brand new experts** (i.e., experts who have never participated in any EU evaluation).

The rotation rules that applied to the programme were respected. The evaluation procedure was also observed by one observer (i.e., independent external expert to advise on the conduct and fairness of the evaluation sessions, the application of the evaluation criteria and ways to improve the processes). The evaluation was made against the award criteria and evaluation rules as set out in the call conditions. The evaluation procedure followed the standard Horizon Europe approach with first an individual evaluation, followed by a consensus group and concluded with the Panel review.

1.5
Follow-up activities linked to past calls

Concerning this 2nd year of project implementation, SNS JU carried out all the necessary activities for the management, control and monitoring of 63 projects coming from the first and the second SNS call of proposals (HORIZON-JU-SNS-2022 and HORIZON-JU-SNS-2023). The 35 Call 1 projects, which started early 2023, entered their second year of implementation, while the 28 Call 2 projects initiated their activities in 2024. 37 project reviews took place and 35 Reporting and Payment workflows have been finalised in 2024. Moreover, 32 consortia-initiated amendments of the Grant Agreement were successfully concluded in 2024. The structure and set-up of the SNS JU programme is highlighted in section 1.2.

Project Collaboration

During the 2nd year of implementation for the SNS JU projects, a set of actions have been taken in collaboration with 6G-IA to ensure the continuation and strengthening of collaborative activities and synergies among our portfolio of projects:

- Revision of the **Collaboration Agreement (CoA) and signature of the new version by all Call 1 and Call 2 projects**.
- Continuation of the **SNS-Initiative Steering Board (SB) in the frame of the CoA**
- Continuation of the **SNS-Initiative Technology Board (TB) in the frame of the CoA**
- Set-up of the **Communications Task Force in the frame of the CoA**
- Continuation or set-up of **SNS JU project Working Groups (WGs)**
- Contribution to **SNS Industry Working Groups (6G-IA WGs), SNS Strategic Working Groups (SNS GB WGs) and NetworldEurope Working Groups**.

Regarding the SNS **Collaboration Agreement (CoA)**, participants of selected projects are requested to cooperate in the SNS programme for topics of common interests by signing a written agreement (called "collaboration agreement") referred in the specific provisions of the Model Grant Agreement (Annex 5 of the MGA). This agreement sets a framework and covers areas where close cooperation and coordination is needed (e.g. sharing of information, management of outputs, common approaches towards standardisation, common communication and dissemination activities, links with regulatory and policy activities, contribution to the impact monitoring, access

to results and background, etc.) and defines the rules for this cooperation (e.g. dispute settlement mechanisms, confidentiality arrangements, indemnification, etc).

This agreement must be signed by all beneficiaries and associated partners of the SNS JU funded actions and thus creates a partnership between all participants of closed and ongoing SNS JU funded actions, including actions funded under the same or different calls.

CoA has been prepared under the lead of the 6G-IA and was based on the earlier 5G PPP version, but significantly upgraded, to adapt it to the Model Grant Agreement of Horizon Europe (instead of H2020), and to clarify the benefits and obligations of all signatories to the collaborative bodies of the SNS initiative. Furthermore, the CoA has been revised in 2024 (following DG RTD consultation and SNS JU Governing Board decision) to apply to current and future SNS JU actions through specific provisions in the new Annex 5 of the MGA. Therefore, besides Call 2 project signatories, all Call 1 project beneficiaries & Associated Partners had to re-sign the CoA. The SNS CoA has been concluded between all Call 1 and Call 2 project unique parties by the end of 2024 and all 63 projects have been formally onboarded to the SNS JU collaborative activities.

In the context of the collaboration agreement, the following collaborative structures operated in 2024 and provided significant programmatic results:

Steering Board (SB):

The SNS Steering Board is the collaborative body of the Project Coordinators of all the active SNS JU projects. The SB was established in 2023 with representatives from the 35 projects under SNS Call 1. In 2024, it expanded to include representatives from the 28 projects under SNS Call 2. Following an update to the collaboration agreement, all agreements were finalized, enabling the integration of Call 2 projects in the SNS Initiative. These projects were subsequently asked to appoint their representatives to the SNS bodies and Working Groups (WGs).

To ensure continuous co-operation around engagements and events, including coordinating cross-project activities, a total of six SB meetings were held during 2024, including two physical meetings. The SB keeps the coordinators informed of WG status and engaged the projects in relevant WG activities. During the spring, scopes and terms were agreed for the SNS Project Working Groups (WGs): 6G Architecture; Test, Measurement and KPI Validation; Reliable Software Network; and Hardware Technologies. Another action, the Task Force on Open Calls, serves as a forum to identify issues, recommend mitigation measures and maintain a knowledge base of best practices for projects offering financial support to third parties. In February, the project presence in Mobile World Congress was supported. In June, the workshop on EU Collaborative Research & Innovation Focal Points was organized at EuCNC together with the SNS Technology Board and the four SNS Project WGs. In December, the first SNS Project WG white paper was published elaborating on network and service management advancements.

Technology Board (TB):

The SNS Technology Board is the collaborative body of the Technical Managers of all the active SNS JU projects, working on common technological issues, validating technologies and creating synergetic outcomes and insights based on the work taking place within the SNS JU. In 2024, representatives from the 63 active Call 1 and Call 2 SNS JU projects participated in the TB activities and collaboratively worked on several technical items, comparing approaches, sharing insights and exchanging lessons learned.

A key achievement during 2024 was the creation of the 2nd edition of the interactive SNS Reference Figure, mapping the 63 active SNS JU projects to the key technological enablers and network domains investigated within each project. Moreover, an in-depth survey was performed among all SNS JU projects developing AI mechanisms regarding the methodologies, approaches and data used, and the outcome was published as the 1st white paper from the SNS TB. A sustainability Task Force (TF) is also operating under the SNS TB since 2023, aggregating information regarding the sustainability targets, considerations and methodologies of the SNS JU projects. This extensive survey, comprising more than 60 questions, was performed in 2024 and its results will be published in 2025. Finally, the SNS TB has worked on several additional items within 2024, strengthening the collaboration among projects and generating synergies, such as the development support and population of the SNS trackers, the launch of Trials & Pilots

Brochure exercise (to be completed in 2025), the organization of collaborative events (workshops, sessions, panels, webinars) and the dissemination of project results & insights in relevant fora (conferences, technical meetings).

Communications Task Force (Comms TF):

The Comms Task Force is the body where the Dissemination and Communication Managers of the SNS projects meet. The meetings are organised as monthly online meetings. In the meetings, the Communication Managers report about planned or performed dissemination and communication activities of projects individually or of actions that are jointly organised together with other SNS projects. Besides reporting, the TF is also the forum where opportunities for joint dissemination and communication activities between projects can be identified and initiated. Listening to experiences from other projects gives also the chance to identify best practices and improve each owns ways of successfully performing these tasks, to maximise the impact of spreading news and creating awareness of SNS project activities and results.

SNS JU Working Groups (SNS JU WGs):

They are cross-project collaborations where the activities of multiple SNS JU projects are discussed by the representative project participants to converge and create positive synergies. The results of these discussions are published regularly as white papers. Working Groups originating from the SNS JU Projects and functioning in 2024 include:

1. 6G Architecture WG
2. Reliable Software Network WG
3. Test, Measurement and KPIs Validation WG
4. Hardware Technologies

6G Architecture WG focus in 2024 was on the finalisation of the first version of its white paper on 6G Architecture, collecting input from the 63 Call 1 and Call 2 projects. The WG was also very active organising or contributing to several workshops in international events (EuCNC&6GSummit, WCNC, GlobeCom).

Reliable Software Networks WG has released the first white paper coming out from an SNS JU WG (December 2024), which investigates Key Frameworks and Interfaces towards Open, Intelligent and Reliable 6G networks. The WG also supported the organisation and participated in the SNS4SNS event from ETSI, in November 2024.

Test, Measurement and KPIs Validation WG has been working in 2024 towards the finalisation of their first white paper (published later in February 2025), consolidating 6G KPIs from SNS JU projects, providing definitions, target values, and context to shape the 6G vision.

Hardware Technologies WG was set-up in 2024, but its main activities will be launched within 2025. It encompasses all interested projects that target research and innovation in the areas of systems, components, materials and chipsets. This WG targets to establish connections and be aligned with the CHIPS JU projects and pilot lines, strengthening the synergy activities between the JUs.

Besides the above SNS JU WGs, SNS JU projects participated and contributed to various Working Groups within the SNS Community: i) SNS Industry Working Groups (6G-IA WGs), established under a mandate from the 6G-IA, ii) SNS Strategic Working Groups (SNS GB WGs, participation by invitation only) established under the mandate of the SNS JU Governing Board (GB), iii) WGs under the mandate of NetworldEurope. In this context, within 2024, SNS JU projects significantly contributed to several reports and white papers, such as the 6G-IA Vision WG White Paper: European Vision for the 6G network Ecosystem, the 6G-IA Security WG Position Paper: Innovative Approaches for 6G Security, (published in January 2025) and the European SME Expertise in 5G and Beyond 2024 (published in February 2025). Furthermore, the 6G-IA Vision and Societal Challenges Working Group (VSC WG) and the SNS JU have been instrumental in refining Key Values (KVs) and Key Value Indicators (KVIs) to track societal impacts. Through the SNS JU, Europe is leading efforts to integrate KVs and KVIs into 6G discussions alongside traditional KPIs.

1.6 Openness, cooperation, synergies and cross-cutting themes and activities

Call openness, participation of SMEs

To attract participants to the third call for proposal, information on the context of the SNS JU project proposals, on joining the 6G-IA and the most Frequently Asked Questions were made available on the website of the SNS JU.

A dedicated Information Day was also organised on 22 January 2024, and a dedicated brokerage event took place online on 25 January 2024, supported by dedicated communications. Furthermore, a Brokerage Service was put at disposal online in order to help potential participants to present their profile, their interests and their project ideas and to identify possible collaboration for future proposals' submission.

It should be highlighted that one of the goals of the SNS programme is the increased participation of the SMEs. For this reason, the participation of SMEs in the RIA and IA activities at a level of 20% has been set as a KPI for the programme. In the third call for proposal, 16 projects have been funded with the participation of 3096 unique beneficiaries, with SMEs representing 24,6 % above the set KPI. Out of these beneficiaries, SMEs have requested 25,4% of the overall EC contribution. Since the SNS JU Call 1 and 2, the openness was reinforced in some topics through financial support to third parties (cascading grants), to incorporate specific actors, technologies and use cases on an ad-hoc basis as well as broadening the basis of innovation funding throughout Europe. Finally, 32% of the unique beneficiaries are not members of the 6G-IA, which also demonstrates the openness of this third call for proposal.

In line with Horizon Europe principles, most topics of the SNS Call 3 are open and the general eligibility criteria, as set out in Part B of the General Annexes of Horizon Europe Work Programme 2024, were applied. Exceptionally for topic "HORIZON-JU-SNS2023-STREAM-D01-01", the call is restricted to the SNS JU members other than the Union and their constituent or affiliated entities, with up to 30% of the budget fully open. The reason is that large-scale trials require the take up of long-term commitments from the JU private member constituents. HORIZON-JU-SNS-2024-STREAM-B-07, "Lighthouse Sustainability" and HORIZON-JU-SNS2024-STREAM-B01-08 have up to half of the budget fully open so to ensure steering and long-term commitment of partners and JU members other than the Union on strategic issues, but equally to involve new players from the non-telecommunication sectors (Sustainability, Artificial Intelligence) and verticals. HORIZON-JU-SNS2024-STREAM-C01-01, "Lighthouse Microelectronics" equally aims to ensure long-term commitment, including players from the microelectronics sector, and requires stability to develop the needed pan European test and experimentation infrastructure that spans the programme lifetime. The activities are also supporting the objectives of the Chips Act, the IPCEI ME/CT and targets cooperation between SNS and Chips Joint Undertakings towards microelectronics for 6G and up to half of the budget fully open.

In the context of the SNS Call 3, all proposals to be submitted in Streams B, C and D will have to include an additional security declaration (Annex to the proposal), in accordance with Article 170.1 of the Council Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe, the recent Commission Communication on the implementation of the 5G cybersecurity toolbox (C(2023) 4049 final) and the recently adopted EC strategy to enhance European Economic Security (JOIN(2023) 20 final.

In addition, proposals are expected to demonstrate an EU added value in the context of EU economic security objectives and economic security risks, including the consideration of supply chain and technology leakage risks. Particular attention will be paid to mitigating the higher risks associated with certain network suppliers as mentioned in Commission Communication C(2023) 4049. This is particularly relevant when security-sensitive information needs to be exchanged among project partners or accessed by them.

Synergies with EU programmes, funding and collaboration with other EU partnerships

Since the initial set up of the SNS JU, it was agreed that cross-partnerships and international collaboration was needed to achieve the desired objectives of the programme. The SNS JU has identified several Horizon Europe partnerships that are also dealing with key enablers for 6G networks and services or are expected to make use of SNS JU results.

The SNS JU broadly promotes collaboration activities and synergies with other EU initiatives, partnerships, and vertical stakeholders to maximise the efficiency and effectiveness of public investments in Europe and to create positive multiplier effects. By fostering these collaborations, the SNS JU ensures that its research and innovation efforts contribute to a robust and globally competitive European telecommunications ecosystem.

The SNS JU actively seeks for synergies with other EU programmes and activities. This is demonstrated at different levels, from specific sections of the SNS JU Strategic Research and Innovation Agenda (SRIA), which includes topics for collaboration on microelectronics and photonics to broader EU Partnerships cooperation, e.g. with the Chips JU, the European High-Performance Computing JU (EuroHPC JU), the European Space Agency (ESA), Artificial Intelligence, Data and Robotics Partnership, Photonics Partnership and the Connected, Cooperative and Automated Mobility Partnership (CCAM).

The SNS JU identifies microelectronics as a priority area. Strengthening the existing collaboration with Chips JU is key to reinforcing the European ecosystem. There are multiple actions that have been designed with synergies in mind – the Chips JU Focus Topic on sub-THz communication, the SNS JU microelectronic-based solutions for 6G networks, and activities financed under the Important Project of Common European Interest (IPCEI) in microelectronics and communication technologies. Seven projects funded by the SNS JU bring together the telecommunications and microelectronics communities, and this is further enhanced through the Microelectronics Lighthouse (X-TREME 6G project) of the SNS WP 2024. These initiatives provide test and experimental platforms where solutions from both SNS JU and Chips JU can be validated for 6G network performance and applicability, with an objective to reach industrialisation stage through transfer towards the Chips JU Pilot lines.

Another critical example of long-term synergies is the integration of telecommunications networks and rail networks. In the transport sector, the SNS JU has established a direct collaboration with the EU-Rail JU by jointly implementing the 2024 R&I Work Programme synergy call "HORIZON-ER-JU-2024-FA2-SNS: EU-RAIL – SNS SYNERGY: Digital & Automated testing and operational validation of the next EU rail communication system" – which resulted in a jointly managed synergy project (MORANE2) bringing together the rail and telecoms stakeholders. The synergy call focuses on the development, validation, and testing of the Future Rail Mobile Communications System (FRMCS).

The SNS JU also acts as a facilitator for the exchange of information for related activities with Member States and vertical industries on future services (e.g. automotive, transport, media, health). There are approximately 250 use cases, trials and pilots running with vertical sectors' involvement in the SNS JU's Call 1 and Call 2 projects. Developed in 2024 by the SNS ICE project, the SNS JU's Verticals Cartography is a publicly available monitoring tool that tracks advancements related to verticals in our programme and provides consumers and industry end-users with practical examples of 6G integration into daily life and business. In terms of collaboration with Member States, through the SRG and some dedicated activities (e.g. workshop), the SNS JU, in its role of States Representative Group (SRG) Secretariat, actively supported the SNS JU – Member States Synergies Report that was endorsed by the SRG in November 2024.

Through the SRG and adjacent activities, the SNS JU fosters maximum cooperation with the Member States 6G agendas, projects and policies (participation in national events and workshops, discussion on possible synergies and contributions to working groups, etc). This is reflected in the 2024 Work Programme that references specifically national 6G programmes, with the possibility to create synergies and integrate results and solutions from national initiatives and projects e.g. in the Lighthouses of Stream B and C and in Stream D projects.

International collaborations are fundamental to SNS JU's strategic mission. Partnerships with leading global players help to promote European research priorities in the international context, fostering cross-border innovation, standardization, and creation of global ecosystems with economies of scale. In 2024, international cooperation has been addressed through dedicated international collaboration projects notably with Japan and the Republic of Korea, and through strategic renewed cooperation with the US through the SNS JU Work Programme and via the EU-US Trade and Technology Council that, in April 2024, agreed on a joint "6G Vision" – focussing on technology challenges and research collaboration including on microelectronics; AI and cloud solutions for 6G; security and resilience; affordability and inclusiveness, sustainability and energy efficiency; openness and interoperability; efficient radio spectrum usage, and the standardisation process. Furthermore, the European Commission and 6G-IA have signed several Memoranda of Understanding (MoUs) and Letters of Interest/Intent (LoI) with organisations and associations of strategic importance around the globe to support 6G deployment and adoption.

SNS JU policy working groups

In addition to our Work Programme activities, the SNS JU has contributed to other strategic and policy initiatives in the field of 5G and 6G in 2024.

Following the Governing Board decision of November 2023 to set-up two SNS JU GB Strategic Working Groups, the SNS policy workstream increased throughout year 2024.

As foreseen in the Single Basic Act, the SNS JU ensures coordination and steers discussions around the Strategic Deployment Agendas for 5G, key documents that contributes to the CEF2 Digital EU programme strategic orientations. The 5G Strategic Deployment Agendas (SDA), linked to the 5G Corridors deployment across major EU pathways, address key European industry sectors like the automotive and the rail. In 2024, the 5G for Connected and automated mobility-Deployment Stream ("5G4CAM") Strategic Working Group, aiming at advancing Connected and Automated Mobility (CAM) in Europe started to meet regularly and drafted position papers. The SNS JU Governing Board approved the 5G4CAM SDA on rail drafted with the Rail community issued by this working group and endorsed by the 3 rail associations (EIM, CER and UIC) in December 2024.

Furthermore, in 2024 the SNS JU Policy Working Group (WG) was launched with the aim to contribute to shaping European policies, including strategies, roadmaps and recommendations relating to Smart Networks & Services technological, societal and industrial competitiveness aspects. Its primary purpose is to support the definition of policies that should be implemented in strategic technological, societal, and industrial areas by capturing the priorities and needs of the European industry, academia, and other relevant stakeholders by directly advising the SNS JU Governing Board. To that end, two sub working groups were set up in 2024. The 3C subgroup was set up with the mandate to discuss policy, industrial and business developments relevant to the "3Cs (collaborative, connected, computing) network" vision, identify and discuss potential synergies/ coordination between the SNS JU activities and other EU activities and funding programmes (e.g. Horizon Europe Cluster 4, Digital Europe Programme, Connecting Europe Facility, IPCEI-CIS, other JUs), and examine a potential coordination role for the SNS JU, including the possible need for amendments to the Single Basic Act creating the JU to give effect to such a role. The Standardisation subgroup was set up with the mandate to discuss standardisation and how to further streamline the priorities on use cases for 3GPP so to maximize impact in standardisation. The two subgroups have started to meet regularly and worked towards position papers in 2024, which are submitted to the SNS JU Governing Board.

The SNS JU places a special emphasis on developing synergies with other partnerships and associations in Europe, as well as with international partners to cooperate in mutually relevant domains. These collaborations help integrate European technological advancements with global developments, fostering leadership in next-generation telecommunications.

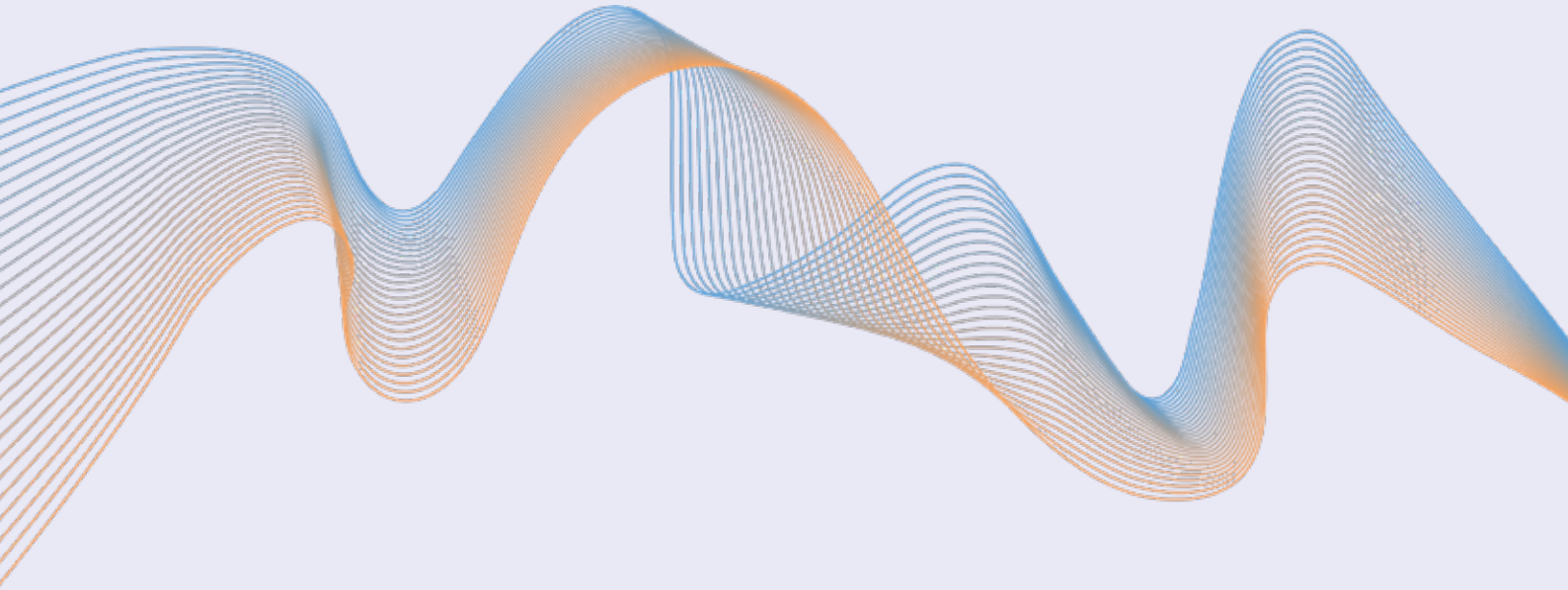
1.7 Progress against Key Impact Pathways and JU's Key Performance Indicators

In 2024, the programme has entered a new phase with the first reviews having taken place. The impact of the programme has started to unfold. Our reporting dives into both qualitative and quantitative perspectives, shedding light on the impact and performance achieved thus far. With determination and dedication, we are confident to achieve all required goals.

Within our reporting framework, we track both general Horizon Europe and specific JU objectives. These indicators serve as our compass, guiding us towards the realization of our long-term strategic ambitions.

1.7.1 Progress against Horizon 2020 legacy Key Performance Indicators

Not applicable.



1.7.2

Progress against General Horizon Europe Key Impact Pathways Indicators (KIPs)

The monitoring of the programme's progress towards its objectives is structured around key impact pathway indicators (KIPs). These indicators reflect three complementary impact categories that acknowledge the nature of research and innovation (R&I) investments: scientific, societal, and technological/economic. In this 2024 AAR, we use a short-term proxy, as SNS JU projects commenced only in 2022.

The KIP indicators have been compiled using both quantitative and qualitative methodologies. This includes data gathered from i) the continuous reporting (CR) module for Call 1 and 2 projects and ii) the periodic reporting (PR) module for Call 1 projects only. Additionally, KIPs indicators for this AAR report have considered results from surveys conducted to Call 1 and Call 2 projects by SNS JU CSA project SNS OPS.

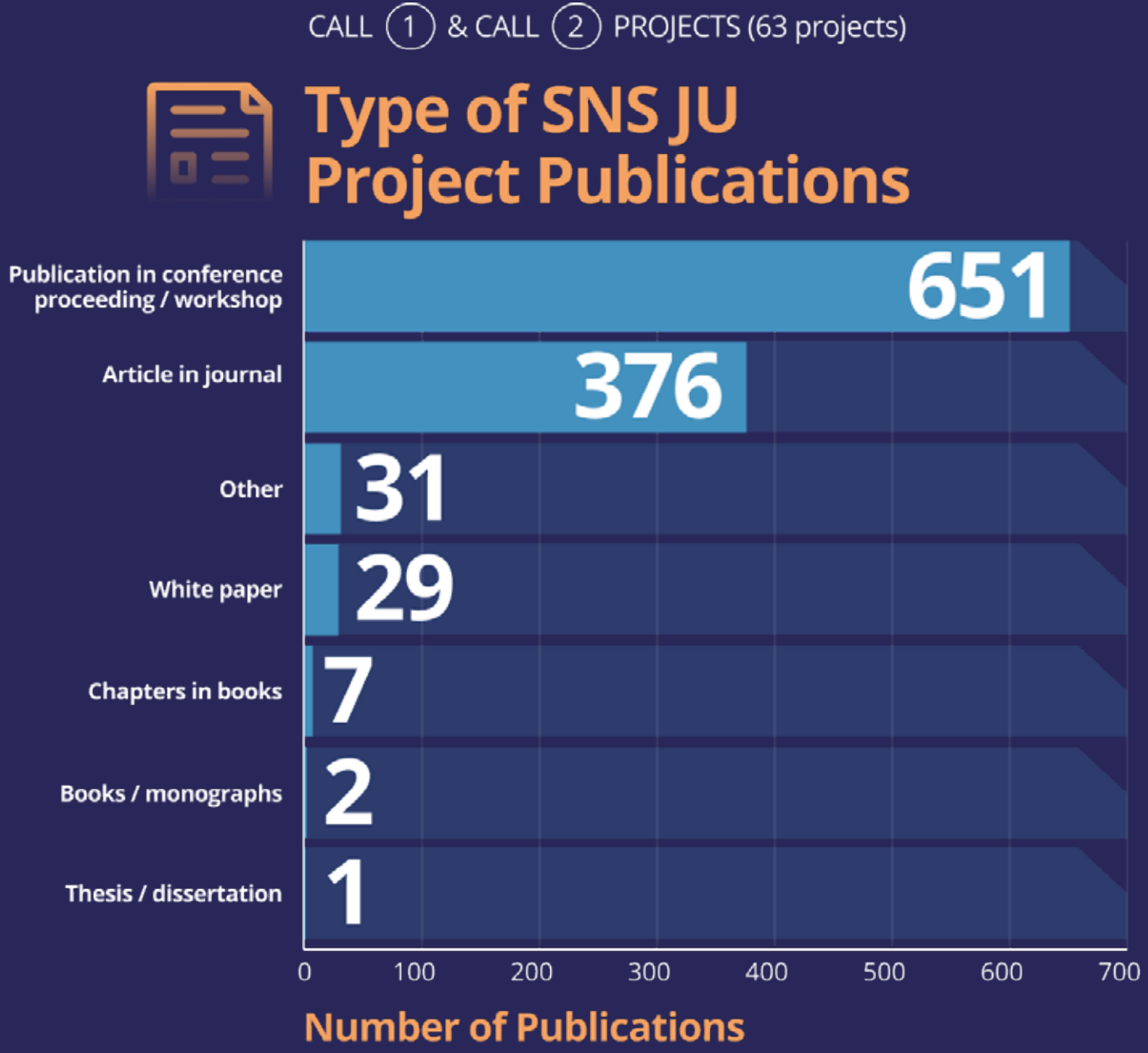
Scientific Pathway Indicators

The SNS programme is delivering scientific impact by creating high-quality new knowledge (KIP1), strengthening human capital in R&I (KIP2) and fostering diffusion of knowledge and open science (KIP3).

KIP #1

Creating high-quality new knowledge.

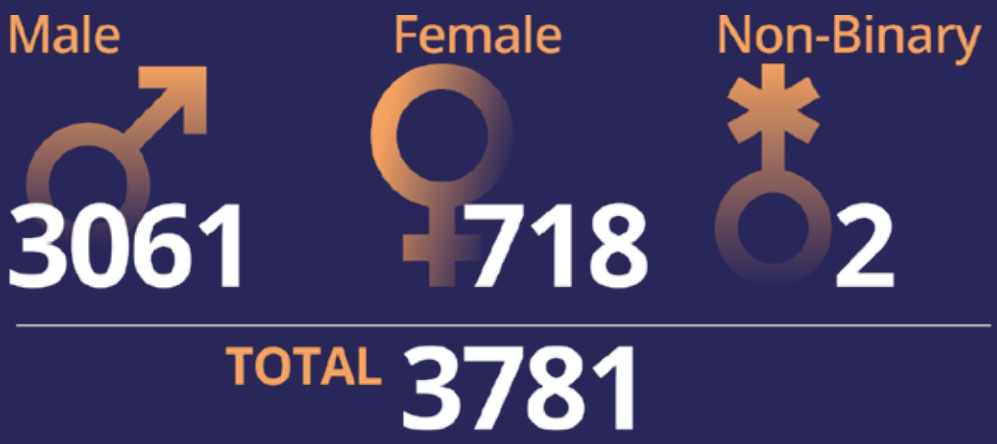
Based on SNS JU data retrieved periodic reporting for Call 1 and Call 2 projects, SNS JU programme has reported **1284 publications** out of them **926 are peer-review publications** resulting from activities in 2024.If we look granularly at the type of publications, according to the SNS OPS survey, the programme has produced 651 publications in conference proceedings/workshops, 376 articles in Journals and 29 White Papers.



KIP #2

Strengthening human capital in R&I

Based on the data retrieved from the continuous reporting module for Call 1 and 2 projects, the SNS programme has involved **3781 high-level researchers** in R&I activities, including upskilling (training, mentoring, coaching, and developing R&I infrastructures) activities.

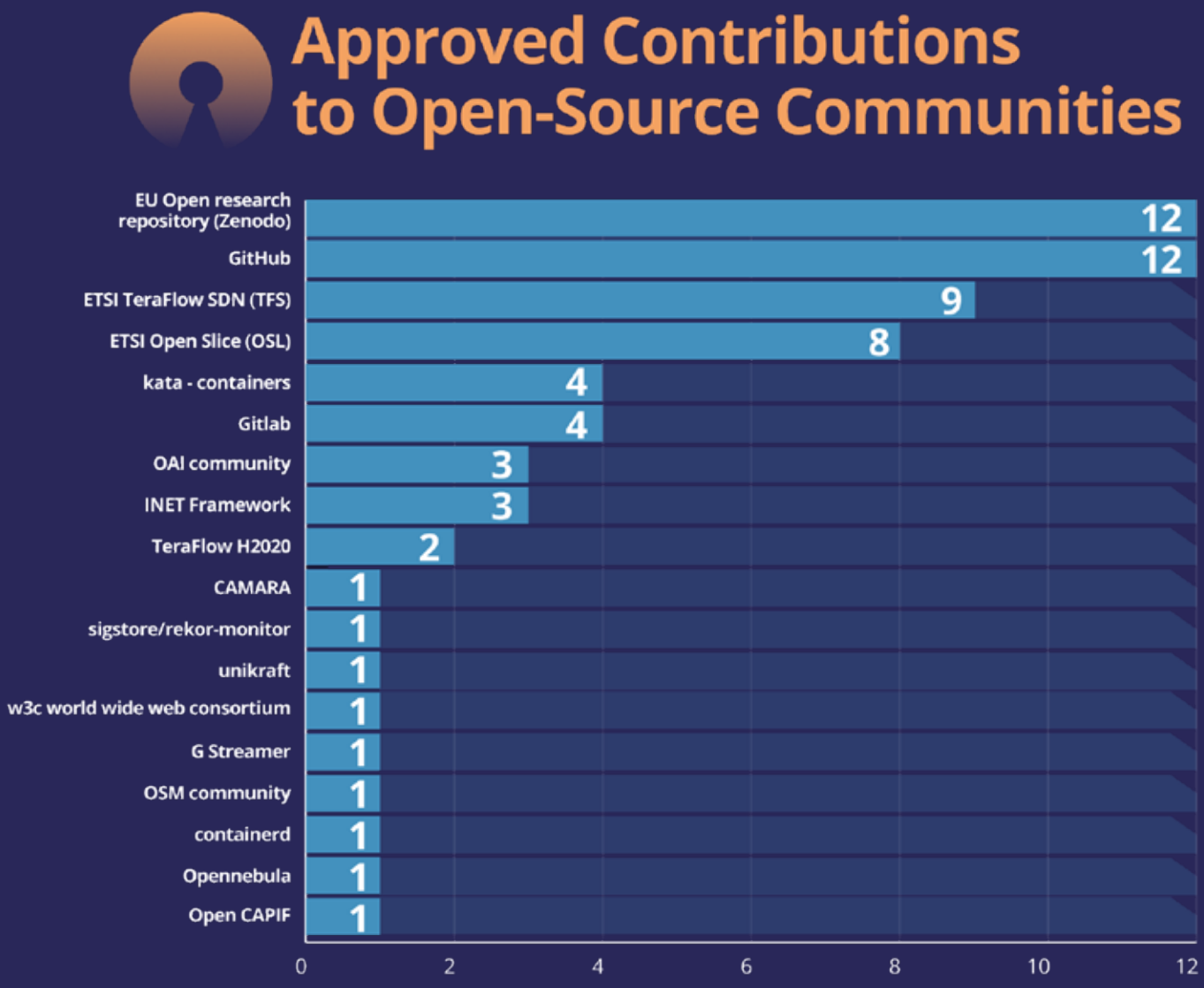


KIP #3

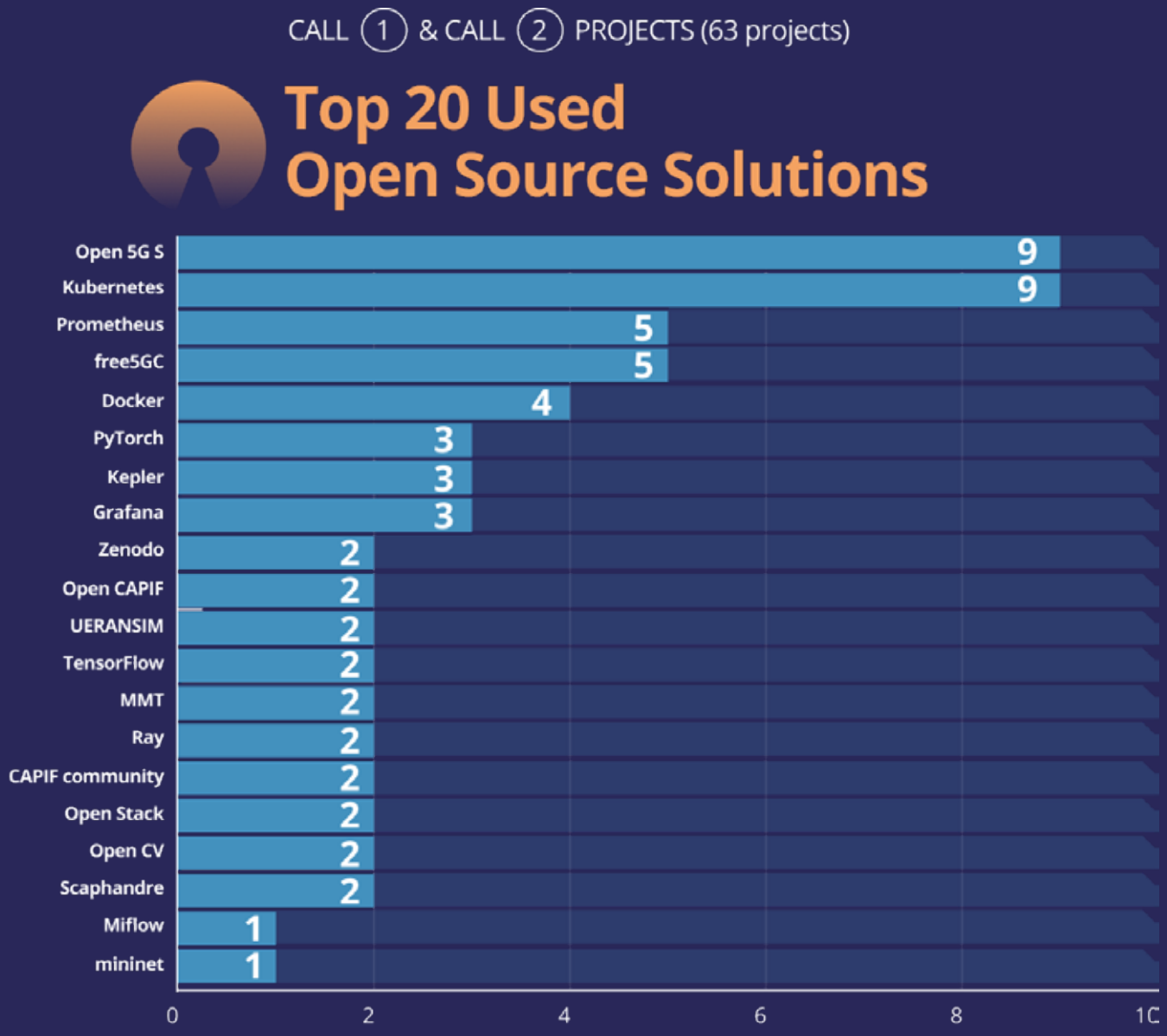
Fostering diffusion of knowledge and open science

Based on the information retrieved by DG RTD from the periodic reporting, which includes only SNS Call 1 projects, SNS JU projects have made available 547 Open Access Publications, 37 Open Access datasets and 18 OA software.

Additionally, the questionnaire carried out by SNS project OPS has concluded that out of 64 contributions from Call 1 and Call 2 projects most of the Open Source contributions were targeted to Zenodo and GitHub.



Further, on a technical level, SNS projects have used open-source solutions, notably for data management and analytics, Edge and IoT, Robotics and Computer vision as well as for energy efficiency and Green ICT.



Societal impact pathway indicators

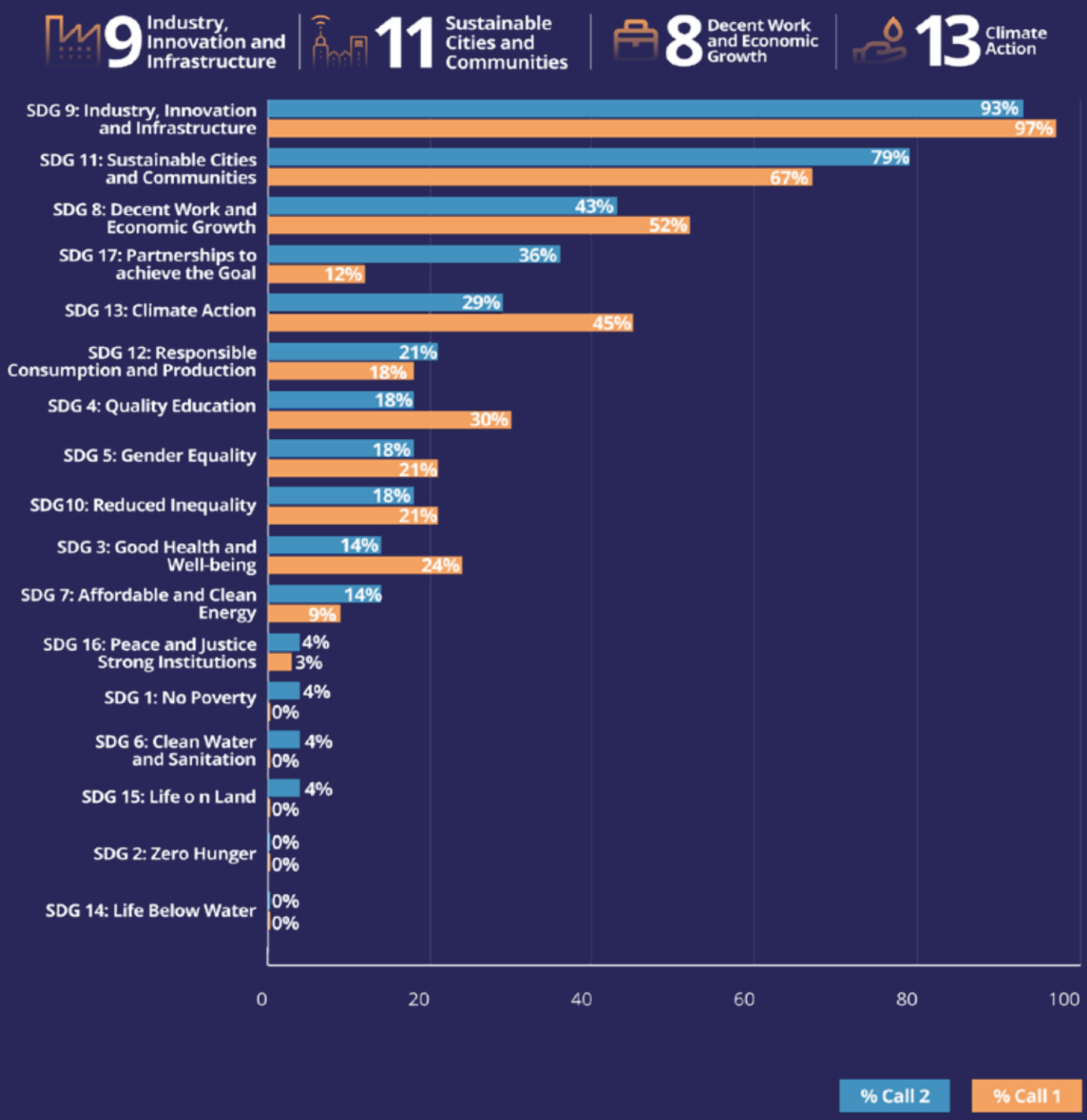
The SNS programme is contributing to the societal impact by addressing Union´s priorities in global challenges

KIP#4

Addressing Union policy priorities and global challenges through R&I

Results from SNS JU Call 1 and Call 2 projects are addressing EU policy priorities and global challenges, including UN Sustainable and Development Goals (SDGs). Notably, SDG 9 related to Industry, Innovation and Infrastructure; SD11 Sustainable Cities and Communities and SGD 8 Decent Work and Economic Growth.

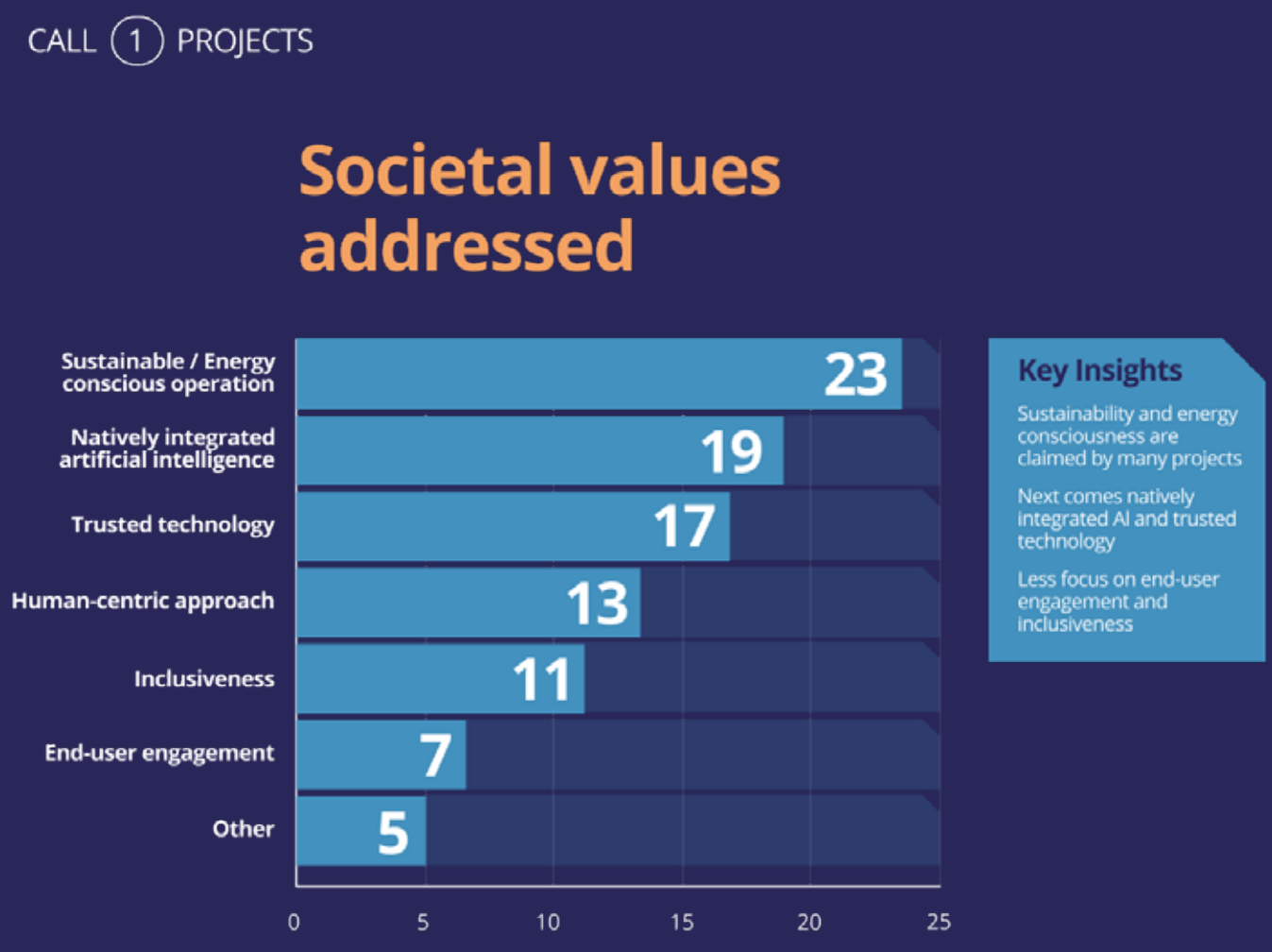
SNS JU Call 1 and Call 2 projects contributing to UN SDGs



Further, SNS JU projects Call 1 and Call 2 projects are also contributing to Union´s policy priorities, Stream D projects have the highest focus on societal values while Stream A projects have no end user focus. The main societal values tackled by SNS JU Call 1 and Call 2 projects refer primarily to two main categories:

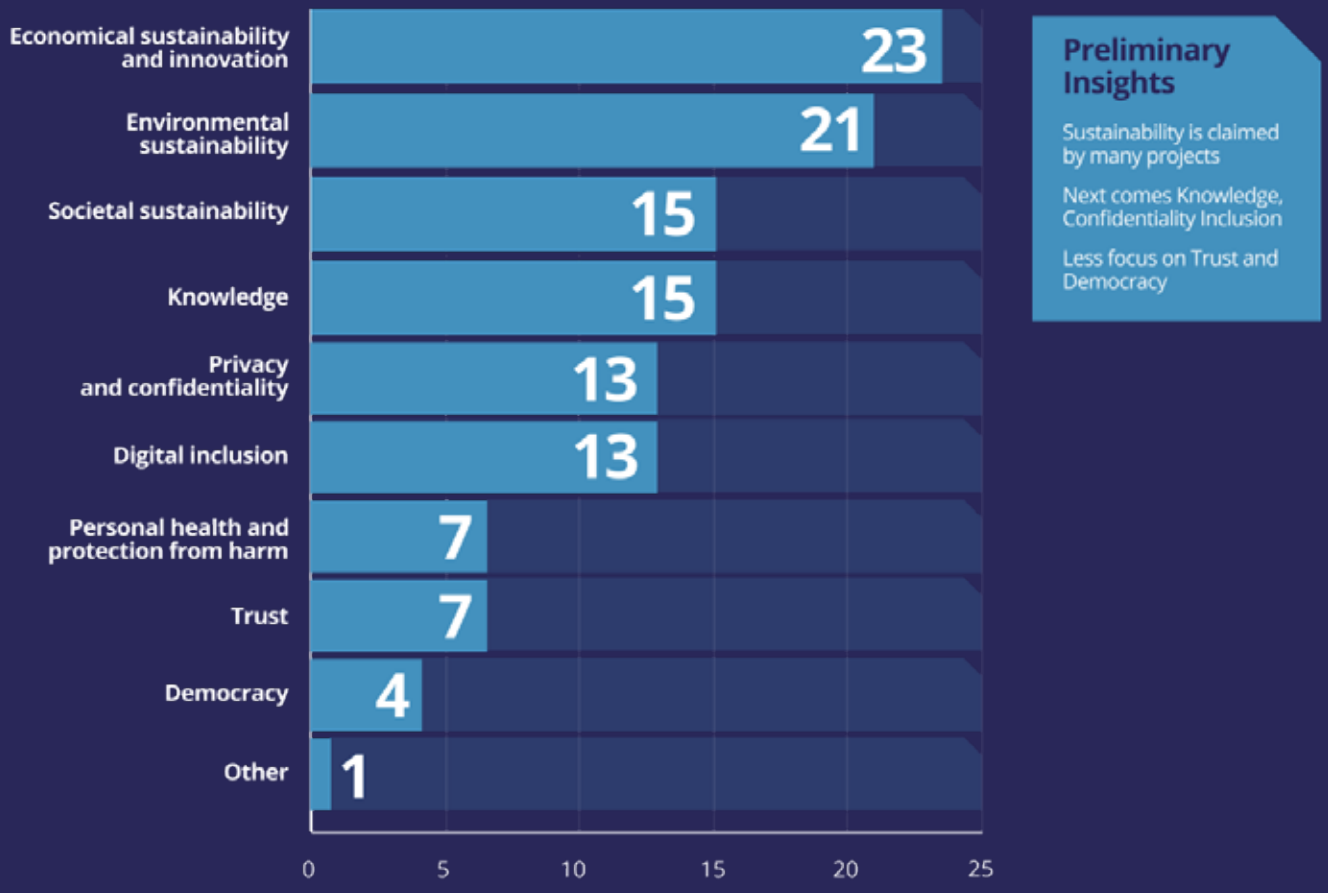
- **Sustainability**
  - ✓ Support research on energy efficiency
  - ✓ Economical sustainability
- **Technological Sovereignty and Security**
  - ✓ Trusted technology
  - ✓ Integrated artificial intelligence
  - ✓ Privacy and digital inclusion (human-centric)

Societal values of SNS JU Call 1 and Call 2 projects



CALL 2 PROJECTS

Societal values addressed



NB: The societal goals for SNS Call 1 and Call 2 projects have been gathered from the SNS OPS[4] questionnaire, which has been specifically tailored for each call. Consequently, the categories for societal goals differ between Call 1 and Call 2.

KIP #5

Delivering benefits and impact through R&I

Not applicable to SNS JU, as our mandate is not mission driven.

4. SNS-OPS is CSA which supports SNS institutionalised European partnership through SNS projects coordination

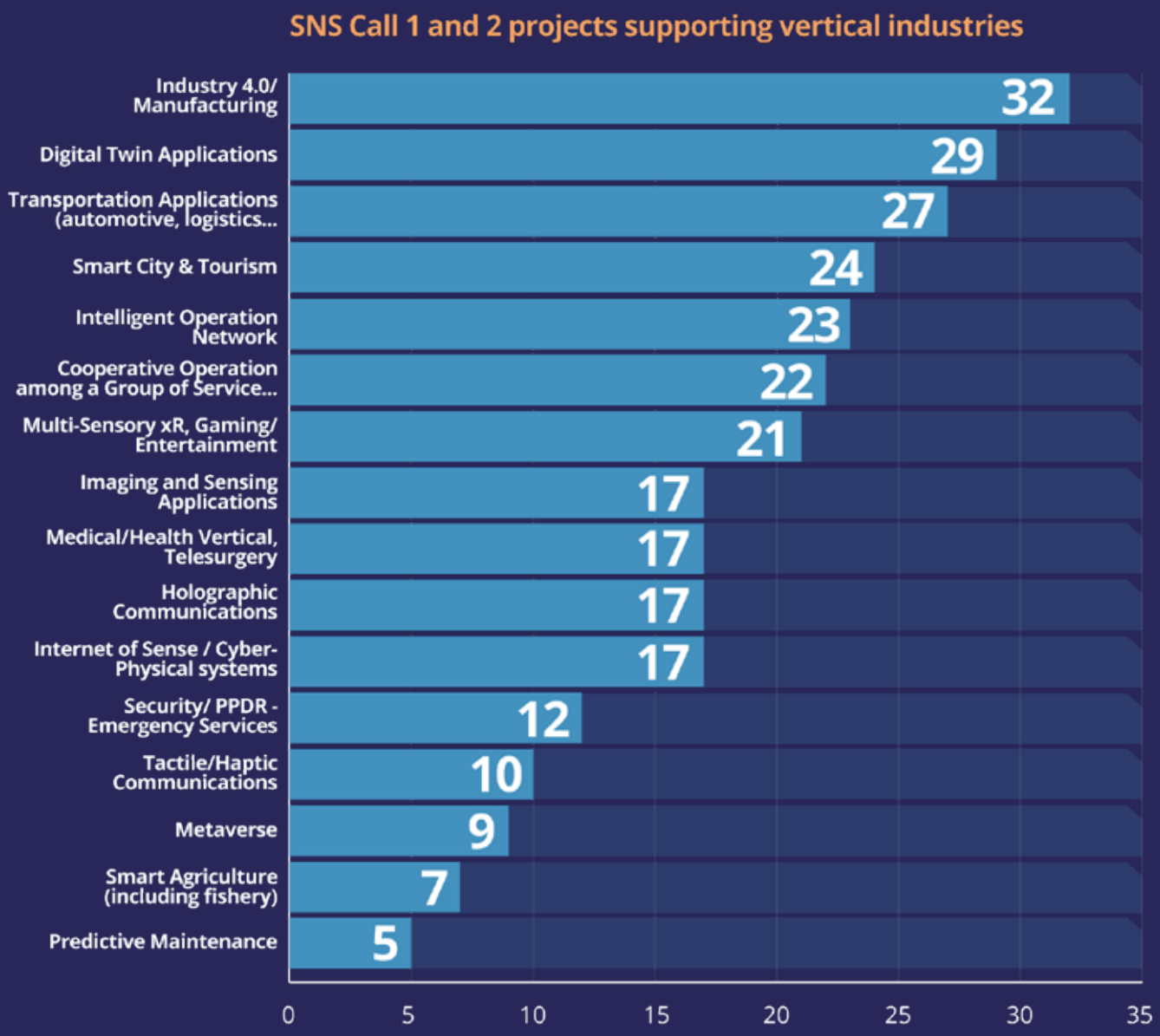
KIP #6

Strengthening the uptake of R&I in society

The SNS programme is actively promoting co-creation and co-design through the engagement of citizens and civil society. End-users (vertical industry stakeholders) can contribute trough participation in Stream D activities and 6G-IA consultations. The SNS JU programme is use-cased oriented and has a clear goal of co-creation by aligning market requirements with technology innovation.

Based on the results of the SNS OPS questionnaire, SNS JU stream D Call 1 and 2 projects are notably engaging with verticals in the domain of Industry 4.0, Digital Twins, Transport and Smart Cities.

SNS Call 1 and 2 projects supporting vertical industries (table below)



Technological and Economic impact pathway indicators

The SNS programme is delivering technological and economic impact in the Union by influencing the creation of growth, creating direct and indirect jobs in the Union.

KIP #7

Generating innovation-based growth.

SNS JU projects have registered **98 patents**, **94 of them are confidential** patents.

KIP#8

Creating more and better jobs

The indicator of number of full time equivalent (FTE) jobs created, and jobs maintained in participating legal entities for the project funded by the programme relies on data derived from the periodic reporting of Call 1 projects. These SNS JU projects have created **836,06 FTE jobs**.

KIP# 9

Leveraging investments in R&I

This indicator defines the amount of public and private investment mobilised with the initial investment of the programme. Participants of the projects funded by Horizon Europe are required to contribute at least a certain share of their own funds to the projects. This represents a co-investment of public and private investment towards achieving the programme's objectives.

The value of this indicator is calculated as the difference of the total cost of a specific project and the contribution of the SNS JU to the total cost of the project. The values below refer to projects that started implementation in 2024 (Call 2).

- The multiannual (referring to the whole duration of the projects) total cost of the 28 projects (Call 2 projects that started within 2024) implemented is **EUR 160.753.981**.
- The multiannual total contribution of the SNS JU is **EUR 132.644.377**.
- The multiannual private co-investment is (composed of IKOP and contributions by non 6G-IA Members) **EUR 28.109.604**.
- The multiannual total IKOP (in-kind contributions to Operational Activities) **EUR 13.831.541** is included in the private co-investment[5].
- The In-kind contributions for additional activities (IKAA) referred to activities of 2022 amount is EUR **85,727,939**.
- The In-kind contributions for additional activities (IKAA) referred to activities of 2023 amount is **EUR 116,182,773**. The In-Kind contributions for additional activities (IKAA) 2024 amount was **EUR €135,391,957**.

The value of the private co-investment is equal to the difference between the total cost of the ongoing projects and the contribution of SNS to the total costs. The co-investment includes the in-kind contributions for operational activities (IKOP from 6G-IA members) which amounts **EUR 13.831.541**.

The financial contribution to the administrative budget by the 6G Industry Association (EUR 767,021) is excluded.

Note: The total cost of the projects and the IKOP include the Associated Partners.

5. The estimation shows that the IKOP is above the programmatic target of EUR 8 millions

1.7.3

Progress against HE Common JUs Key Performance Indicators

Additionality and directionality

Indicator #1
Progress towards (financial and in-kind) contributions from partners other than the Union - i.e., committed vs. actual contributions [direct leverage].

- The 2023 In Kind contributions for additional activities (IKAA) amount is EUR 116,182,773.29. Further, the 2024 estimated In Kind contributions for additional activities (IKAA) amount is EUR 80,550.000.

Indicator #2
Additional investments triggered by the EU contribution, including qualitative impacts related to additional activities.

- The multiannual private co-investment is (composed of IKOP and contributions by non 6G-IA Members) EUR 28.109.604.

Indicator #3
Overall (public and private; in-kind and financial) investments mobilised into EU priorities.

- Figures presented and discussed in Chapter 2.2.

Indicator #4
International actors involved.

The SNS JU has prominent global visibility for 6G networks by:

- Being one of the key partners of the 6G Global events like EuCNC & 6G Summit and 5G Techritory.
- Establishing cooperation with like-minded countries at global level and dedicating resources to work together with USA, Republic of Korea and Japan. In this context two new projects on EU-Japan and EU-Republic of Korea cooperation have been selected for funding in 2024 and these two projects will start in 2025.
- Actively supporting the EU-US cooperation in the context of the EU-US Trade and Technology Council's (TTC), where the SNS Policy Strategic working together with ATIS created a roadmap for collaboration on strategic 6G technologies between EU and US. This roadmap has been endorsed by both EU and US administrations in 2024 as tangible result of the common EU-US vision on 6G technologies.
- Capitalizing on the 6G-IA MoUs with all key global regions on 6G activities. In 2024 a new MoU with Bharat 6G Alliance (India) has been signed to enlarge the set of countries signed an MoU with 6G-IA.
- Leveraging the SNS-ICE CSA project that acts like the SNS ambassador with the outside world.

Transparency and openness

Indicator #5
Share & type of stakeholders and countries invited/engaged.

In the first two calls of SNS JU a diverse set of stakeholders have been engaged in the projects. More specifically SNS JU project beneficiaries are:

- 48,9% Private for-profit entities (excluding Higher or Secondary Education Establishments).
- 24,4% Higher or Secondary Education Establishments (public and private).
- 23,6% Research Organisations (public and private).
- 0,1% Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments).
- 3,0% Other.

Indicator #6
Share of newcomer partners in partnerships, including geographical coverage.

Newcomer partners are those organisations that are partners in the current partnership but have never been a partner in this partnership or its predecessor(s). The private member of the SNS JU (6G-IA) incorporated 65 newcomers to the Association in 2024 which consist of 17,7% of the total members of 6G-IA.

Overall organisations from 30 countries are members of the 6G-IA. Geographically, **six countries represent 60% of the membership base** of the member other than the Union: Greece, Germany, Spain, France, UK and Italy.

6G-IA members	End of 2023	End of 2024	% Total Membership	Newcomers	Newcomers as % total
Greece	39	48	13,0%	9	18,8%
Germany	41	46	12,5%	5	10,9%
Spain	38	43	11,7%	5	11,6%
France	28	31	8,4%	3	9,7%
UK	22	29	7,9%	7	24,1%
Italy	22	24	6,5%	2	8,3%
Ireland	12	18	4,9%	6	33,3%
Turkey	6	12	3,3%	6	50,0%
Netherlands	7	11	3,0%	4	36,4%
Belgium	9	10	2,7%	1	10,0%
Finland	8	10	2,7%	2	20,0%
Sweden	9	9	2,4%	0	0,0%
Portugal	8	9	2,4%	1	11,1%
Switzerland	5	9	2,4%	4	44,4%
Norway	7	7	1,9%	0	0,0%
Romania	5	7	1,9%	2	28,6%
Cyprus	5	6	1,6%	1	16,7%
Estonia	5	5	1,4%	0	0,0%
Israel	5	5	1,4%	0	0,0%
Luxembourg	5	5	1,4%	0	0,0%
Slovenia	4	4	1,1%	0	0,0%
Poland	3	4	1,1%	1	25,0%
Czechia	2	4	1,1%	2	50,0%
Austria	2	3	0,8%	1	33,3%
Bulgaria	0	3	0,8%	3	100,0%
Hungary	2	2	0,5%	0	0,0%
Denmark	1	1	0,3%	0	0,0%
Latvia	1	1	0,3%	0	0,0%
Lithuania	1	1	0,3%	0	0,0%
Slovakia	1	1	0,3%	0	0,0%
TOTAL	**303**	**368**	**100,0%**	**65**	**17,7%**

Indicator #7
No and types of newcomer organisations in supported projects.

During the first two SNS R&I calls, a remarkable amount of newcomer organisations[6] is participating in the SNS JU projects. More specifically 199 unique newcomer organisations out of 409 unique beneficiaries are participating in SNS JU projects (48,7%). In the table below the number of newcomer organisations per type is shown.

ORGANISATION TYPE	Newcomer organisations	% of unique beneficiaries
PRIVATE	**154**	**49,7%**
Private for-profit entities (excluding Higher or Secondary Education Establishments)	132	51,0%
Higher or Secondary Education Establishments	3	37,5%
Research Organisations	13	39,4%
Other	6	60,0%
PUBLIC	**45**	**45,5%**
Higher or Secondary Education Establishments	41	47,7%
Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments)	1	50,0%
Research Organisations	3	27,3%
TOTAL	**199**	**48,7%**

In the context of programme openness another important indicator is the participation of beneficiaries which are not 6G-Industry Association (6G-IA) members. In the first 2 SNS calls 129 out of 409 unique beneficiaries were not members of 6G-IA (31,54%).

Coherence and synergies

Indicator #8
Share of budget dedicated to coordinated and joint activities with other European Partnerships.

In 2024, SNS JU has engaged with Chips JU and Europe's Rail JU.

Seven projects funded by the SNS JU foster collaboration between the telecommunications and **microelectronics sectors**, further enriched by the Microelectronics Lighthouse initiative as part of the SNS WP 2024. These initiatives create a synergy by offering test and experimental platforms where solutions developed by both SNS JU and Chips JU can undergo validation for their performance and applicability in 6G networks. The ultimate goal is to advance these technologies towards industrialization by transitioning them to the Chips JU Pilot lines for further development.

Synergies have been further enhanced with the **transport sector** through a direct collaboration between the SNS JU and the EU-Rail JU. This partnership is exemplified by the joint implementation of the 2024 R&I Work Programme synergy call, "HORIZON-ER-JU-2024-FA2-SNS: EU-RAIL – SNS SYNERGY: Digital & Automated Testing and Operational Validation of the Next EU Rail Communication System." With a EUR 1.000.000 contribution from SNS JU and an excepted total IKOP for SNS of EUR 3.179.079,43.

6. As "newcomer organisations" are considered organisations that have not participated in the 5G-PPP programme of H2020

Indicator #9
Number and type of coordinated and joint activities with other European Partnerships and with other R&I Initiatives at EU /national/regional/sectorial level.

In 2024 and 2025, SNS JU continued a strong collaboration with Chips JU, EU-Rail JU and Photonics 21. The SNS is working closely with the SRG and the national initiatives not only in terms of joint events (a special meeting and a convened session at EuCNC'25) but also by having an active collaboration through the SNS-ICE CSA project that is a gateway of information between the EU national initiatives and the SNS JU. Moreover, the SNS JU is active in the engagement of the vertical sector, capitalizing on the 6G-IA MoUs with all key global vertical associations.

Lastly, in 2024 SNS JU has initiated contacts to establish a long-term strategic collaboration with the European Space Agency (ESA) which aimed at coordinating the outcomes of non-terrestrial technologies researched by SNS projects, to discuss the increasing demand from SNS JU projects to access space infrastructure.

Indicator #10
Share of complementary and cumulative funding from other Union or national/ regional funds (national/regional, ERDF and other cohesion policy funds, RRF, CEF, DEP).

In 2024, there was no funding received from other Union/National/Regional funds.

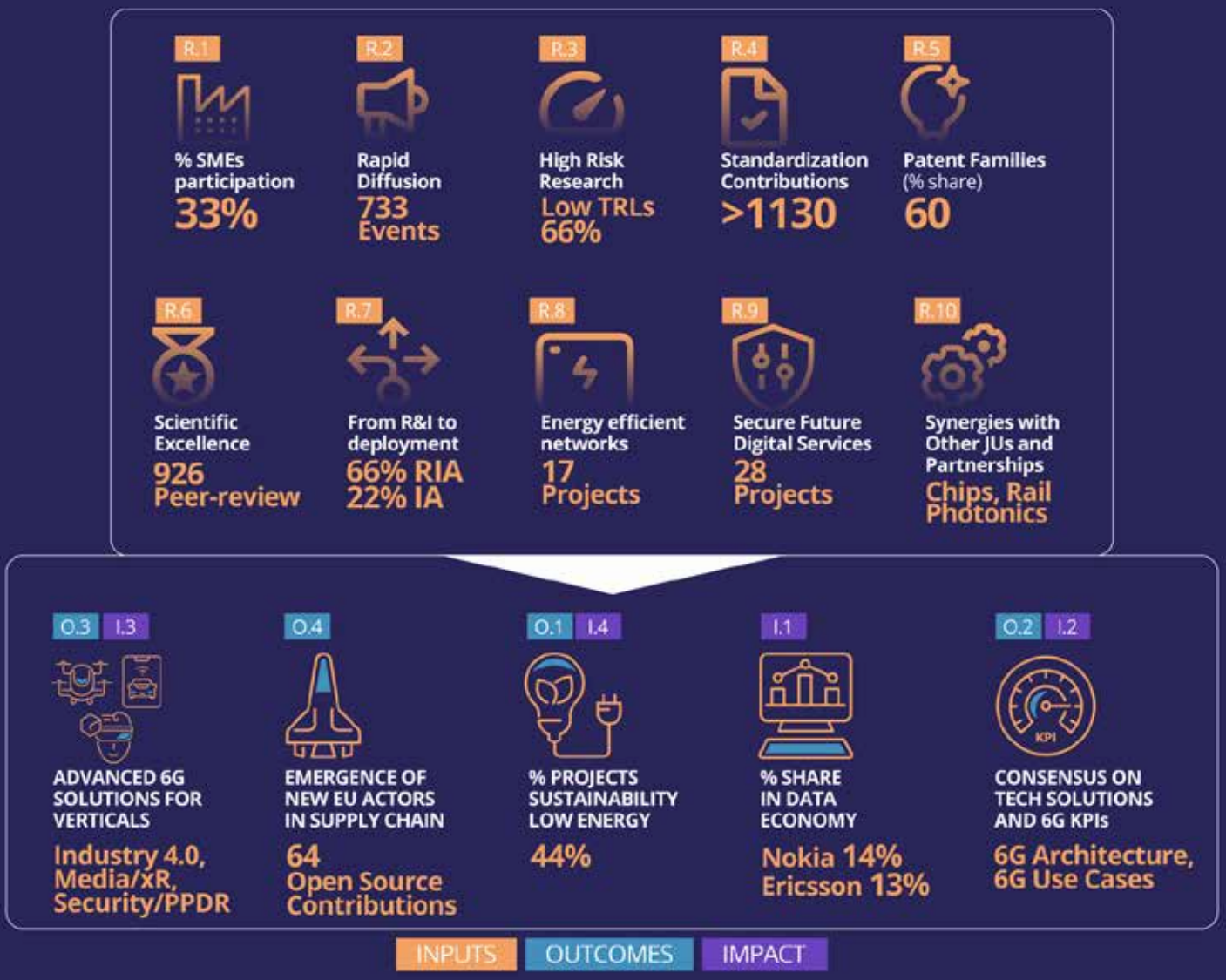
Indicator #11
Visibility of the partnership in national, European, international policy/industry cycles.

Within the multifaceted efforts of SNS JU, a crucial action is dedicated to fostering international collaboration. In the 2024 Work Programme, SNS JU actively engaged with Japan and the Republic of Korea, on topics related to AI and Radio Access Networks (RAN). In this context two new projects on EU-Japan (6G-MIRAI) and EU-Republic of Korea (6G-Arrow) cooperation have been selected for funding in 2024 and these two projects will start in 2025. Furthermore, in the context of EU-US collaboration in 6G technologies, an SNS JU project entitled 6G-XCEL (6G Trans-Continental Edge Learning) was launched in January 2024. 6G-XCEL offers substantial communication and international visibility opportunities for the SNS programme with respect to EU-US collaboration since:

- Collaboration is foreseen with similar initiatives in the US like the NSF (National Science Foundation).
- Contributes to **EU-US Trade and Technology Council's (TTC) 6G Vision for Transatlantic Collaboration** through fostering teamwork in research and innovation, ensuring that the development and deployment of 6G technology align with shared principles and values.

Additionally, a coordination and support action (SNS ICE) seeks to amplify SNS JU's global presence by promoting its perspectives, accomplishments, and results on the international stage. The overarching aim is to steer Europe's technological vision into the 6G standardization process, positioning the continent as a key player in shaping the future of telecommunications. The private sector member of SNS JU, the 6G Industry Association (6G-IA), has further bolstered global cooperation by forging **Memorandums of Understanding (MoUs)** with associations from various international regions such as ENCQOR (Canada), Next G Alliance (North America), Telebrasil – Projeto "5G Brasil" (Brazil), 6G Platform Germany (Germany), TSDSI (India), IMT-2030 (6G) Promotion Group (China), Taiwan Association of Information and Communication Standards (TAICS), Beyond 5G Promotion Consortium (Japan) and 5G Forum (Korea). These collaborative endeavours underscore the commitment to advancing 6G technology worldwide.

1.7.4 Progress against JU-specific Key Performance Indicators



The figures above are based on data in Annex 8 "Scoreboard of Key Performance Indicators specific to the SNS JU."

The monitoring of the KPIs that are specific to the SNS JU is based on data collected from the evaluation and contractual agreement process as well as from the Continuous Reporting tool in COMPASS (e.g. number of projects per topic, funding for low TRL topics, participation of SMEs, publications, standardization contributions, patents etc.).

The 6G KPIs/KVIs is an on-going process. In 2024, a first list of 6G KPIs/KVIs has been further elaborated during the lifecycle of SNS Call 1 and Call 2 projects and especially in Hexa-X-II. The activities will continue in 2025 to have a first set of widely accepted 6G KPIs by the end of SNS Phase 1.

Resources (input), processes and activities KPIs

R#1:
SME innovation & participation

The analysis from the first 2 Calls showed that the SMEs from the selected projects received **24% of the funding budget**. In addition to this, 9 projects operated Financial Support to Third Parties (FSTP), which will expand the number of SMEs involved in the SNS JU programme since, in most cases, FSTP favours the SME participation. In terms of actual participation in Call 1 and Call 2, the selected projects count 136 unique SMEs. The number of SMEs represents **33,25%** out of all the participants (409 stakeholders).

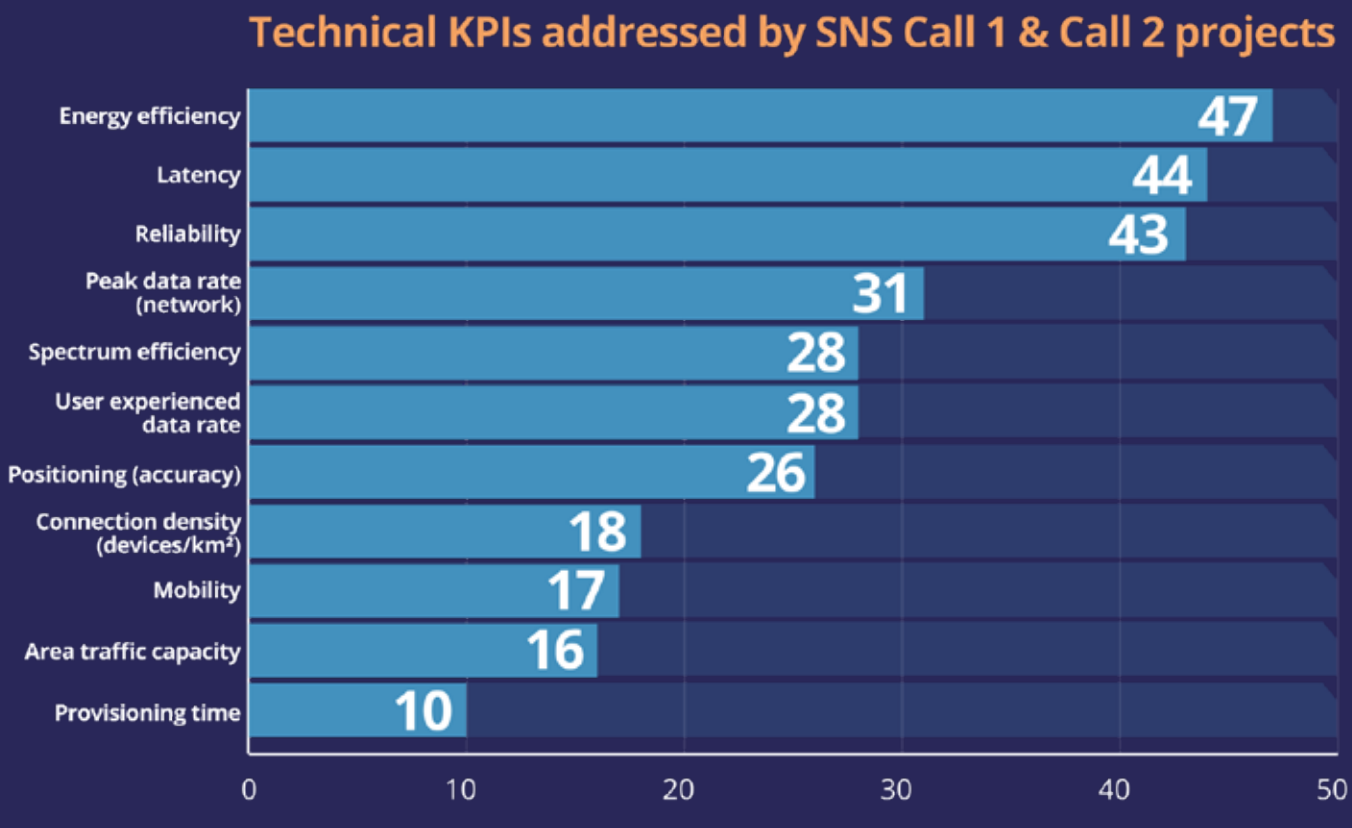
In terms of Call 3, the SMEs from the selected proposals will receive **23% of the funding budget**. In terms of actual participation in Call 3, the selected proposals count **76 SMEs**. Call 3 projects were launched as of January 2025.

R#2:
Rapid diffusion

The SNS projects (Call 1 and Call 2) have reported the organization of **194 events (mainly workshops and webinars)**. Additionally, they have reported participation to **733 industry events (workshops, webinars, exhibitions etc.)**.[7] These numbers demonstrate the increasing impact of SNS projects and the need for disseminating SNS projects' results to the scientific community and the industry worldwide.

R#3:
High risk research funding

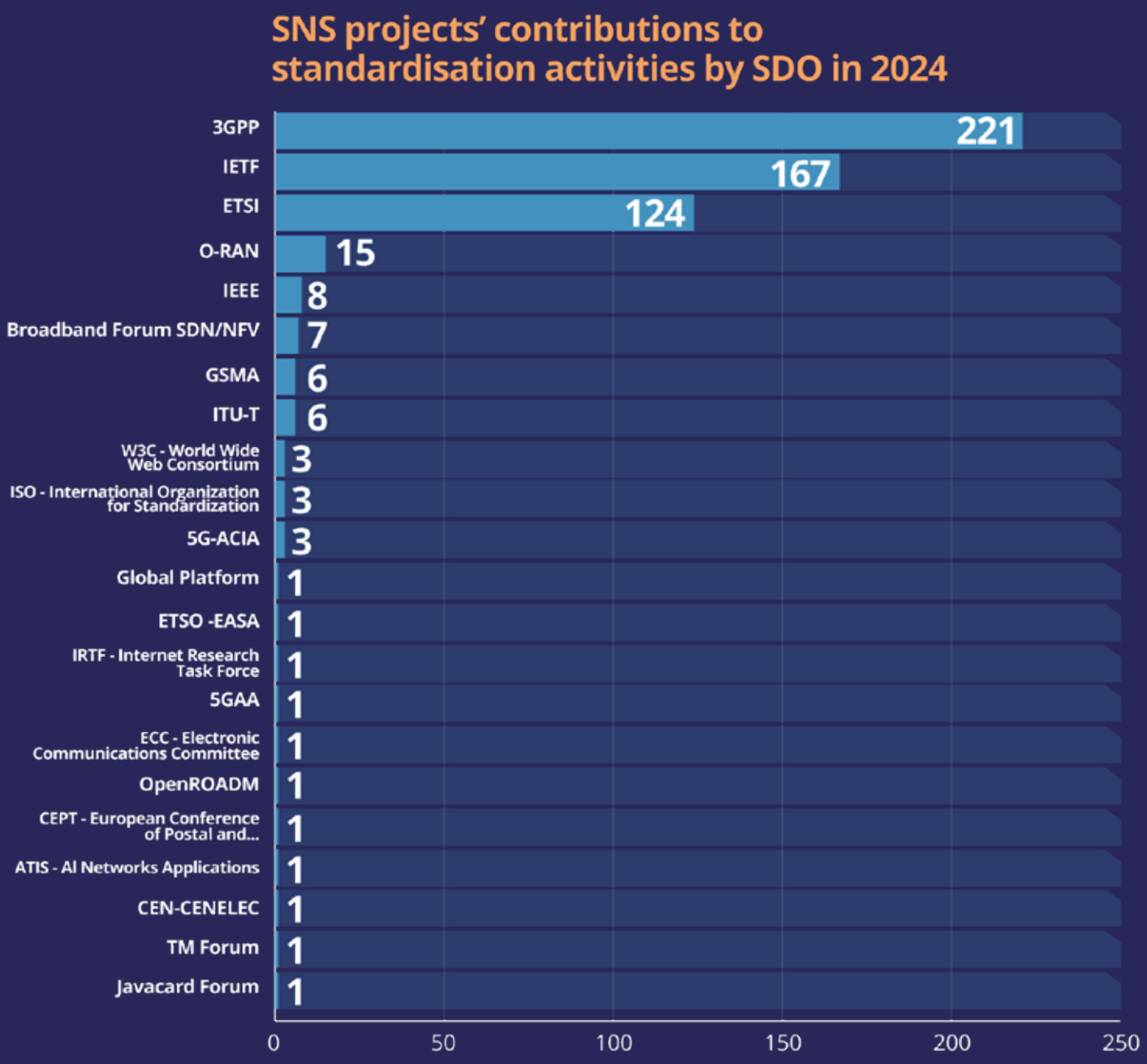
Low TRL activities are considered as High risk. They represented 65,5 % of total funding of Call 1 and Call 2 projects.



7. SNS OPS 2025 Questionnaire on SNS projects

R#4:
Standardisation contributions

Until the end of 2024 the SNS projects have reported **1135 various contributions to standardisation activities** (e.g. contributions to new and revised standards, participations in committees and groups etc.)[8]. Only in 2024, the SNS projects have produced 574 contributions to standards[9]. European contributions to standardisation offer several substantial benefits for the EU key players, stakeholders and consumers, including enhancing interoperability, market efficiency, innovation, global leadership, consumer protection, regulatory compliance, trade facilitation, and security, driving technological progress, economic growth, and societal benefits. SNS JU project achievements on standards are already remarkable. As an example, SNS JU projects, several EU National Initiatives and EU associations created a common European front regarding 6G Use Cases in the 3GPP SA1 meeting in May 2024, maximizing the standardization impact of SNS JU activities.



8. According to the data reported in the EU Funding & Tenders Portal
9. SNS OPS 2025 Questionnaire on SNS projects

R#5:
Share on family patents

SNS Call 1 and Call 2 projects have filled 59 patent/IPR applications in 2024 and 8 of them have been already accepted[10]. The technology areas where SNS projects are filing patents are: Satellite Communications, Network Management and Optimization, Machine Learning and AI, Security and Privacy, Radio and Wireless Technologies, Internet of Things (IoT) and Emerging Network Technologies.

According to several sources, Europe's share on 5G and B5G patent families in 2024 was around **15-17%**[11] (Patently 100, IPlytics). Roughly ¾ of Europe's 5 G patents sit with Ericsson (SE) and Nokia (FI) and the rest is spread across network operators (Vodafone UK, Orange FR), R&D institutes (Fraunhofer DE, TNO NL), and a long tail of SMEs.

R#6:
Scientific excellence

Until the end of 2024, SNS projects produced and disseminated quality knowledge through 1284 publications, including 926 peer reviewed publications in high impact journals and conferences[12]. These figures are way above the target of 400 publications by the end of 2025. It is also commendable that in 110 publications, projects mentioned that they have collaborated with other SNS projects.

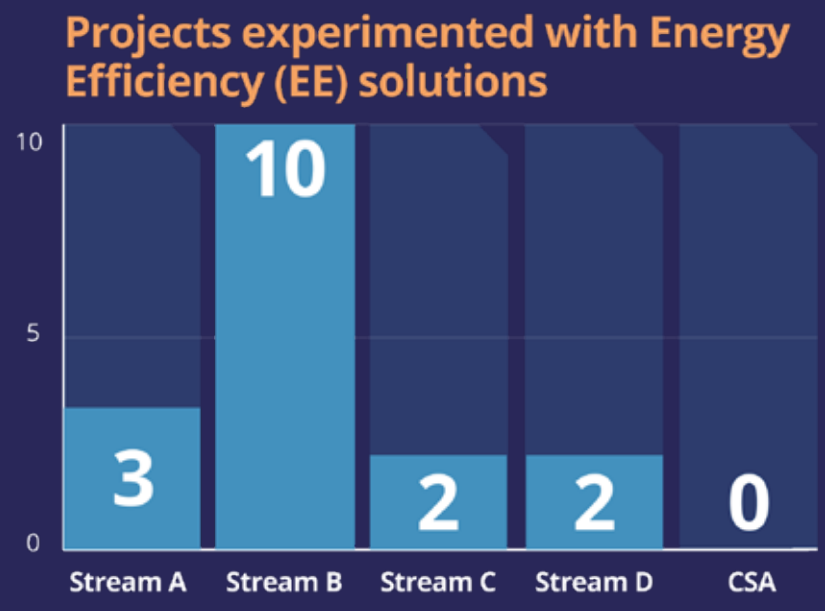
R#7:
Reach an appropriate balance between research, innovation, and deployment

IIn 2024, the SNS JU Phase 1 project portfolio was enlarged by the SNS Call 2 projects. In total, the SNS JU selected and signed Grant Agreements from the two first calls 63 projects (54 RIAs, 6 IAs and 3 CSAs).

SNS R&I WP designed to focus mostly on research activities during initial phases and rebalancing towards large scale trials in the final ones. In current SNS project portfolio (Call 1 and Call 2 projects), 77% of funding was allocated to RIA and 21,5% to IA.

R#8:
Accelerate the development of energy efficient networks

In 2024, 17 projects experimented with Energy Efficiency (EE) solutions. EE Solutions were targeting the following topics: Energy Efficiency in Open RAN, Blockchain & Security-Based Energy Efficiency, Hardware and Computing Power Efficiency, Wireless Communication and IoT Energy Efficiency and Sustainability Metrics and Experimental Validation.



10. According to the data reported in the EU Funding & Tenders Portal
11. "Who Is Leading the 5G Patent Race 2025 Report", LexisNexis and "The world's leading 5G patent owners", Patently 100
12. According to the data reported in the EU Funding & Tenders Portal

R#9:
Ensure research on secure future digital services.

20 Call 1 and Call 2 projects are addressing to a certain degree security related issues. Furthermore 8 projects from SNS Call 3 will also be covering trustworthiness issues (security, reliability and privacy)[13].

R#10:
Collaboration and synergies with other Partnerships

In 2024, SNS JU has established a strong collaboration with Chips JU, Europe's Rail JU and Photonics 21, which will be further strengthened during the following years. As an outcome of the collaboration with the Europe's Rail JU was the EU RAIL–SNS Synergy call on Digital & Automated testing and operational validation of the next EU rail communication system. Out of this call the project FP2-MORANE-2 will be co-funded by both JUs with EUR 13,5 million.

Links to national initiatives, have also been strengthened through the States Representative Group.

Outcomes (SO)

O#1:
Development of energy efficient networks.

This KPI cannot be evaluated yet as the relevant projects (see KPI R#8) have started in 2023 and there is no tangible outcome yet. It is worth mentioning that according to the reference figure of the SNS project portfolio prepared by the SNS JU Technology board, 44% of the SNS Research & Innovation actions are working on energy efficient technologies for B5G and 6G.

Following the launch of SNS collaborative activities (SNS Steering Board & Technology Board) a dedicated task force on sustainability has been setup to investigate among other things the development of energy efficient networks in the context of SNS programme. Results by the sustainability task force (in the form of a joint SNS project white paper) are expected at Q3 2025.

O#2
Technological solutions consensus building.

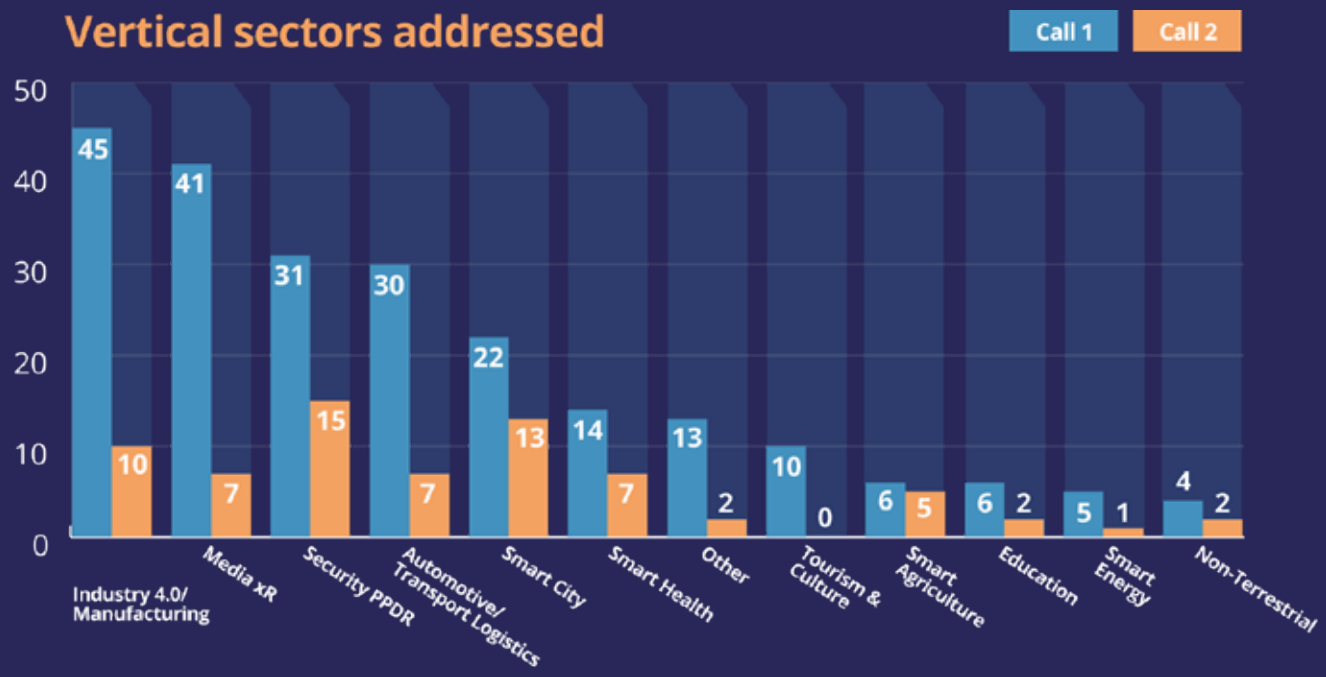
In 2024, there was an acceleration of the collaboration activities among SNS JU project towards building consensus on the technology solutions. In this context, the SNS JU Projects WG on 6G Architecture worked toward the preparation of a white paper on 6G Architectures which will present current architectural considerations explored by the SNS-JU projects. This white paper will be available in 2025. In addition, the Test, Measurement and KPIs Validation Working Group (TMV WG) continued its activities in 2024 focussing on the formalization and validation to the greatest possible extent, of 6G KPI & KVI (societal key value indicators) to ensure a unique European vision on 6G networks. The first outcome of this work will be a white paper on 6G KPIs (published in February 2025).

Another example of fruitful collaboration among the SNS JU projects, several EU National Initiatives and EU associations was the creation of a common European front regarding 6G Use Cases. They submitted their joint proposal for the 6G Use Cases in the 3GPP SA1 meeting in May 2024, maximizing the standardization impact of SNS JU activities

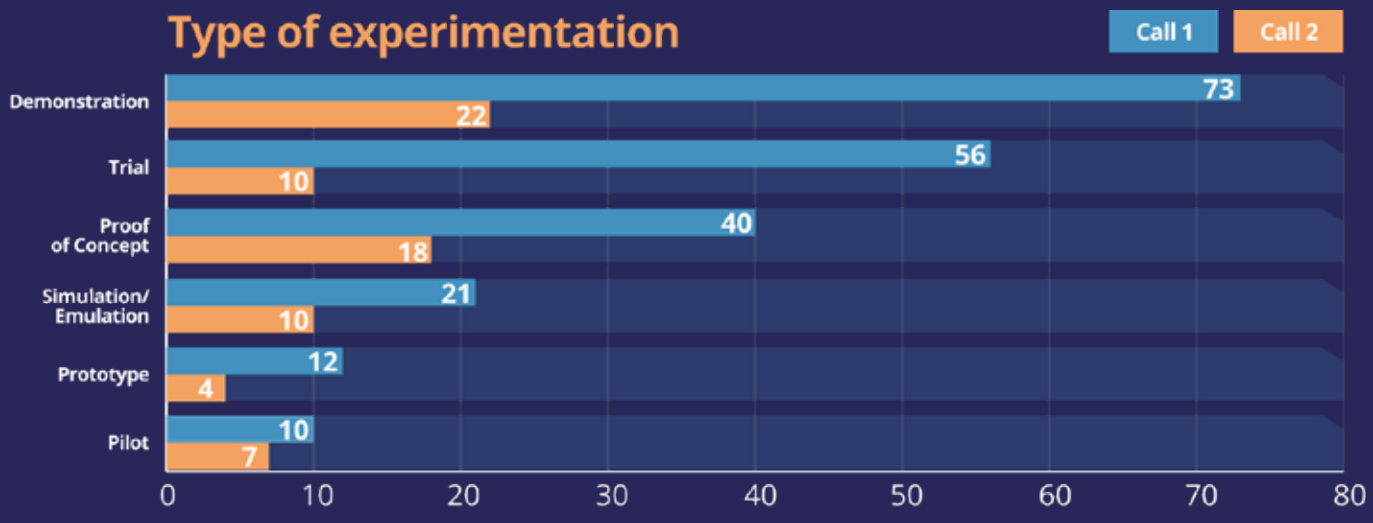
13. SNS OPS 2025 Questionnaire on SNS projects

O#3:
Advanced 6G solutions for verticals

57 Call 1 and Call 2 SNS JU projects are implementing use cases involving vertical industries[14]. These use cases are covering a large set of vertical sectors including Industry 4.0, Media/xR, Security/PPDR and automotive.



The use cases are covering various types of experimentation, including demonstrators, Proof of Concepts, Prototypes and trial & Pilots.

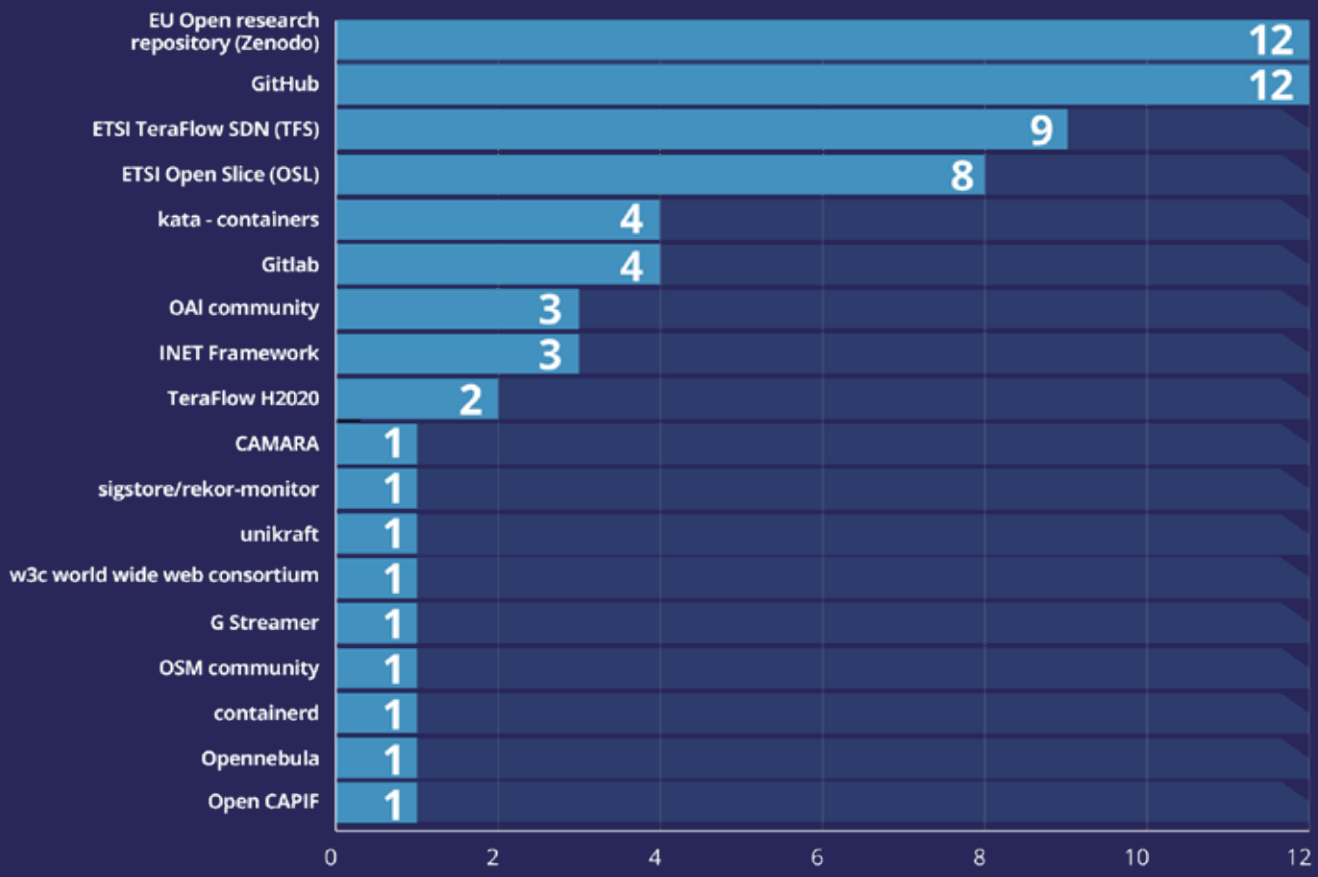


O#4:
Foster emergence of new actors in the 6G supply chain

In 2024 SNS projects (Call 1 and Call 2) had in total 64 contributions to relevant open-source communities.[15]

14. SNS JU Vertical Engagement Tracker
15. SNS OPS 2025 Questionnaire on SNS projects

Approved Contributions to Open-Source Communities



Impacts (GO)

I#1:
A competitive data economy

Based on data from Dell'Oro report in 1H24, Huawei leads the global market of telecom equipment[16] with 31% share followed by NOKIA with 14 % and Ericsson with 13%. Overall, the telecom equipment market declined 11% in 2024 (YoY) from around 94 billion $ in 2023 to 84 billion $ in 2024[17].

I#2:
Reach Programme level consensus on 6G KPIs

So far, the IMT-2030 KPIs[18] are acknowledged as the starting point for SNS work towards a common vision on 6G KPIs (key performance indicators). At the same time the SNS community has already started building upon the results of the 5G PPP; the Test, Measurement and KPIs Validation Working Group (TMV WG) continued its activities in 2024 focussing on the formalization and validation to the greatest possible extent, of 6G KPI & KVI (societal key value indicators) to ensure a unique European vision on 6G networks. The first outcome of this work will be a white paper on 6G KPIs (published in February 2025).

16. Telecom equipment market includes 6 market segments: Broadband Access, Microwave & Optical Transport, Mobile Core Network (MCN), Radio Access Network (RAN), and SP Router & Switch
17. Based on the data analysis carried out by SNS JU on Dell'Oro's report
18. IMT-2030, Framework and overall objectives of the future development of IMT for 2030 and beyond

Furthermore, Hexa-X-II project is responsible for the definition of KPIs and KVIS for the main 6G use cases, while the SNS-OPS project continued monitoring and analysing all SNS project KPIs & KVIs in 2024 through a dedicated questionnaire, which will be addressed to all SNS projects on an annual basis. Finally, the SNS JU projects, several EU National Initiatives and EU associations created a common European front regarding 6G Use Cases and they submitted their joint proposal in the 3GPP SA1 meeting in May 2024, maximizing the standardization impact of SNS JU activities.

I#3:
Uptake of digital solutions within verticals
In 2024, 6 **dedicated ongoing Stream D projects** are engaged with verticals to co-develop largescale trials. 2 new Stream D projects were in the grant preparation phase in 2024. According to vertical cartography tool, there are 283 trials, pilots, and use cases executed by all running SNS JU projects (including FSTP projects) for various vertical market segments.

I#4:
Energy efficiency of telecommunication networks
This KPI cannot be evaluated yet, as the relevant projects (see KPI R#8) started in 2023 and 2024 have no tangible outcomes yet. Several SNS JU projects are working towardsreducing overall the average energy consumption by 50% and to improve the bits/joule metric by five to ten times at peak load, as compared to 5G. According to the reference figure of the SNS project portfolio prepared by the SNS JU Technology board, 44% of the SNS Research & Innovation actions are working on energy efficient technologies for B5G and 6G.The dedicated **Sustainability Task force** tasked to investigate among other things the development of energy efficient networks in the context of SNS programme continued its activities in 2024. Results by the sustainability task force (in the form of a joint SNS project white paper) are expected by Q3 2025.

1.8

Dissemination and information about project results

Overall, the SNS JU has engaged in communication and dissemination efforts, creating valuable connections and collaborations with other projects and initiatives in the communication network technologies and systems fields in the context of 6G global developments.

The SNS JU was very active in presenting the mission and objectives of the JU to diversified audiences and communities, engaging with national and European regulators, local stakeholders, telecoms providers and manufacturers, cloud, open source and AI developers' communities.

With a stable portfolio of 79 projects (Call 1, Call 2 and Call 3), with the support of the CSA, the SNS JU organises annual projects' introduction webinars (Call 3 projects presented to the community and beyond in February 2025).

Meanwhile, the SNS JU projects have contributed collectively to 733 conferences and have organised 194 events (including workshops, sessions, webinars). In 2024, they have also presented 45 times in events.

A series of projects events, workshops and contributions are referenced on the SNS JU Website.

Also, under the lead of Hexa-X-II, the European 6G Flagship that works on a blueprint to design, develop and deploy sustainable, inclusive and trustworthy next-generation networks, many SNS JU projects, as well as national 6G initiatives, came together to contribute to a **European approach to use cases in the 3GPP SA1 standardisation working group**, to provide a coordinated input to the international standardisation body 3GPP which covers specifications and standards for mobile communication technologies. In practice, Europe contributed several 6G future use cases, including their specifications and requirements, emerging and aligning with EU values and priorities in an important R&I series of workshops. This unified vision, thanks to the participation of the SNS JU projects collectively, was a very novel approach and it contributed to provide a European vision on priority use cases in 3GPP ensuring that European priorities and technological innovations are represented on the global stage. This dynamic has spurred further innovation and collaboration at European level and within the SNS JU projects. In 2024 the SNS JU projects were active in preparing the first SNS JU thematic White Papers, published on the SNS JU website.

The SNS JU has been regularly invited to present at different ETSI events in 2024, nurturing fruitful collaboration with the EU Telecommunications Standardisation Institute and ecosystem.

In a nutshell, the overall dissemination activities covered

Website engagement:

The SNS JU website, serving as a central information hub, attracted **73,761 visitors (+34% compared to 2024)** with **116,392 unique pageviews**, indicating a strong interest and engagement from the community.

Social media outreach:

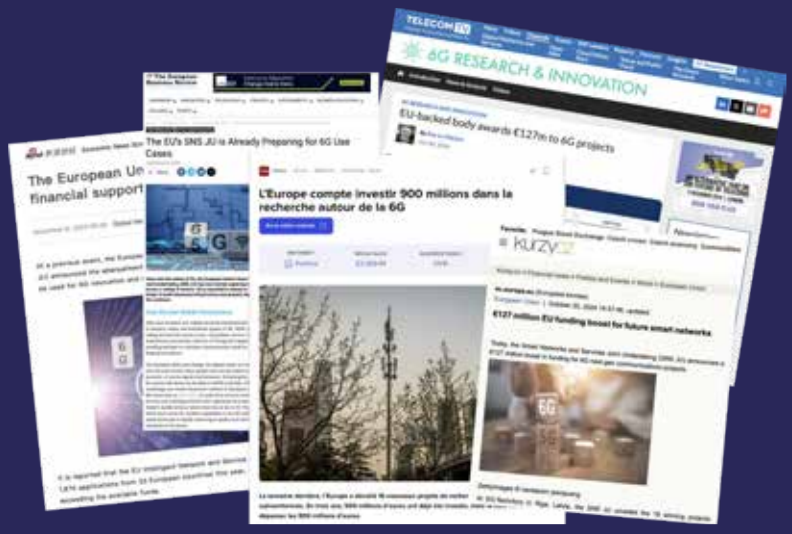
Linkedin has become the main source of traffic for the website, with peaks during online announcements such as the publication of the SNS JU Annual Work Programme and the SNS R&I Work Programme or the winning projects announcement. The SNS JU LinkedIn profile grew steadily, bypassing the **4000 followers** by the end of the year. This continued interest demonstrates the SNS JU's ability to engage a wider audience.

Event participation:

Active participation in events, such as the EuCNC & 6G Summit 2024 and 5G Techritory 2024, as well as the organisation of a SNS JU Session "6G Horizons" at Mobile World Congress 2024, facilitated direct interaction with over **10,000 industry professionals**, researchers, and stakeholders, fostering knowledge exchange and collaboration.

Press coverage and promotional activities:

SNS JU efforts resulted in over 34 press clippings, reaching an audience of more than **7 million readers** worldwide. Additionally, printed and online promotional materials were produced and distributed, further amplifying SNS JU's visibility.



Another important dissemination initiative was the publication of the **SNS Annual Journal** 2024 which was published in June 2024 and distributed at the EUCNC|6G Summit 2024. It can be found in the news release section of the SNS JU website.

The SNS JU Journal 2024 features insights into Call 2 projects, elaborate on early Call 1 project results, and provide a comprehensive overview of the progress made since January 2023. The Journal is readily accessible online in PDF format, a conscious initiative aimed at not only facilitating easy access for readers but also actively supporting sustainability endeavours by significantly lowering the carbon footprint associated with traditional print distribution. In addition to distributing paper copies, a flyer containing a QR code was also provided to accommodate those attendees who preferred a digital option, further aligning with modern preferences and environmental consciousness for reducing paper waste.

Concerning the **scientific dissemination of projects' results**, 2024 was the year of the implementation for 33 R&I SNS projects (RIAs and IAs) and introducing the 28 Call 2 project portfolio. Even though all these projects were at the early stage of their activities, a significant number of scientific publications were produced by the SNS projects, with significant interest in contributions to standards. Most projects' publications were made in highly rated peer reviewed conferences and journals. In total since 2023, there are 1284 publications made by the SNS JU projects and 926 were peer reviewed.

2 Support to Operations

This chapter of our annual report outlines the critical backbone services that enable the SNS JU to function effectively and efficiently. This encompasses a wide range of internal functions essential for the smooth execution of our operations.

In communications, we have focused on enhancing internal and external dialogue to foster a cohesive organizational culture and robust stakeholder engagement. Finance has continued to steward our resources responsibly, ensuring financial sustainability and compliance. Our legal team has diligently safeguarded our operations with proactive legal frameworks and compliance adherence. Information Technology (IT) has been pivotal in upgrading our digital infrastructure, enhancing our cyber security, and improving data management systems. Logistics and procurement have been streamlined to ensure timely availability of resources to support operational needs effectively. Lastly, the Human Resources (HR) department has developed and implemented actions to attract, develop, and retain talented individuals, while also nurturing a workplace that values diversity and inclusion.

Each of these functions plays a vital role in supporting our mission and enhancing our capacity to serve our stakeholders.

2.1 Communication activities

In 2024, the SNS JU continued to expand its communication outreach, reinforcing its role as a central hub for information on 6G research, innovation, 5G implementation and support to policy developments.

By including a new resource, the **Communication Team** increased its capacity to disseminate the SNS JU activities, programme-related updates and information and improved its ability to deliver on events management.

The SNS JU website and social media channels remain key platforms for ensuring visibility, raising awareness about the SNS JU programme, engaging with the European and international R&I community and the broader public.

A key milestone was the announcement of the **SNS JU Call 3** results at **5G Techritory in Riga**. The **SNS JU** led a structured communication campaign, including a tailored video for a live announcement of winning projects, a press release, and dedicated social media outreach, which highlighted the selection of 16 new cutting-edge R&I projects and their contributions to Europe's 6G vision.

Strategic Communication Developments

- **SNS JU Communication Policy & 2025 Communication Plan**: the SNS JU formalised its first Communication Policy and 2025 Communication Plan, outlining its communication strategy, communication goals and the SNS JU core messages, a stakeholder analysis, and strategies for expanding social media presence and online engagement. Additionally, the plan covers key publications and communications channels. The Communication Policy and Plan emphasises events as a strategic tool to enhance the JU's credibility within the European innovation landscape, facilitating direct engagement with stakeholders. It also highlights the importance of event organization, participation, and stakeholder outreach.
- **SNS JU Research and Innovation (R&I) Work Programme 2025**: A dedicated communication strategy was implemented to disseminate key updates about the R&I priorities and the funding opportunities.
- **Annual Activity Report (AAR)**: On **1 July 2024**, the SNS JU published its **first Annual Activity Report**, summarising key achievements of 2023. Key topics included the **financial autonomy of SNS JU, Call1 and Call 2 progress**, SNS JU projects' contributions to strategic objectives, like standardisation, and collaboration with Chips JU and Photonics21.

Event Participation and Management

- **Mobile World Congress (MWC24)**: In February 2024, the SNS JU organised the **"6G Horizon: Bridging Perspectives for a Sustainable Future"** session at Mobile World Congress 2024. This content-rich event gathered more than 200 participants and listed key speakers that offered a diversified view on Europe's 6G research and innovation ecosystem and key activities to strengthen it. The SNS JU actively engaged with on-site key stakeholders, through dedicated booth visits and exchanges with relevant projects and organisations. The SNS JU participation in MWC24 envisioned and deployed a structured communication plan, detailed to cover the run-up to the event, on-site and post event communication activities (press releases, interviews, video, articles and blogpost).
- **EUCNC & 6G Summit 2024**: During the conference, the SNS JU team engaged in several speaking opportunities, including opening and closing the Summit. Paper copies of the SNS Journal 2024 were distributed, prepared and printed by the SNS OP. Thanks to a massive presence, including with the SNS JU and SNS projects booths, this 2024 edition presented the Call 2 projects launched in early 2024 and gave a flavour of the Call 1 project's first achievements after one year of operation.
- **5G Techritory**: with a dedicated communication strategy and a tailored-made video announcement, the **SNS JU** presented publicly the 16 newly selected projects of **SNS JU Call 3 to the wider policy and innovation audience**.

The SNS JU also attended other key events where the team participated with keynotes, presentations and panels contributions. This included the **ETSI SNS4SNS Conference** focusing on open-source collaboration and standardisation as key enablers of 6G deployment or the **European 5G Conference**, where the SNS JU was represented in high-level discussions on lessons learned from 5G and the path to 6G.

In October 2024, the **EU Agencies Network Exhibition (EUAN), with the contribution of all its members**, organised at the European Parliament of Brussels the annual event. The SNS JU, together with other 51 EU Agencies, organized an exhibition to discuss about 5G/6G technology and what we are doing to make Europe a leader in this sector.

Strengthened Digital Communication

The SNS JU significantly increased its presence on **LinkedIn** and **Twitter/X**, while **YouTube** remains an important channel for documenting the activities of our projects. We are also exploring new digital environments like **Mastodon** platform, with a consistent and strategic approach to content development. The SNS JU LinkedIn page grew to 4,000 followers, engaging stakeholders from industry, academia, and public institutions.

The SNS JU website continued to serve as a primary information hub, regularly updated with Calls and Work Programme details, funding opportunities, event announcements, and project highlights. A landing page was developed for major events like **MWC25**, allowing for real-time registration tracking and attendee engagement.

Cross-JU Collaboration: The SNS JU maintained strong synergies with other Joint Undertakings, including Chips JU and Photonics21, ensuring alignment on research topics and technological developments and communication on joint synergy projects, such as with Europe's Rail JU.

2.2

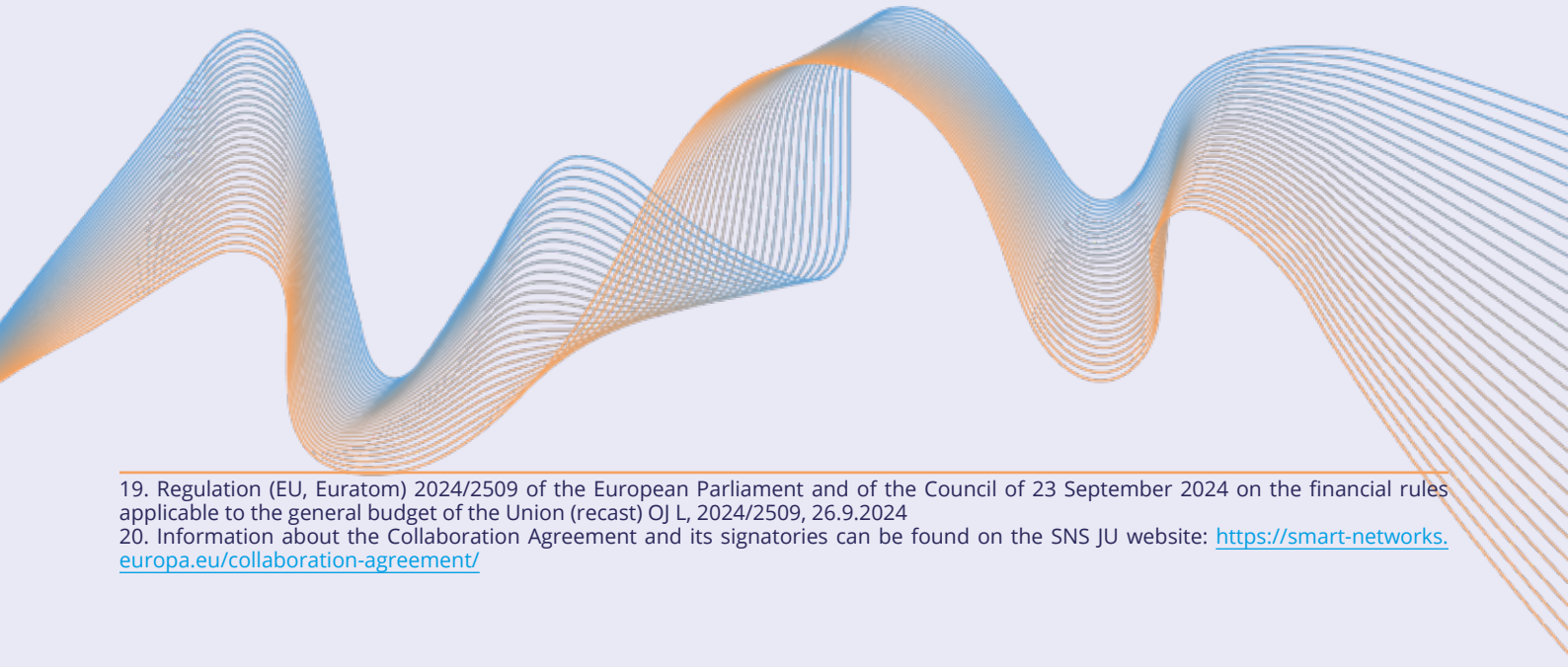
Legal and financial framework

In 2024, the European Union (EU) introduced significant updates to its legal and financial frameworks, notably through the recast of the Financial Regulation[19] . The recast Regulation enhances financial management and streamlines procedures, which is crucial for SNS JU, given the multi-party involvement. By simplifying financial rules and ensuring greater legal clarity, the Regulation enables SNS JU to manage EU funds more effectively, reducing administrative burdens and facilitating smoother collaboration between public and private entities. Moreover, the updated financial rules help improve transparency in the allocation and use of funds, which is particularly important for SNS JU that is responsible for significant investments in cutting-edge projects.

At SNS JU level, the Governing Board took several pivotal steps to strengthen the organization's operations and governance. Key decisions included the establishment of the SNS JU Staff Committee, a move aimed at enhancing internal communication and support for staff. The adoption of the Common Research Family Anti-Fraud Strategy (RAFS) by analogy as the SNS JU Anti-Fraud Strategy underscores the SNS JU's commitment to integrity and transparency, ensuring the responsible use of resources. Additionally, the adoption of the Internal Audit Charter and the implementation of comprehensive Audit and Disciplinary Procedures reflect the JU's dedication to robust financial oversight and accountability. These initiatives are essential in laying the foundation for SNS JU's continued success and efficient functioning.

The SNS JU Governing Board made a significant move by endorsing an updated version of the Collaboration Agreement model (GB decision 08/2024), to be signed between 6GIA and SNS JU beneficiaries. This update was prompted by a new provision in Annex 5 of the Model Grant Agreement (MGA) under Horizon Europe, specifically impacting SNS JU and Clean Aviation JU. The provision requires SNS JU beneficiaries to sign a written agreement to ensure seamless coordination and collaboration across all SNS JU-funded initiatives.

Designed to foster a more integrated and cohesive approach, this updated agreement emphasizes key areas such as information sharing, standardisation, communication, and regulatory alignment. These elements are critical for driving success in SNS JU projects. The amendment ensures that the Collaboration Agreement fully aligns with the updated MGA provisions, establishing a clear framework for governance and operational coordination among all SNS JU participants, in line with the new requirement for close cooperation[20].



19. Regulation (EU, Euratom) 2024/2509 of the European Parliament and of the Council of 23 September 2024 on the financial rules applicable to the general budget of the Union (recast) OJ L, 2024/2509, 26.9.2024
20. Information about the Collaboration Agreement and its signatories can be found on the SNS JU website: https://smart-networks.europa.eu/collaboration-agreement/

2.3 Budgetary and financial management

The 2024 Budget of the SNS Joint Undertaking was approved by the Governing Board on 23/11/2023 (GB Decision 21/2023). The commitment appropriations approved amounted to EUR 132.609.699, and the payment appropriations to EUR 132.833.731. This is the total budget for 2024.

The budget of 2024 was effectively executed. On the revenues the implementation rate is 100%, and on the expenditure the implementation rate of commitment appropriations is 99%, and that of payment appropriations is 96%. The 2024 budget execution represents the first full year of autonomous activity of the Joint Undertaking after being granted financial autonomy on 24 October 2023.

Revenue

The sources of revenue are the European Union, the European Free Trade Association (EFTA) and the Private Member, the 6G-Industry Association (6G-IA). The contributions to the SNS Joint Undertaking indicated in the Annual Work Programme were made in accordance with the provisions of the respective agreements. The revenue implementation rate is 100%.

Budget implementation January - December 2024	Voted Budget 2024	Implemented	%
EU contribution	127.551.391	127.551.391	100%
EFTA contribution	4.515.319	4.515.319	100%
Industry Association contribution	767.021	767.021	100%
TOTAL	**132.833.731**	**132.833.731**	**100%**

In October 2023 the European Union, represented by the European Commission (DG CNECT) and the SNS Joint Undertaking signed the Financial Framework Partnership Agreement (FFPA) which defines the budget implementation tasks that are entrusted to the Joint Undertaking under Council Regulation 2021/2085 and funded from Horizon Europe. The Agreement establishes the rules for the implementation and for the payment of the Union's contribution and defines the relations between the Joint Undertaking and the European Commission. In July 2024 a new version of the FFPA (amendment) was signed by the European Commission (DG CNECT) and the SNS Joint Undertaking, mainly to introduce the provisions related to the synergy call. This was aligned with the Annual Work Programme (AWP) 2024 of the SNS Joint Undertaking that includes the participation of the SNS Joint Undertaking in a synergy call managed by Europe's Rail Joint Undertaking.

In February 2024 the Commission and the SNS Joint Undertaking signed the Contribution Agreement for 2024. Within the frame of the FFPA and the Contribution Agreement, the SNS JU requested a provisional pre-financing for a total EUR 131.755.085 in accordance with article 19 of the FFPA. The amount is composed of an administrative component of EUR 2.250.515 and an operational component of EUR 129.504.570. The total amount was cashed in July 2024. It is to be considered that the amount requested from DG CNECT differs from the voted payment appropriations 2024 by EUR 311.625. This is the budget allocated to the expert evaluators 2024 of SNS JU that was managed by REA in accordance with its mandate.

In April 2024 the 6G-IA and the SNS JU signed the annual contribution agreement for EUR 767.021 to cover part of the administrative expenditure of the Joint Undertaking for 2024. The amount was cashed by September 2024.

Expenditure

The statement of expenditure is composed of three titles: Title 1 Staff expenditure, Title 2 Infrastructure and operating expenditure and Title 3 Operational expenditure. Title 1 and Title 2 are of administrative nature, and the Title 3 is of operational nature.

The total budget implementation rate of 2024 is 99% on commitment appropriations and 96% on payment appropriations. The budget implementation rates of Title 1 are 92% and 90% on commitment and payment appropriations, respectively. The budget implementation rates of Title 2 are 59% and 66% for commitment and payment appropriations, respectively. The budget implementation rates of Title 3 are 99% and 97% for commitment and payment appropriations, respectively.

	Commitment appropriations			Payment appropriations		
Budget implementation January - December 2024	**Voted Budget 2024**	**Implemented**	**%**	**Voted Budget 2024**	**Implemented**	**%**
Title 1 Staff espenditure	2.187.272	2.014.856	92%	2.187.272	1.977.789	90%
Title 2 Infrastructure and operating expenditure	830.264	493.494	59%	830.264	547.806	66%
Title 3 Operational expenditure	129.592.162	128.385.413	99%	129.816.195	125.612.518	97%
TOTAL	**132.609.699**	**130.893.763**	**99%**	**132.833.731**	**128.138.113**	**96%**

By nature of expenditure, the budget implementation rates of administrative expenditure are 83% and 84% and those of operational expenditure are 99% and 97% on commitment and payment appropriations, respectively. The administrative and operational expense represent the 2% and 98% of the total budget implemented in 2024.

		Commitments	Payments
Administrative		2.508.350	2.525.595
Operational	Call 1 (2022)	0	25.156.855
Operational	Call 2 (2023)	0	0
Operational	Call 3 (2024)	127.385.413	99.955.663
Operational	Synergy call (2024)	1.000.000	500.000
	TOTAL	**130.893.763**	**128.138.113**

Statement of revenue:	**Voted budget 2024**	
Heading	**Commitment appropriations (in EUR)**	**Payment appropriations (in EUR)**
EU contribution excl. EFTA	**127.335.018**	**127.551.391**
of which Administrative	2.173.571	2.173.571
of which Operational	125.161.447	125.377.820
Third countries contribution including EFTA	**4.507.660**	**4.515.319**
of which Administrative	76.944	76.944
of which Administrative third countries excluding EFTA	0	0
of which Operational	4.430.715	4.438.375
Industry financial contribution	**767.021**	**767.021**
of which Administrative	767.021	767.021
of which Operational	0	0
Other revenue	**0**	**0**
SUB-TOTAL REVENUES	**132.609.699**	**132.833.731**
Reactivation of unused appropriations from administrative expenditure	**0**	**0**
Of which from 2021	0	0
Of which from 2022	0	0
Of which from 2023	0	0
Reactivation of unused appropriations from operational expenditure	**0**	**0**
Of which from 2021	0	0
Of which from 2022	0	0
Of which from 2023	0	0
TOTAL	**132.609.699**	**132.833.731**

Statement of Expenditure (Commitment appropriations)	Budget 2024 (AWP)	Budget 2024 after transfers	Executed Budget 2024	%	Carry over to 2025	Available for future use (N+3 rule)
Title 1 - Staff expenditure	**2.187.272**	**2.187.272**	**2.014.856**	**92%**	**0**	**172.416**
Salaries & allowances	1.968.272	1.954.672	1.829.132	94%	0	125.540
Expenditure relating to Staff recruitment	30.000	5.000	0	0%	0	5.000
Mission expenses	30.000	30.000	25.130	84%	0	4.870
Socio-medical infrastructure	25.000	25.000	3.000	12%	0	22.000
Training	10.000	10.000	9.925	99%	0	75
External services	25.000	56.100	56.036	100%	0	64
Receptions, events and representation	5.000	12.500	6.152	49%	0	6.348
Social welfare	74.000	74.000	69.869	94%	0	4.131
Other staff related expenditure	20.000	20.000	15.612	78%	0	4.388
Title 2 - Infrastructure and operating expenditure	**830.264**	**830.264**	**493.494**	**59%**	**0**	**336.771**
Rental of buildings and associated costs	150.000	150.000	75.000	50%	0	75.000
Information, communication technology and data processing	250.000	275.000	253.022	92%	0	21.978
Movable property and associated costs	50.000	50.000	0	0%	0	50.000
Current administrative expenditure	169.264	149.264	147.759	99%	0	1.505
Postage / Telecommunications	15.000	15.000	1.417	9%	0	13.583
Expenditure on formal meetings	16.000	11.000	295	3%	0	10.705
Running costs in connection with operational activities	60.000	60.000	16.000	27%	0	44.000
Information and publishing	0	0	0	0%	0	0
Studies	0	0	0	0%	0	0
Other infrastructure and operating expenditure	120.000	120.000	0	0%	0	120.000
Title 3 - Operational expenditure	**129.592.163**	**129.592.163**	**128.385.413**	**99%**	**0**	**1.206.750**
Previous years' Calls/other funded actions	0	0	0	0%	0	0
Current year's Calls/other funded actions	128.879.663	128.879.663	127.897.478	99%	0	982.185
Experts' evaluations	311.625	311.625	311.625	100%	0	0
Expert reviewers	400.875	400.875	176.310	44%	0	224.565
Other operational expenditure	0	0	0	0%	0	0
TOTAL	**132.609.699**	**132.609.699**	**130.893.763**	**99%**	**0**	**1.715.936**

Statement of Expenditure (Payment appropriations)	Budget 2024 (AWP)	Budget 2024 after transfers	Executed Budget 2024	%	Carry over to 2025	Available for future use (N+3 rule)
Title 1 - Staff expenditure	**2.187.272**	**2.187.272**	**1.977.789**	**90%**	**0**	**209.483**
Salaries & allowances	1.968.272	1.960.772	1.829.132	93%	0	131.640
Expenditure relating to Staff recruitment	30.000	5.000	0	0%	0	5.000
Mission expenses	30.000	30.000	25.130	84%	0	4.870
Socio-medical infrastructure	25.000	25.000	1.064	4%	0	23.936
Training	10.000	10.000	9.175	92%	0	825
External services	25.000	50.000	27.387	55%	0	22.613
Receptions, events and representation	5.000	12.500	5.353	43%	0	7.147
Social welfare	74.000	74.000	69.869	94%	0	4.131
Other staff related expenditure	20.000	20.000	10.679	53%	0	9.321
Title 2 - Infrastructure and operating expenditure	**830.264**	**830.264**	**547.806**	**66%**	**0**	**282.458**
Rental of buildings and associated costs	150.000	206.100	205.778	100%	0	322
Information, communication technology and data processing	250.000	250.000	242.116	97%	0	7.884
Movable property and associated costs	50.000	50.000	0	0%	0	50.000
Current administrative expenditure	169.264	113.164	88.728	78%	0	24.436
Postage / Telecommunications	15.000	15.000	417	3%	0	14.583
Expenditure on formal meetings	16.000	16.000	295	2%	0	15.705
Running costs in connection with operational activities	60.000	60.000	10.471	17%	0	49.529
Information and publishing	0	0	0	-	0	0
Studies	0	0	0	-	0	0
Other infrastructure and operating expenditure	120.000	120.000	0	0%	0	120.000
Title 3 - Operational expenditure	**129.816.195**	**129.816.195**	**125.612.518**	**97%**	**0**	**4.203.677**
Previous years' Calls/other funded actions	0	0	0	0%	0	0
Current year's Calls/other funded actions	129.103.695	129.103.695	125.128.858	97%	0	3.974.837
Experts' evaluations	311.625	311.625	311.625	100%	0	0
Expert reviewers	400.875	400.875	172.035	43%	0	228.840
Other operational expenditure	0	0	0	0%	0	0
TOTAL	**132.833.731**	**132.833.731**	**128.138.113**	**96%**	**0**	**4.695.618**

Financial and in-kind contributions from Members other than the Union

Contributions from JU Members other than the Union in 2024	
Nature	**Amount (in €)**
Financial contributions (FC) reported	767.021
In-Kind to Operational Activities (IKOP) reported	12.065.132
In-Kind to Additional Activities (IKAA) reported	135,391,957
In-Kind to Additional Activities (IKAA) reported and certified	135,391,957
TOTAL all contributions reported	**148,224,110**
TOTAL all contributions reported, including certified IKAA	**148,224,110**

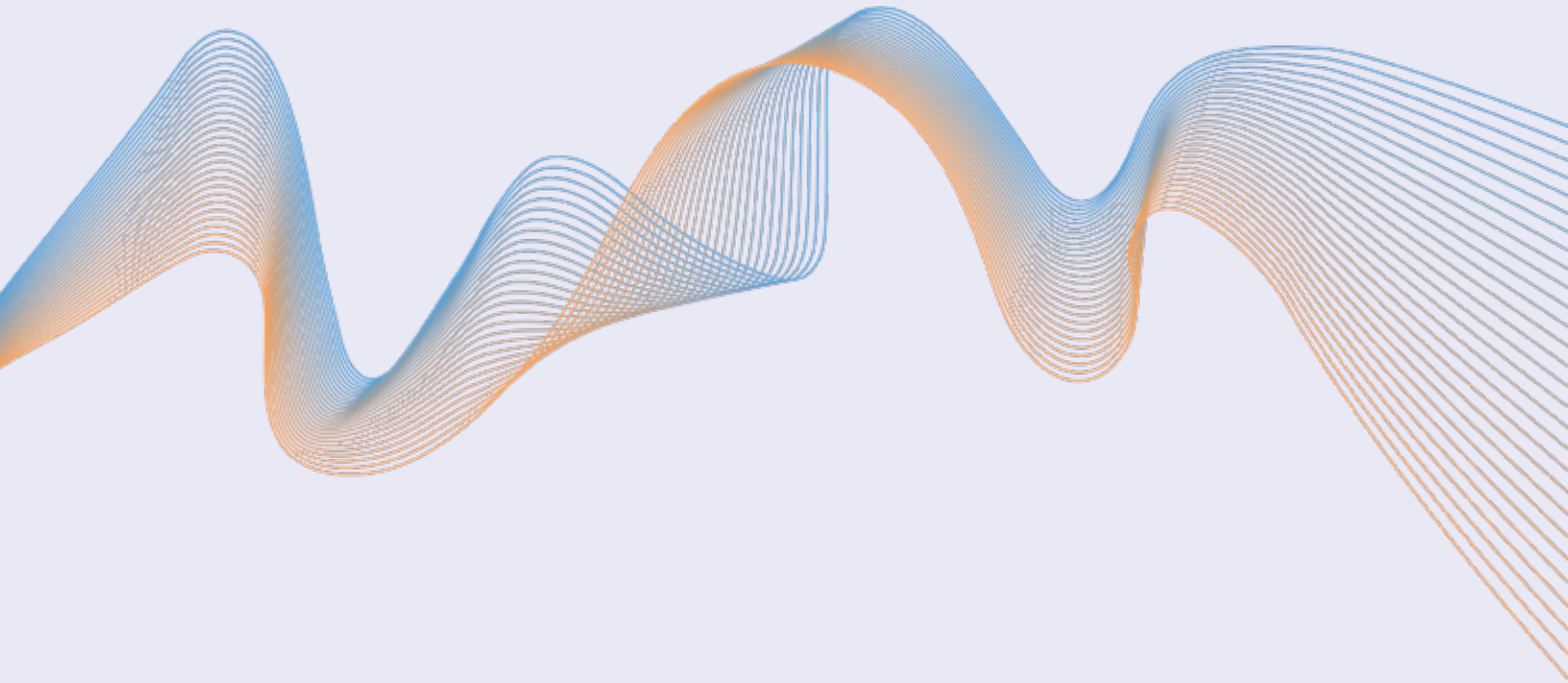
Values of IKOP - Evolution (in EUR)				
Reference of the Project-Call	**Total amount of IKOP planned for the projects**	**Amount of IKOP reported before 2024**	**Amount of IKOP reported in**	**Total Amount of IKOP certified until 2024**
Call 1	29.774.691	0	11.437.797	0
Call 2	13.878.209	0	462.580	0
Call 3	8.937.235	0	0	0
Synergy call (EURail)	3.179.079	0	0	0
TOTAL	**55.769.214**	**0**	**12.065.132**	**0**

Values of certified IKAA – Evolution (in EUR)	
Year	**Amount of certified IKAA**
2021	0
2022	85,727,940
2023	116,182,773
2024	135,391,957
TOTAL	**337,302,670**

In line with to Article 11 of the Single Basic Act- SBA[21] the contributions of 6G-IA, the Private Member of the SNS JU, shall consist of financial contributions, in-kind contributions to operational activities ("IKOP") and in-kind contributions to additional activities ("IKAA") (subject to their approval by the Governing Board). Article 163 of the Single Basic Act provides that the 6G-IA shall make or arrange for their constituent or affiliated entities:

- to make a total contribution of at least € 900.000.000 over the MFF 2021-2027 period, ending on 31 December 2031;
- to make an annual financial contribution to the administrative costs of the SNS JU of at least 20% of the total administrative costs and to endeavour to increase this contribution to 50% over the lifetime of the SNS JU, taking due account of their constituent and affiliated entities that are SMEs.

In case of SNS JU, the private members of the industry association 6G-IA will contribute with in-kind contributions to the activities of the Joint Undertaking. There are two types of in-kind contributions: in-kind contributions to operational activities (IKOP) and in-kind contributions to additional activities (IKAA). The IKOP comprises contributions from private members consisting of the eligible costs incurred by them in implementing specific indirect actions (funded projects) less the contribution of the Joint Undertaking to those costs. The IKOP reported will be validated and accepted by the Joint Undertaking according to the legal requirements established. The target for 2024 at programme level is a minimum of 6%. The IKAA are associated to the implementation of additional activities by the private members that contribute to the objectives of the Joint Undertaking but are not directly linked to the legal entity of the Joint Undertaking nor under its control. In the 6G-IA commitment letter the plan is that 6G-IA will contribute around EUR 50,000,000 in IKOP and EUR 850,000,000 on IKAA.



21. This Council Regulation (EU) 2021/2085 of 19 November 2021 establishing the Joint Undertakings under Horizon Europe is also equally named "Single Basic Act (SBA)" or "Founding Regulation" in SNS JU documents; OJ L 427, 30.11.2021, p. 17

2.4

Administrative Procurement and contracts

The Joint Undertaking launched some procurement procedures in 2024 to cover administrative needs. The purpose was mainly the contracting of services to external contracts via very low value negotiated procedures and by order forms and specific contracts of an inter-institutional framework contract. The SNS JU participated in joint inter-Joint Undertakings procurement procedures within the frame of the Back Office Arrangement (BOA) on Procurement in accordance with the Single Basic Act and with the purpose of creating synergies, gaining efficiency and reducing costs. No procurement is associated to the operational budget.

Subject of the contract	Type of Contract	Contractor	Tender Procedure [if applicable]	Signature date	Amount
6G panel event at the MWC 2024	Services contract	GSMA Limited	Negotiated procedure very low value	19-02-2024	10.000
Meeting catering March 2024	Purchase order	Gusto Communications SRL	FWC JUS-CAJU. OP.2023.01-01	22-03-2024	203
Language course Lot 4 French	Purchase order	CLL ASBL	FWC HR/2020/ OP/0014-LOT 4	22-11-2024	1.396
Microsoft licenses renewal 2024-2025	Purchase order	Insight Belgium	DIGIT DI-08090-SIDE III-OF6002	24-05-2024	14.639
Printing services 2024	Order form	Canon Belgium NV	FWC DI/07560-linked to OF643	janv-24	1.000
Interimaire Communications July-December 2024	Specific services contract	Randstad Belgium	FWC HR/R1/ PR/2019/023	24-06-2024	30.974
Accounting expert 2024	Specific services contract	Ernst & Young Bedrijfsrevisoren	SNS JU-EU-RAIL. OP.02.22/LOT2/01	26-09-2024	26.000
Audit accounts 2024	Specific services contract	Baker Tilly Belgium Bedrijfsrevisor	SNS JU-EU-RAIL. OP.02.22/LOT1/01	04-11-2024	21.375
Staff gathering September 2024	Purchase order	Gusto Communications SRL	FWC JUS-CAJU. OP.2023.01-01	11-09-2024	421
Coffee break for meeting September 2024	Purchase order	Gusto Communications SRL	FWC JUS-CAJU. OP.2023.01-01	26-09-2024	92
Staff gathering November 2024	Purchase order	Gusto Communications SRL	FWC JUS-CAJU. OP.2023.01-01	04-11-2024	192
Interimaire on Communications January-February 2025	Purchase order	Randstad Belgium	FWC HR/2024/ OP/0095	05-11-2024	14.672
Purchase of Adobe licenses 2024-2025	Purchase order	Bechtle Brussels NV	DIGIT DI/08031-SIDE III-OF 104918	27-11-2024	316
Interimaire on IT November-December 2024	Purchase order	AIB NV	FWC HR/2024/ OP/0095	06-11-2024	10.390
Interimaire on IT January-May 2025	Purchase order	AIB NV	FWC HR/2024/ OP/0095	19-12-2024	31.170
Trainer team building 17/12/2024	Purchase order	Improbubble SRL	Negotiated procedure very low value	04-12-2024	4.000

Subject of the contract	Type of Contract	Contractor	Tender Procedure [if applicable]	Signature date	Amount
Catering and room team building 17/12	Purchase order	Mix Event SRL	Negotiated procedure very low value	05-12-2024	2.439
Team lunch June 2024	Direct order	Beautifood SRL	Payment against invoice	31-06-2024	1.000
Office supplies	Online order	Lyreco Belgium SA/ NV	Payment against invoice	04-04-2024	904
Architectural advice	Specific services contract	Conext Atelier 4/5	FWC/JUS. CHIPS.2024.NP.01	19-12-2024	19.460
Data protection legal services 2024-2025	Inter JU services contract (renewal SC 4)	Daldewolf-Privanot	EURAIL/FWC S2R.19.OP.02-LOT 3	03-08-2024	19.320
Coffee and water supplies 2025	Inter JU order form	Julius Meinl AQUA VITAL	FWC/JUS-CAJU.2023.NP.01-NP.02	20-11-2024	2.500
Coffee and water supplies 2024	Inter JU order form	AQUA VITAL	FWC/JUS-CAJU.2023.NP.02	14-06-2024	1.110
Onboarding SNS and Global Health Intune finalisation study for 8 JUs	Inter JU services contract (SC 6)	Inetum Belgium	FWC/JUs-CAJU.2022.OP.02	15-04-2024	32.956
Acquisition of new landline numbers	Inter JU order form	BT Global Services Belgium	FWC VOICE NP DI-08000 (VOICE II)	11-12-2024	417
Legal and operational support to data protection activities	Inter JUs services contract (SC 1)	SESAR 3 Joint Undertaking	S3JU/2024/ OP/0002 SESAR 3 JU	09-12-2024	11.000
Remotely invigilated exams-Test and supervision for 9 JUs	Specific services contract	CBE JU	FWC DI/08030 SIDE III DPS MC1	17-07-2024	4.620
Inter JUs drink June 2024	Inter JU services contract	Gusto Communications SRL	FWC JUS-CAJU. OP.2023.01-01	30-10-2024	909
Teambuilding HR 2024 Inter Joint Undertakings	Inter JU services contract	Mix Events SRL	Negotiated procedure very low value	24-05-2024	392
IT expenditure based on the BOA ICT for IAAS+CAJU	Inter JU services contract	CAJU	FWC/JUs-CAJU.2022.OP.02	17-07-2024	8.000
BOA ICT - Total AWP 2024	Inter JU services contract	CAJU	FWC/JUs-CAJU.2022.OP.02	17-07-2024	17.000
BOA ICT - Testa DIGIT Solutions	Inter JU services contract	CAJU	FWC/JUs-CAJU.2022.OP.02	17-07-2024	18.000
Training on prevention for harassment of JUs staff	Inter JU services contract	IHI JU	2023	18-10-2024	729
Amendment 5 Rental of White Atrium building	Usufruct agreement	Codabel Management	non applicable	19-02-2024	n.a.
Amendment 6 Rental of White Atrium building	Usufruct agreement	Codabel Management	non applicable	10-07-2024	n.a.

Subject of the contract	Type of Contract	Contractor	Tender Procedure [if applicable]	Signature date	Amount
Amendment 1 Facility Management White Atrium building	Services contract	Codabel Management	non applicable	02-08-2024	n.a.
SLA Back Office Arrangement on ICT	Service Level Agreement	CAJU	non applicable	07-2024	n.a.
SLA Back Office Arrangement on HR	Service Level Agreement	CBE JU	non applicable	06-06-2024	n.a.
SLA on European Agency Network (EUAN) Shared Support Office (SSO)	Service Level Agreement	European Food Safety Authority (EFSA)	non applicable	09-04-2024	1.500
SLA on Hermes, ARES, Noncom (HAN)	Service Level Agreement	Secretariat General of the EC	non applicable	02-12-2024	8.000
SLA DG HR - Appendix on HR Transformation (HRT)	Service Level Agreement	DG HR	non applicable	02-09-2024	6.400
Services 2024: postal, office supplies and printing/graphics	Other Agreements	Office Infrastructure & Logistics Brussels (OIB)	non applicable	24-06-2024	8.614
Agreement 2024: translation services	Arrangement	Translation Center for the Bodies of the European Union (CdT)	non applicable	22-07-2024	2.500

2.5
IT and logistics

Corporate SNS JU IT

In 2024 the JU ensured a stable and secure IT system, provided IT support to staff in the use of IT applications and equipment and cooperated with the Commission to ensure synergy and efficient use of resources. The JU also ensured expansion and relevant upgrades of the IT system in order to respond to the needs of the organisation.

In particular, the JU followed-up and monitored the implementation of the service delivery plan ensuring maintenance and upgrades are done as necessary. Most part of the activities above were carried out through the efficient implementation of the Service Level Agreement with DG DIGIT which covers the Digital Workplace services as well as other key services like IT procurement.

European Commission IT tools

In 2024 the SNS JU contributed to the discussion with the Commission and other JUs in order to follow up on the adjustments needed to allow and ensure smooth functioning of Horizon Europe IT tools.

IT Autonomy

In 2024 several steps were taken towards achieving the JU's IT autonomy as follows:

- The new SNS laptops have been staged
- EU logins for all users have been created
- Email accounts for all users have been created
- Microsoft licences have been renewedCloud-based phone lines have been acquired and associated with MS TEAMS
- Adobe Acrobat licences have been purchased
- Received consultancy services for improving information security
- Several DIGIT FWCs have been onboarded

Logistics

SNS JU is located into the White Atrium Building further to the conclusion of a Usufruct Agreement. This location is strategic since the White Atrium Building hosts eight Joint Undertakings allowing further collaboration and synergies. End 2024 the contract for the architectural study for the SNS JU office refurbishment was signed. The refurbishment is essential to provide an appropriate office space to the staff.

2.6 Human Resources

2.6.1 HR Management

SIR implemented in 2024	
Title of the SIR	**Reference and date of the GB decision**
The setting-up a SNS JU Staff Committee	*SNS GB decision 2/2024 of 04 March 2024*
Disciplinary procedures	*SNS GB decision 6/2024 of 04 March 2024*

In 2024 SNS JU adopted two Governing Board Decisions in the area of Human Resources enabling the JU to foster a solid and compliant working Framework in the area of Human Resources.

Rules concerning the implementation of SNS in recruitment and the duration and renewal of contracts have been adopted by Executive Director to provide the SNS JU with a compliant HR policy framework.

In terms of recruitment, SNS JU recruited three contractual agents in 2024. With the recruitments above SNS JU has reached the target defined in the staff establishment plan.

	2024
Establishment plan posts: Temporary Agents (TA)- Administrators (AD)	*7 (7 of 7 in establishment plan)*
Establishment plan posts Management positions: TA-AD	*3 (3 of 3 in establishment plan)*
Gender balance in management positions	*67% Male, 33% Female*
Contract Agents total SNS	*10 (10 out of 10 in establishment plan)*
Recruitment achievement	*Total 3 (3 Contract agent)*
Occupational rate SNS	*Total SNS: 100% (TA-AD 100%; CA 100%)*
(total foreseen staff in the establishment plan 17)	
% turnover	*N.A.*

2.6.2 Efficiency gains and synergies

In 2024 SNS JU continued focusing in achieving maximum synergies and efficiencies namely in the area of Back Office Arrangements with other JUs. In particular:

- Accounting (excluding Treasury)
- Joint Public Procurements
- Human resources Support
- ICT services

In 2024, the situation as regards those BOAs and SNS JU were as follows:

Accounting

The JUs took over the accounting services that until 30 November 2022 were provided by DG BUDG and succeeded in implementing the BOA for Accounting Services in 2022, and immediately for the accounting closure 2022.

EU-Rail is the lead JU of this BOA and concluded the SLA with the other JUs on 16 December 2022. Accounting services will be provided by 3 Accounting Officers coming from the following JUs: CA JU, SESAR JU and EU-Rail JU.

Organisation:

- The Executive Director of the Lead JU is responsible for the organization, oversight and coordination of the accounting services to the other JUs on the basis of an annexe of the BOA SLA.
- The Head of Corporate Services or another officer with the necessary grade, skills and competencies of the Lead JU shall act as Accounting Coordinator of the BOA Accounting Officers.
- The Accounting Officer(s) of the JU Accounting Providers delivers the service to one or more JU Accounting Beneficiary and is responsible for the accounts she/he signs off, while counting on the support and coordination with the lead JU.

In order to ensure the provision of these services, it was agreed between the EC and the JUs to make use of the support of 3 additional Contractual Agents and of an external Accounting Services provider.

The BOA for Accounting services are fully operational and are delivering the intended services, including the preparation of the Annual Accounts for 10 Joint Undertakings. As of January 2024, the BOA team is composed of 3 Accounting Officers supported by 3 Accounting Assistants.

Joint public procurements

This BOA has been established with the objective of centralising administrative procurement capability and process to maximise open tenders for award of inter-JUs FWCs and middle value negotiated procedures.

The Joint Procurement Planning – Catalogue of Services (endorsed on 30 November 2023) was implemented throughout 2024, benefiting the participating Joint Undertakings (JUs), including SNS JU, that expressed interest in specific tender procedures.

During 2024 the following inter-institutional call for tenders were under preparation, launched or fully implemented by the JUs under the BOA Procurement legal framework:

INTER-INSTITUTIONAL TENDER PROCEDURES IN 2024					
N.	**Subject**	**Procedure**	**Status of the procedure at 31.12.2024**	**Leading JU (LCA(s))**	**Participating JUs (PCA(s))**
1	On-line data protection register services	Exceptional negotiated procedure without publication	FWC awarded and in force	EU-RAIL- Legal and administrative aspects (LCA I) EU-RAIL/EUROHPC- Technical Aspects (LCA II)	CAJU, EU-RAIL, CLEAN HYDROGEN JU, EuroHPC JU, CBE JU, IHI JU, Chips JU, SESAR 3 JU, GH EDCTP3 JU, SNSJU
2	Usufruct contract for the 8 JUs in the White Atrium	Exceptional negotiated procedure without publication	Usufruct Contract (foreseen 1/2/25) under signature	CLEAN HYDROGEN JU& Chips JU Legal, Administrative and Technical Aspects	CAJU, EU-RAIL, CLEAN HYDROGEN JU, CBE JU, IHI JU, Chips JU, GH EDCTP3 JU, SNSJU
3	Architect services	Negotiated Procedure	FWC awarded and in force	Chips JULegal andadministrative aspects Chips JU, CBE JU, EU-Rail, SNS JU Technical Aspects	Chips JU, CBEJU, EU-RAIL, SNSJU
4	Facility Management Contract	Exceptional negotiated procedure without publication	On-going	Chips JU Legal, Administrative and Technical Aspects	CAJU, EU-RAIL, CLEAN HYDROGEN JU, CBE JU, IHI JU, Chips JU, GH EDCTP3 JU, SNSJU
5	Assets and Furniture Insurance	Negotiated procedure for very low value	Contract signed (MoU signed among the 8 JUs in the White Atrium)	Chips JU Legal, Administrative and Technical Aspects	CAJU, EU-RAIL, CLEAN HYDROGEN JU, CBEJU, IHIJU, Chips JU, GHEDCTP3 JU, SNSJU
6	Legal and operational support to data protection activities LOT 1: Operational support to data protection activities LOT 2: Specialised legal services on data protection	Open Tender	5 FWCs in cascade awarded and in force (3 FWCs under Lot 1 and 2 FWCs under Lot 2)	SESAR 3 JU - Legal and administrative aspects (LCA I) SESAR 3 JU/CAJU/ EU-RAIL/Chips JU/ CLEAN HYDROGEN JU- Technical Aspects (LCA II)	CAJU, EU-RAIL, CLEAN HYDROGEN JU, EuroHPC JU, CBEJU, IHI JU, Chips JU, SESAR 3 JU, GHEDCTP3JU, SNSJU

INTER-INSTITUTIONAL TENDER PROCEDURES IN 2024					
7	CEI renumerated legal experts	CEI	Published	CAJU Legal, Administrative and Technical Aspects	CAJU, IHIJU, EU-RAIL, CBEJU, Chips JU, SESAR 3 JU, EuroHPC JU, GHEDCTP3JU, SNSJU
8	LOT 1: Strategy, editorial, media, press, and publications LOT 2: Digital Communication LOT 3: Events LOT 4: Web-services	Open Tender	Under preparation	CAJU- Legal and administrative aspects (LCA I) Technical Aspects (LCA II): LOT1 – SESAR 3 JU LOT 2- EU-RAIL LOT 3- EUROHPCJU & CBEJU LOT 4- CAJU	EU-RAIL, SESAR 3 JU, GHEDCTP3JU, IHIJU, EuroHPC JU, CBEJU, Chips JU, SNSJU
9	Provision of event organisation services	Open tender	Under evaluation	SESAR 3 JU Legal, Administrative and Technical Aspects	GHEDCTP3JU, SNSJU, Chips JU
10	Thematic Communication Services	Open tender	Under preparation CBEJU	Legal, Administrative and Technical Aspects	CBEJU, SNSJU, GHEDCTP3JU, Chips JU
11	First-aid training	Low value negotiated procedure	On-going	Clean Hydrogen JU Legal, Administrative and Technical Aspects	CAJU, EU-RAIL, CLEAN HYDROGEN JU, CBEJU, IHIJU, Chips JU, GHEDCTP3JU, SNSJU

Presented at the Annual Conference on European Public Procurement Law 2024, which gathered Heads of Procurement units and sectors from various EU bodies, the BOA Procurement model received overwhelmingly positive feedback. The appreciation and interest expressed by the audience confirmed the scale of the achievement and reassured that the time and effort invested in this initiative were worthwhile. It also highlighted the need for continued collaboration in public procurement and contract management.

By working together on joint procurement initiatives for common interests, the JUs have complemented each other, fostering a more economically efficient use of resources and increasing their negotiation power. The sharing of knowledge and best practices, along with legal and procurement support from entities with specific expertise, has resulted in significant time and cost savings. Furthermore, the interchangeable system among JUs performing the role of a Leading Contracting Authority (LCA) has optimized resource allocation.

The integration of efforts has led to smooth teamwork, allowing for greater results. Through inter-institutional calls for tenders, the JUs have strengthened their purchasing power, making procurement opportunities more attractive to the market. Larger economic operators are more likely to engage when higher volumes of services are involved, reducing the risk of procedure cancellations. Additionally, these collective tenders have helped eliminate the fragmentation of contracts, replacing multiple low-value agreements with solid four-year framework contracts, ensuring compliance with procurement and financial regulations.

While the BOA Procurement model has achieved significant success, challenges remain. There is a need for more strategic public procurement planning with a long-term perspective, taking into account the European Commission's resources and the potential of AI to improve JUs' work organization. Better synchronization between individual procurement needs and the BOA's bi-annual planning is necessary, along with efforts to reduce administrative burdens, such as the requirement to sign a memorandum of understanding for each new joint procurement procedure. Additionally, the increased workload for JUs coordinating procurement processes has impacted their ability to focus on other essential legal and administrative tasks, including grants management, litigation, audits, and governance.

Despite these challenges, the BOA Procurement model has proven to be an effective and valuable framework. Its continued development and refinement will ensure further efficiency, innovation, and cooperation in EU public procurement.

Human Resources Support

In 2024, under the BOA HR, the Joint Undertakings have continuously maximised their synergies and have implemented several actions in three HR main areas: selection and recruitment, HR legal framework and HR digitalisation. In particular, by holding bi-monthly meetings the JUs have continued to promote best practices, ensure consistent HR support services, and achieve efficiencies and economies of scale.

In line with the HB BOA action plan 2024, the JUs have:

- implemented a common online assessment solution for remote proctoring services to support the running of written tests as part of selection procedures. To this end, a SLA among JUs was signed in September 2024 to proceed with the purchase of the above-mentioned services;
- launched a series of workshops to align and harmonise the selection recruitment procedures practices among JUs;
- strengthened their cooperation by:
- organising an HR Officers Away Day to share best practice and shape collaboration;
- sharing reserve lists to shorten time to recruit;
- providing expertise and resources allowing staff members to be panel members in several selection procedures at other JUs;
- supporting new Joint Undertakings during their on-boarding/start-up phase, providing guidance, advice and templates centralising the organisation of training courses of general interest for all JUs (e.g., ethics and integrity, antifraud, respect and dignity at the workplace for JU staff members, cybersecurity training courses for JU staff);
- contributing to developing a common JU HR legal framework by sharing ED and GB decisions on diverse HR regulatory topics;
- launching a new call for interests for the JUs confidential counsellors, and supporting the communication campaign on the role of confidential counsellors in the JUs;

The JUs, as interinstitutional partners, have also attended meetings held by the European Commission on the HR transformation programme that intends to set up a new IT platform to replace SYSPER.

The JUs will further strengthen this collaboration in 2025.

ICT Services

The Clean Hydrogen JU and the IHI JU co-lead the BOA ICT, which continues the common approach to ICT services before 2024, referred to as a "pre-BOA" for ICT.

In 2024, in continuation of the practice over the previous years, the JUs held 4 ICT coordination meetings (called "IT gov meetings"), during which:

- The implementation of the common ICT annual work plan and budget for 2024 (AWP2024) was monitored.
- The common ICT annual work plan and budget for 2025 (AWP2025) was defined, with an adoption during the meeting of November 2024.

The actions of the AWP 2024 were implemented in accordance with the plan.

The AWP2024 contained the following 7 actions and related budget:

- Action 1. Back-office IT (BOA) implementation
- The service level agreement for the BOA ICT was approved in November (see below).
- Action 2. Common infrastructure migrations

- The migrations for the IaaS and Testa secured connection were finalized in March.
- Action 3. Upgrade of AV Equipment in Common Meeting Rooms
- The MoU with OIB for audio-visual services was signed in September and the choice of design for the meeting rooms to equip agreed in December.
- Action 4 Cybersecurity – data protection – Infosec regulation
- The common BCP has been revised and approved.
- Action 5. EULogin integration with M365
- This action was dropped with the lack of maturity/availability of the DIGIT solution.
- Action 6. SaaS O365 assets
- The SLA was signed in December amongst the JUs to launch a request for services for a revised M365 DPIA. The leadership of this project in 2025 is ensured by the DPO network supported by the ITOs.
- Action 7. reconversion White Atrium building
- A disposal exercise for IT equipment was organised in each JU with centralization and common pick-up
- New equipment was implemented on the 1st floor to accommodate SNS JU and Global Health EDCTP3 JU with optic fiber and wi-fi antennas
- UPS renewal project was launched in December with installation in Q1 2025

Some actions have a natural continuation or reinforced implementation in the next AWP

The AWP2025 includes the following actions:

- Action 1. BOA ICT implementation on Governance and Management of shared infrastructure (see below)
- Action 2. Next FWC for ICT Managed services
- Action 3. Upgrade Common Meeting rooms
- Action 4. Internet line provider
- Action 5. Security regulation(s) related to Service #5 - Security and compliance management on CERT-EU Services, Infosec regulation, Business Continuity Plan and Disaster Recovery Plan, and Cybersecurity Regulation
- Action 6. SaaS O365
- Action 7. Windows 11 migration
- Action 8. reconversion of White Atrium building

In parallel, the JUs drafted the Service Level Agreement and Description of Services, describing the services to be provided under the BOA ICT in accordance with the priorities set forth in the BOA ICT concept note adopted by the Governing Boards in early 2024, namely:

- Service area #1 Inter-JU IT Governance
- Service area #2 Management of shared ICT infrastructure and Service area #4 Workplace services provision
- Service area #5 Security and compliance management

The SLA and Descriptions of Services were signed by the EDs of 10 Joint Undertakings until the end of 2024, paving the way for BOA ICT implementation, fully in accordance with Article 13 of the SBA and continuing the shared practices of the past 14 years as from 1st January 2025.

3 Governance

Governance structure of SNS JU in 2024:

3.1 Major developments

Following the financial autonomy of SNS JU (on 24th October 2023), 2024 has been another pivotal year for SNS JU, building on the progress made in 2023. The year began with the full operational integration of the 35 projects selected under Call 1 and the successful initiation of the 17 projects selected under Call 2, with all corresponding grant agreements signed and operational by early 2024. The team has continued to expand, with key roles further solidified, including the strengthening of our management and technical teams.

In 2024, SNS JU focused on further consolidating its governance and operational frameworks, ensuring smooth coordination between funded projects while continuing to enhance collaboration within the SNS JU ecosystem. Our efforts were aimed at optimizing programme implementation, progressing with the evaluation and monitoring of ongoing projects, and aligning new initiatives with strategic goals.

A key highlight of 2024 was the preparation, including information day and linked events, for Call 3. These events provided an opportunity to engage with the research community and stakeholders, ensuring a strong and informed response to the call. The launch of Call 3 led to the selection of 16 additional projects, which are set to make a significant contribution to the SNS JU programme. The grant preparation process for these projects was finalized at the end of 2024, with grant agreements signed and pre-financing completed before the year's end, ensuring the swift start of these projects.

The year also saw significant progress in advancing our research and innovation efforts, with the 2024 work programme being fully implemented and a clear direction set for the future of the SNS JU. Alongside this, steps were taken to further align with the updated provisions of Horizon Europe, ensuring that all collaborations and procedures remain in line with the latest requirements.

Staffing continued to grow, with new recruitments strengthening the SNS JU team, and further roles to be filled as the programme expands. The focus on recruitment and internal processes has allowed SNS JU to better manage the increasing complexity and scale of its initiatives.

As we close out 2024, the continued momentum from last year positions SNS JU to make significant strides in the coming years, particularly in advancing the next phases of our projects, fostering deeper collaboration, and ensuring that the outcomes of our initiatives have a lasting impact on the future of smart networks and services.

3.2
Phasing-out plan monitoring

According to Articles 17(2)(a1) and 19(4)(v) of the SBA and Article 10(2)(c) Horizon Europe Regulation JU, the SNS JU Governing Board adopted a preliminary version of the phasing-out plan before the end of the year 2023 (GB-22-2023 of 22/12/2023).

In 2024, the SNS JU has started working on a revised version of the document, upon advice from the European Commission, inputs from its private member, the 6GIA, and in collaboration with the other Programme stakeholders.

The phasing out plan has been adopted by the GB in April 2025.

3.3
Governing Board

The SNS JU Governing Board is composed of five representatives from the 6G Smart Networks and Services Industry Association (6G-IA) and two representatives of the European Commission on behalf of the Union.

In 2024, the representatives for the 6GIA Association in 2024 are:

Colin Willcock
Nokia (Vice-Chair of the SNS Governing Board, renewed on 22/11/2024)

Damir Filipovic
AIOTI

David Kennedy
Eurescom GmbH

Afif Osseiran
Ericsson

Carles Anton-Haro
Centre Tecnològic de Telecomunicacions de Catalunya (CTTC)

The representatives for The European Commission, DG CNECT, are:

Pearse O' Donohue
Director, CNECT.E – Future Networks, DG CNECT[22]

Agustin Diaz-Pines
Deputy Head of Unit, Unit E1 "Future Connectivity Systems", DG CNECT[23]

22. To be succeeded by April 2025 by **Thibaut Kleiner**, new Director, CNECT.E - Future Networks, DG CNECT (respectively, Chair of the SNS Governing Board in 2024 and from April 2025)
23. To be succeeded in April 2025 by Miguel Gonzalez Sancho, Head of Unit, Unit E1 "Future Connectivity Systems," DG CNECT

The SNS JU Governing Board met in hybrid mode three times in 2024:

- **29/05/2024 (11th meeting)**: key topics such as updates on operational, financial, and administrative activities and the implementation of the SNS JU AWP were discussed. They also approved the 2024 Work Programme for the SNS strategic Working Group 5G4CAM, reviewed the Consolidated Annual Activity Report 2023, and discussed the Draft SNS JU Work Programme for 2025. Additionally, the GB received updates on Standardisation, the White Paper on Digital Infrastructure, and 6GIA activities.
- **15/07/2024 (12th meeting)**: The key topics discussed included updates on operational, financial, and administrative activities, as well as the draft EU SNS JU budget for 2025. The GB also reviewed the results of the Call 3 evaluation and approved the list of actions selected for funding from the HORIZON-JU-SNS-2024 Call (Cal l3) for proposals. Additionally, there was a discussion on the activation of the Policy Working Group and the status of the SNS JU Work Programme for 2025, including its timeline.
- **22/11/2024 (13th meeting)**: Key points discussed included the election of the Chair and Vice-Chair of the SNS JU GB and the adoption of the SNS JU Annual Work Programme (AWP) for 2025. The GB also approved the SNS JU Communication Strategy and Action Plan for 2025 and discussed the updated phasing-out plan for the SNS JU. Additionally, there was an update on the Policy Working Group activities and objectives, as well as the state of play of the SNS JU's operational, financial, and administrative activities. The GB extended the mandates of the Chairman and Vice-Chairman for one more year, or as long as they remain Board members.

Additionally, in accordance with Article 10 of the Rules of Procedure of the SNS JU Governing Board, six written procedures were initiated to obtain the GB's approval on several key topics listed below:

Decisions taken by the SNS JU Governing Board in 2024		
Number	**Date**	**Subject**
01/2024	*15/01/2024*	*Approving the Internal Audit Charter*
02/2024	*04/03/2024*	*On the setting-up of the Staff Committee*
03/2024	*04/03/2024*	*Endorsing the Common Anti-Fraud Strategy in the Research Family (RAFS)*
04/2024	*04/03/2024*	*Concerning the terms and conditions for internal investigations in relation to the prevention of fraud, corruption and any illegal activity detrimental to the Union's interests*
05/2024	*04/03/2024*	*On the accession of the Smart Networks and Services Joint Undertaking to the Interinstitutional Agreement of 25 May 1999 between the European Parliament, the Council and the Commission concerning internal investigations by the European Anti-Fraud Office*
06/2024	*04/03/2024*	*Laying down general implementing provisions on the conduct of administrative inquiries and disciplinary proceedings*
07/2024	*04/03/2024*	*On the approval of the Back Office Concept notes for synergies and efficiencies among Horizon Europe Joint Undertakings*
08/2024	*26/04/2024*	*On the endorsement of the 6GIA Collaboration Agreement*
09/2023	*29/05/2024*	*On the approval a posteriori of the In-Kind Contribution to Additional Activities Plan for 2022 (Amendment the Work Programme 2022)*
10/2024	*28/06/2024*	*Opinion on Final Annual Accounts for 2023*
11/2024	*28/06/2024*	*On the approval of the Consolidated Annual Activity Report for 2023*
12/2024	*15/07/2024*	*On the approval of the actions selected for funding from the HORIZON-JU-SNS-2024 Call for proposals*
13/2024	*11/09/2024*	*On the request for the Commission agreement for derogation from implementing rules to the staff regulations*
14/2024	*22 /11/2024*	*Adopting the SNS JU's Annual Work Programme and Budget for 2025*
15/2024	*22/11/2024*	*Approving the SNS JU's Communication Policy and Communication Plan 2025*
16/2024	*18/12/2024*	*Adopting the updated 5G Strategic Deployment Agenda 5G Connectivity and spectrum for rail*

3.4 Executive Director

Mrs. Erzsébet FITORI was appointed as the Executive Director by the SNS Governing Board on 25/05/2023 (GB decision 11-2023), and she began her tenure on 1 October 2023. Her mandate is set for a fixed period of four years, until September 2027, with the possibility of a single renewal for an additional three years, extending to September 2030.

As Executive Director, Mrs. FITORI oversees the day-to-day operations of the SNS JU and is involved in the recruitment processes. She reports to the Governing Board, presenting various decisions for approval, including the Work Programme, the draft annual budget, and the staff establishment plan. She is also responsible for signing agreements and representing the organization as a speaker at various conferences and events.

In her capacity as Executive Director, Mrs. FITORI also serves as the Authorising Officer of the SNS JU, effective from the date of the SNS JU Financial Autonomy on 24 October 2023. In this role, she authorized all expenditures from that date through the end of 2023. She undertook her duties as Authorising Officer by signing all administrative legal commitments, including 43 grant agreements (27 for Call 2 and 16 for Call 3), along with related payments scheduled for 2024. Additionally, she participated in the Governing Board meetings in 2024, where, among other items, the Consolidated Annual Activity Report for 2023, the selected actions for funding from the three calls, and the 2025 Annual Work Programme and Budget were approved. Mrs. FITORI also made several key decisions regarding the governance of the SNS JU and established communication with the European Court of Auditors and the external auditors for the annual accounts.

3.5 States Representatives Group

The States Representatives Group ("SRG") an advisory body established in 2021 is composed of representatives of each Member State and Associated Country to Horizon Europe. The SRG provides guidance on all strategic issues as well as all relevant activities of the partnership. In particular, it provides guidance on R&I priorities under Horizon Europe and for deployment activities under CEF2 Digital.

In 2024 the SRG held several **regular meetings** to fulfil its missions as foreseen under the Single Basic Act. In March 2024 the SRG conducted a high-level debate on standardisation and discussed the EU Commission White Paper "How to master Europe's digital infrastructure needs?". SRG Members and the European Commission reflected on how SRG could best contribute to the strategic debate on connectivity taking place at EU level. An extraordinary meeting was convened in hybrid format in May 2024 during which SRG adopted a revised version of its internal rules of procedure to ensure a better functioning of the SNS JU governance and endorsed the private sector contributions (In-Kind contributions to Additional Activities) for year 2022. A third meeting was held during the EUCNC|6G Summit 2024 in Antwerp, Belgium in June 2024. the SRG discussed cooperation and possible synergies to work on identified priorities such as 6G standardisation. The SRG meeting was followed by a half-day SRG interactive seminar on standardisation where SRG representatives shared information with external experts and industry standardisation participants and explored the path and feasibility towards synergy and joint activities to foster 5G/6G standardisation process at the EU and national levels. The SRG was convened again a fourth time in November 2024 and expressed a positive opinion on the SNS Annual Work Programme 2025, including the R&I 2025 Work Programme. Furthermore,

the SRG approved the application of Article 22(5) of the Horizon Europe regulation limiting the participation of non-EU entities to the SNS JU 2025 Work Programme (for stream B and stream C projects).

In 2024, the SRG started as well to engage at a more **strategic level** with the aim of aligning the Joint Undertakings' activities with the policies and actions taken at national and regional level. SRG adopted its first report on national 6G initiatives in the EU Member States (SNS ICE/SRG collaboration) in November 2024. This document reporting on progress with regards to national 6G Research and Innovation activities, strategies and funding is to be updated on an annual basis as required under the Single Basic Act. SRG also agreed to set up working groups to provide contributions and feed the policy discussions of the SNS JU Policy working groups - including the working group working on 3C networks and on standardisation - chaired by the European Commission and the industry association 6GIA.

3.6 Stakeholders Group

The Stakeholders Group intends to bring together public and private stakeholders in the field of the SNS JU. It is open to relevant stakeholders, including organised groups, active in the field of the SNS JU, international interest groups from Member States, associated countries or other countries.

Stakeholders have been regularly consulted and involved in the SNS JU's programmatic and strategic activities, effectively acting as a de facto Stakeholders Group over recent years.

A number of organisations have engaged with the SNS JU in this context including NetworldEurope, the Alliance for Internet of Things Innovation (AIOTI), the Networked European software and services initiative (NESSI), the Public Safety Communications Europe Forum (PSCE), the 5G Automotive Association (5GAA), the 5G Alliance for Connected Industries and Automation (5G-ACIA), the European Telecommunication Standards Institute (ETSI), the European Cybersecurity Organisation (ECSO), the Association for European Nano Electronics Activities (AENEAS) and Photonics 21.

In 2024, the stakeholders supported the SNS JU programmatic work in various ways. Many SNS JU Stakeholders contributed to the update of the NetworldEurope's Strategic Research and Innovation Agenda 2021-27 (SRIA) that will be released in 2025 and will be the basis for the updated SNS JU SRIA. Furthermore, stakeholders such as AIOTI, 5G-ACIA, ETSI, AENEAS, or Photonics 21 participated in the Impact Assessment and Facilitation Action (IAFA) events organised by the CSA project SNS OPS. Stakeholder representatives also participated in a series of thematic workshops to prepare the 2025 Work Programme and define R&I priorities for the next years. Several Stakeholders that are 6G-IA Members (e.g. 5GAA, ECSO, PSCE, 5G-ACIA etc) have provided input to the WP2025 consultations that took place in May and July/August 2024 and their input has been considered for the preparation of SNS JU R&I WP 2025.

SNS JU has also participated and contributed to key stakeholder events. For example, SNS JU had a keynote at European Cyber Security Organisation (ECSO) Days 2024, while 6Gsec Common Path and Cardinal Points "6Gsec CP²" event was organised by ECSO, SNS OPS project and Networld with the aim to ensure European Research roadmap convergence and strengthen collaboration & synergies between the cybersecurity and 6G communities. SNS JU also gave a keynote in the PSCE Winter Conference 2024, presenting the European SNS Research Program on 6G and examples of public safety use cases and relevant future orientations for this important vertical sector. Furthermore, in pursuing its critical objective to bridging the gap between European research, standards and industry, the SNS JU strengthened its partnership with ETSI. In 2024, SNS JU participated to the ETSI event on Software and Standards for Smart Networks and Services Conference & Hackfests and to the ETSI - Conference on "Non-Terrestrial Networks, a Native Component of 6G" while ETSI contributed to EUcNC workshops with its valuable expertise on standardisation.

Stakeholders have also supported SNS JU's strategic workstream throughout the year 2024. For instance, 5GAA has been actively participating in the discussion and the drafting of the 2024 5G Strategic Deployment Agenda 5G Connectivity and spectrum deliverables under the umbrella of the SNS JU GB Strategic Working Group on 5G for Connected and Automated Mobility (5G4CAM). AIOTI developed with 6GIA a White Paper on the role of 6G in Agriculture released in May 2024 that provided valuable insight into evolving sectoral requirements, sustainability concerns, and innovation gaps.

4 Financial Management and Internal Control

The SNS JU applies, mutatis mutandis, the components, principles and characteristics set forth in the European Commission's internal control framework. Internal control systems and procedures are applicable at all levels of the management and are designed to provide reasonable assurance of achieving the following objectives: 1) effectiveness, efficiency and economy of operations, 2) reliability of reporting, 3 safeguarding of assets and information, 4) prevention, detection, correction and follow-up of fraud and irregularities

4.1 Control results

2024 was the fourth year of implementation of the Horizon Europe Framework Programme. No representative error rate for Horizon Europe is available in 2024 as the ex-post audit exercise for the programme was launched in the second half of 2024, once a meaningful number of payments was available for audit.

4.1.1 Effectiveness of controls

To assure the effective and efficient implementation of expenditure, SNS JU has set out an internal control framework embedded across its organisational structure, which relies on a combination of Ex-ante and Ex-post controls.

In order to prevent errors and irregularities before the authorisation of operations, and to mitigate risks of non-achievement of objectives, each operation is subject, at least, to an ex-ante control. This type of control relates to the operational and financial aspects of the operation, on the basis of a multiannual control strategy which takes risk into account. The purpose of the ex-ante controls is to ascertain that:

- the expenditure is correct and complies with the applicable provisions;
- the principle of sound financial management set out in Article 13 of the SNS Financial Rules has been properly applied.

Ex-ante controls provide the Authorising Officer with the assurance that costs claimed are accurate and in compliance with the applicable legal and contractual provisions. A complementary level of assurance on the costs paid is provided by Ex-post audits carried out at the beneficiaries' premises, after the costs have been incurred and declared.

Ex-post audits can be carried out up to two years after the payment of the balance for the HE programme. In case of findings, they can also be implemented as part of the project management cycle.

Ex-ante controls on operational and administrative expenditure

In order to support the statement of assurance on the achievement of the internal control objectives, this section covers reporting on and assessing various kinds of expenditure, i.e. operational and administrative, with references to the budget coverage and the indicators set out.

The SNS JU's annual budget is implemented through the administrative expenditure (i.e. related to staff and day-to-day activities – Titles 1 and 2 of the budget) and the operational expenditure (i.e. related to the research programme and payments to the beneficiaries - Title 3 of the budget).

SNS JU has developed and continues to apply comprehensive procedures defining the controls to be performed by project officers and financial officers for every commitment, payment of financial claim, payment of invoice, and recovery order, taking into account risk-based and cost-effectiveness considerations.

For operational expenditure, the processing and recording of transactions in the IT accounting system (ABAC) are performed via the corporate HE IT tools (SyGMa/COMPASS), which ensures a high degree of automation as the controls are embedded in each workflow.

A pivotal element of this control system is the implementation of the horizontal guidance on HE Ex-ante controls for interim and final payments. This allows a consistent, simplified and trust-based approach to beneficiary controls with risk-based considerations.

Ex-post controls on operational expenditure

The results of the implemented controls are assessed through Ex-post audits conducted on transactions made from the SNS JU's operational budget.

Ex-post controls of operational expenditure follow the Horizon Europe Audit Strategy. This Strategy is risk-based and incorporates lessons learned from Horizon 2020. The Common Implementation Centre (CIC) developed these audit strategies in cooperation with its clients, including European Commission services, Executive Agencies, and Joint Undertakings.

The primary goal of the audit strategies is to provide Authorising Officers with the necessary assurance elements in a timely manner, enabling them to report on the budget expenditure under their responsibility. Ex-post controls on operational expenditure contribute to:

- Assessing the legality and regularity of expenditure on a multi-annual basis.
- Evaluating the effectiveness of related ex-ante controls.
- Establishing a basis for corrective and recovery mechanisms, if necessary.

The Common Audit Service (CAS) is a CIC service that serves all Horizon Europe stakeholders in the implementation of the audit strategy. Its mission is to deliver a corporate approach throughout the audit cycle, covering audit selection, planning, rule application, relations with beneficiaries, and management information on the audit process. SNS JU is integrated into this control chain and actively participates in defining the audit process as well as monitoring its implementation in continuous collaboration with CAS and its clients. The main objective of this cooperation is to align operations and exploit synergies in the common audit effort. The goal is to reduce audit costs and minimize the administrative burden on auditees, in line with the objectives of Ex-post controls outlined above.

The main legality and regularity indicators for payments made to beneficiaries are the representative and residual error rates detected through financial Ex-post audits.

- The representative error rate (RepER) is the detected error rate resulting from the representative audits. It provides a reasonable estimate of the level of error in the population relating to the accepted SNS contributions on completion of the audits but does not take into account the corrections and follow-up undertaken by SNS.
- The residual error rate (ResER) is the level of error remaining in the population after deducting corrections and recoveries made by SNS. This includes the extension of audit results to non-audited financial statements of the audited beneficiaries to correct systemic errors.

No SNS JU error rates are available yet for 2024, as the CAS Ex-post audit campaign for SNS JU was planned for mid-2024 and results are not available yet.

4.1.1.1 Legality and regularity of the financial transactions

The SNS Financial Rules were adopted by the Governing Board Decision 01/2021. These rules define the financial circuits, which govern financial transactions within SNS. They take into account SNS's organizational structure, the associated risks, and the nature of the financing operations. The rules are designed to standardize the mandatory steps in processing financial transactions and to clarify the roles of the different actors involved.

SNS JU operates in accordance with Article 20(4) of its financial rules, which states: "The Executive Director shall establish the organizational structure and internal control systems suitable for the performance of the Executive Director's duties, in line with the minimum standards or principles adopted by the Governing Board. These systems shall be based on the Internal Control Framework established by the Commission for its departments, considering the risks associated with the management environment and the nature of the financed actions. The establishment of such structures and systems shall be supported by a risk analysis, which takes into account both cost-effectiveness and performance considerations."

SNS JU uses internal control processes to manage risks related to the legality and regularity of the transactions for which it is responsible. This takes into account the multiannual nature of the programme and the specific characteristics of the payments involved.

4.1.1.2 Fraud prevention, detection, and correction

In March 2024, the Governing Board (GB) endorsed the updated Common Anti-Fraud Strategy in the Research Family (RAFS 2023 Update) as the official Anti-Fraud Strategy for SNS JU.

The alignment of this RAFS with the EU anti-fraud acquis has been fully achieved, with both the baseline and target set to ensure compliance by 31 December 2024. All SNS JU staff are required to complete anti-fraud or ethics training. In terms of organizational alignment, tasks and objectives have been confirmed to be fully in line with anti-fraud policies. The annual risk assessment process, which includes identifying and evaluating fraud risks and implementing measures to mitigate them, is also in place and progressing as planned.

Additionally, fraud prevention and detection procedures are formalized and fully operational, reinforcing a strong anti-fraud framework within SNS JU.

From a governance perspective, there is a strong commitment to ethical standards. All members of the Governing Board and the Scientific Review Group (SRG) have signed the declaration of absence of conflict of interest for the reporting year. No cases of misconduct or breaches of professional obligations have been reported in 2024, ensuring high standards of integrity within the organization.

SNS JU is committed to cooperating with OLAF, with a response time for providing requested information set at seven days, ensuring timely compliance with any inquiries.

Throughout the reporting year, no fraud cases involving SNS JU have been identified, and no investigations by OLAF have been reported to JU management.

While SNS JU recognizes that an effective anti-fraud strategy must be based on identifying potential risks and implementing appropriate mitigation measures, the organization's status as a new entity required time to develop a deeper understanding of its activities and associated risks. Since the Horizon Europe Joint Undertakings contributed to shaping the RAFS to address the specific risks and operational needs of JUs, SNS JU considered it appropriate to adopt this strategy upon its approval at the Commission level. Accordingly, SNS JU has implemented controls and procedures to combat fraud in alignment with the RAFS.

Looking ahead, SNS JU will develop its own dedicated Anti-Fraud Strategy in 2025, ensuring it aligns with the RAFS while incorporating OLAF's recommendations.

4.1.1.3 Assets and information, reliability of reporting

In 2024, the following controls were performed to monitor the safeguarding of assets and information and the reliability of reporting in the JU:

The accounting officer carried out the annual evaluation of the local financial management systems in SNS JU (accounting system validation). The report was finalised in November and the evaluation methodology was adapted taking into account the results of previous years' assessments. The evaluation reviewed the available information regarding the follow up of the 2023 evaluation, the analysis of a sample of the operations authorised during the 2023 and the 1st semester of 2024 financial years, and key performance indicators. The evaluation did not identify any internal control weakness which would have a material impact on the accuracy, completeness and timeliness of the information required to draft the annual accounts and produce reliable reporting.

The latest periodic validation of access rights granted in ABAC had been finalised in 2024 and resulted in any access right inconsistency identification. In 2024 the Ethics module of Sysper was implemented.

In addition, SNS JU supports its activities with a number of corporate tools ensuring adequate safeguard of information and reliability of reporting. Financial and accounting activities are carried out through ABAC, Projects are managed on COMPASS and SYGMA. Treasury of SNS is integrated into the Commission Treasury system. ARES is used for document management. SYSPER and RCAM/JSIS are in use for HR matters.

IT assets and security matters had been managed by the JU IT sector. The register of IT incident is kept by the IT assistant and reported no incidents in 2024. The JU IT inventory of physical assets was completed without reporting any inconsistency. In the event of disaster, the BCP/DRP is in place and ensure the full recovery of systems.

In the reporting year, no material issues and/or weakness in the internal control system were identified. Overall, The JU has reasonable assurance on the effectiveness of controls to the safeguard of assets and the reliability of reporting.

The safeguard of information and reliability of reporting was ensured by regular controls performed at every level of SNS JU. Controls are extensively supported by the use of IT tools such as: ABAC for financial and accounting activities, Compass and Sygma (operational budget), ARES for document management, Sysper and RCAM/JSIS for HR matters. Controls are in place and effectively functioning for all operational and horizontal activities, in compliance with regulations and procedures. There were no data breaches in 2024. IT assets safeguard has been put in place through required actions (e.g. equipment storage and keeping of inventory). Reliability of reporting was assured by the SNS JU Financial Team through regular monitoring, the accounting officer and the external auditors.

4.1.2
Efficiency of controls ("Time to")[24]

The efficiency of controls in SNS JU is measured through the analysis of indicators stated in the EU financial regulation: time-to-inform, time-to-sign, time-to-grant (Art. 197 of the Financial Regulation 2024/2509-FR) and time-to pay (Art. 116 FR).

From the analysis of the grant's procedures having closure date of calls in 2024, the following had been measured:

Key Performance Indicators
Grant Process Timeline

	Average duration (Days)	Target (Days)	Status
Time to Inform	**98**	**153**	
Time to Sign	**121**	**-**	
Time to Grant	**227**	**245** [24]	✔ **Within target**

In the 2024 SNS JU Call 3, 16 projects were selected, and 15 grant agreements were successfully signed. The average time-to-grant was 222 days, remaining within the legal deadline of 245 days.

Additionally, in 2024, one project from the SNS JU Call 2, selected from the reserve list adopted in July 2023, was signed in February 2024, therefore generating a higher Time-to-Grant for this specific project. In total, 16 projects were selected, and 15 grant agreements were signed. The average time-to-grant across these agreements was 227 days, staying below the 245-day deadline, which reflects a consistent commitment to timely grant processing and efficient project funding.

24. Regulation (EU, Euratom) 2024/2509 of the European Parliament and of the Council of 23 September 2024 on the financial rules applicable to the general budget of the Union (recast) ; OJ L, 2024/2509, 26.9.2024

4.1.3
Economy of controls

In 2024, the total cost of the ex-ante control of the financial transactions is calculated in terms of full-time equivalents (FTE) performing the ex-ante control roles at an estimated average salary cost (including social charges).

For 2024, the human resources allocated to ex-ante controls are estimated at 1,21 FTE, calculated as the estimated time allocated to each type of transaction at the estimated monthly salary of the actors. The ex-ante control is performed by four actors and cover the operational and financial initiation and verification. The actors are 14 staff members (out of 17) of the Operational Unit and of the Administration and Finance Unit. The estimated FTE allocated to operational transactions is higher given the higher time-consuming and the higher salary costs of the associated actors.

In terms of financial impact, the cost of the ex-ante control is estimated at 0.10% of the total payments made in 2024. The rate is proportionally higher on administrative because of the lower costs and the lower value of payments made.

It is important to underline that no operational final payments were made in 2024. The ex-ante control activities of operational nature primarily focused on the new grant agreements, the grant amendments and the interim payments, which are generally less time-consuming than the final payments. The final payments typically require more in-depth checks and specific additional checks which lead to a more significant time investment. For this reason, the cost remains moderate in 2024 and it will expectedly increase in 2025 when the first final payments are due.

Overview of Ex-Ante Control Costs – 2024			
	Administrative	**Operational**	**Total**
Payments made in 2024	2.525.595	125.612.518	128.138.113 €
Estimated costs of ex ante controls (staff)	35.414	93.398	128.813 €
Percentage on total payments	1,40%	0,07%	0,10%
Full time equivalent (FTE)	0,39	0,82	1,21

4.1.4
Conclusion on the cost-effectiveness of controls

The applied control strategy for the SNS JU activities is designed to ensure a robust balance between low error rates, timely payments, and reasonable control costs. While it is still early in the implementation of several aspects of the programme, the strategy has been designed to be adaptive and scalable, ensuring that it can evolve to meet the program's needs as it matures. However, certain factors, such as the incomplete estimation of ex post control costs, mean that a full evaluation of the cost-effectiveness of the control strategy is still ongoing.

Effectiveness of the Control Strategy

The primary focus of the control strategy is to minimize errors and ensure that payments are processed efficiently while keeping control costs manageable. The strategy employs a risk-based approach, focusing more intensive checks on higher-risk activities while allowing lower-risk areas to be handled with simpler procedures. This approach helps to reduce the overall error rates and minimizes unnecessary complexity in control processes.

However, given that some activities under the SNS JU are still in their implementation phase, especially with regard to the finalization of the Internal Control framework, the strategy is still evolving. The completion of this framework will be critical for refining and streamlining the control processes, enhancing both the effectiveness and cost-efficiency of the controls moving forward.

Ex Post Control Costs

A key point to note is that, due to the relatively new nature of the SNS JU activities, an accurate estimate of the costs associated with ex post controls is not yet feasible. These activities are still being implemented, and it is anticipated that a clearer picture of the costs involved in post-activity controls will emerge during the next reporting cycle, notably in the Annual Activity Report 2025. This will allow for a more complete evaluation and estimation of the costs of such controls, as the framework for post-activity evaluation becomes clearer.

As of now, while initial estimates suggest that ex post controls will be an important part of the overall control strategy, their actual cost implications remain undetermined. These costs will be better understood once the full range of activities has been carried out and the Internal Control framework has been fully implemented.

4.2 Audit observations and recommendations

4.2.1 Internal Audit

Article 28 of SNS JU Financial Rules designates the Internal Auditor of the European Commission as the Internal Auditor of the SNS JU. The Internal Audit Service carried out the SNS JU Risk Assessment exercise in March 2024 which led to the SNS JU Strategic Audit Plan for the period 2025-2027.

For the period above the IAS identified two audit topics and one reserve audit topic.

The identified audit topics are: 1) Limited review of the SNS JU's Internal Control Framework (ICF) and 2) Audit on grant management

The Reserve audit topic is: Human Resources management and ethics

The shortlist of audit topics aims to support the planning of the IAS audits during the next three years, i.e. 2025-2027.

4.2.2 Audit of the European Court of Auditors

According to Article 58 of its Financial Rules, SNS JU shall grant the Court of Auditors access to its sites and premises and to all the information, including information in electronic format, needed in order to conduct its audits.

In 2024, the ECA audited the SNS JU accounts for the year 2023. In the final audit report, the ECA provides an unqualified opinion on the SNS JU and concludes that the JU's accounts present fairly the financial position of the SNS JU, the results of its operations, its cash flows and the changes in net assets for 2023, and that the revenue and payments underlying the accounts for 2023 are legal and regular in all material respects. The ECA draw an emphasis of matter on the presentation of the accounts, namely in relation to the prefinancing payments executed by the European Commission before the SNS JU financial autonomy (23 October 2023) and the pre-financing payments executed by the SNS JU after the date of autonomy. The ECA opinion was not modified in respect to this matter.

Chapter 2 of the report presents an overview of the results for all JUs for the 2023 financial year. In that chapter, the ECA suggests 6 actions to be taken by some of the JUs.

In Chapter 3, which is specific to the SNS JU, the ECA makes observations/recommendations regarding and management and control systems, namely on Business Continuity Plan, Policy on management of sensitive functions and control principles related to risk assessment and control and monitoring activities. The recommendations above have been implemented in 2024/beginning 2025.

4.3 Assessment of the effectiveness of internal control (IC) systems

The overall conclusion of the management's assessment determined that the internal control system of SNS JU was effective overall with some improvements needed for the reporting year, with identified areas of improvement being actively addressed. The main area of improvement is the formalisation and systematisation of the risk-based control framework under Horizon Europe to ensure, in a structured and centralised manner, the legality and regularity of grant payment transactions. This framework has not yet been implemented by SNS JU, primarily due to the very limited staffing capacity within the organisation. Notably, one individual has been cumulatively performing the roles of legal officer and internal audit officer, which has constrained the JU's ability to dedicate sufficient resources to the establishment of the framework. This situation, and the substantial workload involved in setting up such a control system, has been acknowledged by the European Court of Auditors in its clearing letter. Addressing this issue will require the allocation of adequate resources to ensure timely and compliant implementation going forward.

4.3.1 Continuous monitoring

The assessment of the effectiveness of the Internal Control (IC) System for the year 2024 was conducted through a comprehensive desk review based on the internal control monitoring criteria established for the 17 principles of the SNS JU Internal Control Framework. This approach is aligned with the SNS JU Internal Control Framework and follows the implementation guidance and instructions provided by the European Commission.

The evaluation covered all five components of the IC (Control Environment, Risk Assessment, Control Activities, Information and Communication, and Monitoring Activities) and assessed the implementation and functioning of each of the 17 related principles. The review considered multiple sources of evidence, including results from ongoing and specific control activities (e.g. budget execution, fraud prevention, reporting reliability), audit findings (ECA, IAS), exceptions and non-compliance events, and staff-reported weaknesses. The assessment identified principles that were either fully or partially complied with, analysed the underlying reasons for any gaps, and proposed corrective actions with target deadlines. The overall conclusion of the management's assessment determined that the internal control system of SNS JU was effective overall with some improvements needed for the reporting year, with identified areas of improvement being actively addressed.

4.3.2
Risk assessment and management

Risk management in the SNS JU is aligned with the European Commission's instructions for the identification, assessment, and management of risks, as well as with Component 2 of the Internal Control Framework. The approach to risk assessment is bottom-up, involving active participation from both staff and management. The process begins with an internal workshop to raise awareness, clarify roles and responsibilities, and present the methodology, timeline, and objectives.

Risks identified and assessed by staff are consolidated into a central risk register and action plan. These documents are endorsed by the Executive Director and communicated across the JU. Responsibilities for implementing actions are clearly assigned, and regular reviews are conducted under the coordination of the Internal Control and Audit Officer, with progress reported to the Executive Director.

For the reporting year, SNS JU completed the 2024 risk assessment, which included an anti-fraud component. The risk assessment exercise for 2025 was launched and finalised in the last quarter of 2024. However, these activities experienced delays due to the limited staffing resources of the JU, a challenge that continues to impact the timeliness and depth of risk management efforts. Despite these constraints, key risks were identified and addressed, although a fully formalised mitigation action plan and structured follow-up mechanism are still under development.

Certain risks require continued close monitoring, especially those related to the post-autonomy phase, such as the planned IT autonomy from DG CONNECT (scheduled between Q2 2024 and Q2 2025) and the transition from ABAC to SUMMA (planned for January 2026). Additionally, risks linked to the structural under-staffing of SNS JU, due to its limited Staff Establishment Plan, remain a concern.

Governance bodies and management meet regularly to maintain oversight. If performance monitoring or control results indicate emerging risks or declining performance, targeted assessments are carried out to determine the root causes and implement corrective actions. Overall, risk management is operational within SNS JU; however, further improvements are necessary to formalise the process and fully integrate it into the performance management cycle.

4.3.3
Prevention of Conflict of Interest

The prevention of conflicts of interest in SNS JU is addressed through a multi-layered approach.

For SNS JU staff, rules on conflict of interest are established in Governing Board Decision 01/2022 and are consistently applied. These rules form the basis for managing potential conflicts in a transparent and systematic manner.

Specific conflict of interest procedures are also in place for members of the Governing Board and the States Representatives Group. Since their adoption in 2022, these measures have been effectively implemented. The Governing Board Secretariat is responsible for managing the declarations in accordance with the applicable rules, using standardised templates that are consistently applied.

During the reporting period, no conflicts of interest were identified among staff.

Overall, in the reporting year, SNS JU had reasonable assurance that the measures in place to prevent conflicts of interest were effective. No issues arose that would affect the assurance provided by the Authorising Officer in section 4.5.2.

4.4
Conclusion on the assurance

In conclusion, management has reasonable assurance that, overall, suitable controls are in place and working as intended, risks are being appropriately monitored and mitigated, and necessary systems and reinforcements are being implemented. Therefore, the Executive Director, in her capacity as Authorising Officer, has signed the declaration of assurance presented below.

4.5
Statement of Assurance

4.5.1
Assessment of the Annual Activity Report by the Governing Board

The Annual Activity Report for 2024 is expected to be assessed and adopted by the Governing Board in June 2025.

4.5.2
Declaration of assurance

I, the undersigned, Erzsébet Fitori,Executive Director of the Smart Networks and Services Joint Undertaking (SNS JU)

In my capacity as authorising officer

Declare that the information contained in this report gives a true and fair view.

State that I have reasonable assurance that the resources assigned to the activities described in this report have been used for their intended purpose and in accordance with the principles of sound financial management, and that the control procedures put in place give the necessary guarantees concerning the legality and regularity of the underlying transactions.

This reasonable assurance is based on my own judgement and on the information at my disposal, such as the results of the self-assessment, the observations of the Internal Audit Service and the lessons learnt from the reports of the Court of Auditors for the year prior to the year of this declaration.

Confirm that I am not aware of anything not reported here which could harm the interests of the Joint Undertaking

Brussels, on 01-07-2025

Erzsébet FITORI


6G SNS
CO-OP

5 Annexes

1 2024 SNS JU Organisational chart

2 Establishment plan and additional information on HR management

	YEAR 2023				YEAR 2024			
Function group and grade	**Authorised**		**Actually filled as of 31/12**		**Authorised**		**Actually filled as of 31/12**	
	Perm. posts	**Temp. posts**	**Perm. posts**	**Temp. posts**	**Perm. posts**	**Temp. posts**	**Perm. posts**	**Temp. posts**
AD 16								
AD 15								
AD 14		1		1		1		1
AD 13								
AD 12		1		1		1		1
AD 11								
AD 10								
AD 9								
AD 8		5		0		5		1
AD 7				5				4
AD 6								
AD 5								
TOTAL AD	**7**		**7**		**7**		**7**	
AST 11								
AST10								
AST 9								
AST 8								
AST 7								
AST 6								
AST 5								
AST 4								
AST 3								
AST 2								
AST 1								
TOTAL AST								
AST/SC 6								
AST/SC 5								
AST/SC 4								
AST/SC 3								
AST/SC 2								
AST/SC 1								
TOTAL AST/SC								
TOTAL AD+AST+ AST/SC								
GRAND TOTAL	**7**		**7**		**7**		**7**	

Contract Agents	Authorized	Actually filled as of 31/12/2024
Function Group IV	7	7
Function Group III	2	2
Function Group II	1	1
Function Group I		
TOTAL	**10**	**10**

Seconded National Experts	Authorized	Actually filled as of 31/12/2024
	0	0
TOTAL	**0**	**0**

3 Publications from projects

Project Acronym	N° of publications	N° of Peer reviewed
ADROIT6G	**33**	**33**
6G-SHINE	**28**	**28**
HEXA-X-II	**110**	**108**
SNS ICE	**7**	**3**
TrialsNet	**22**	**18**
PREDICT-6G	**34**	**15**
RIGOUROUS	**33**	**31**
SUPERIOT	**30**	**30**
VERGE	**42**	**40**
PRIVATEER	**15**	**7**
SEASON	**72**	**67**
FIDAL	**9**	**2**
6GTandem	**9**	**9**
TIMES	**15**	**15**
6G-SANDBOX	**36**	**33**
HORSE	**12**	**12**
CENTRIC	**39**	**30**
CONFIDENTIAL6G	**27**	**25**
IMAGINE-B5G	**9**	**9**
NANCY	**51**	**51**
DESIRE6G	**43**	**35**
6G-NTN	**12**	**10**

Project Acronym	N° of publications	N° of Peer reviewed
DETERMINISTIC6G	10	8
ETHER	33	33
5G-STARDUST	13	12
TARGET-X	2	2
6G-XR	10	10
FLEX-SCALE	26	10
6Green	13	13
TERA6G	16	9
6G-BRICKS	23	23
BeGREEN	26	14
TERRAMETA	97	81
ACROSS	15	3
6G-TWIN	7	7
SAFE-6G	12	4
ELASTIC	9	9
ROBUST-6G	25	21
6G4Society	1	1
6G-CLOUD	7	5
EXIGENCE	6	5
6G-DISAC	24	22
ECO-eNET	9	9
PROTEUS-6G	7	6
6G-REFERENCE	3	3
INSTINCT	22	5
6G-PATH	27	0
6G-EWOC	5	0
6G-XCEL	7	0
iTrust6G	7	0
6G-GOALS	36	0
SUNRISE-6G	11	0
6G-INTENSE	13	0
ORIGAMI	31	0
6G-SENSES	20	0
NATWORK	20	0
Opti-6G	3	0
Total	1284	926

4 Patents from projects

Acronym	CONFITENTIAL PATENTS	NON CONFIDENTIAL PATENTS
ADROIT6G	2	0
6G-SHINE	12	0
Hexa-X-II	24	0
PREDICT-6G	3	0
RIGOUROUS	11	0
6G-SANDBOX	1	0
CENTRIC	7	0
NANCY	3	0
DESIRE6G	5	0
5G-STARDUST	2	0
6G-XR	10	0
6Green	1	0
TERA6G	1	0
TERRAMETA	7	2
SUNRISE-6G	2	0
ORIGAMI	3	0
TOTAL	94	4

5 Scoreboard of Horizon 2020 legacy Key Performance Indicators (If relevant)

Non applicable.

6

Scoreboard of Horizon Europe common Key Impact Pathway Indicators (KIPs)[25]

Key Impact Pathway[26]	Short-term	Medium-term	Longer-term	Detail per action or globally for 2024
Towards scientific impact				
1 Creating high-quality new knowledge	Publications -Number of peer-reviewed scientific publications resulting from the Programme	Citations -Field-Weighted Citation Index of peer-reviewed Publications resulting from the Programme	World-class science -Number and share of peer-reviewed publications resulting from the projects funded by the Programme that are core contribution to scientific fields	926 peer-reviewed scientific publications
2 Strengthening human capital in R&I	Skills -Number of researchers involved in upskilling (training, mentoring/ coaching, mobility and access to R&I infrastructures) activities in projects funded by the Programme	Careers -Number and share of upskilled researchers involved in the Programme with increased individual impact in their R&I field	Working conditions -Number and share of upskilled researchers involved in the Programme with improved working conditions, including researchers' salaries	3781 researchers involved in projects funded by the Programme
3 Fostering diffusion of knowledge and open science	Shared knowledge Share of research outputs (open data/publication/ software etc.) resulting from the Programme shared through open knowledge infrastructures	Knowledge diffusion -Share of open access research outputs resulting from the Programme actively used/cited	New collaborations -Share of Programme beneficiaries which have developed new transdisciplinary/trans-sectoral collaborations with users of their open access research outputs resulting from the Programme	547 Open Access Publications, 37 Open Access datasets and 18 OA software.
Towards societal impact				
4 Addressing Union policy priorities and global challenges through R&I	Results -Number and share of results aimed at addressing identified Union policy priorities and global challenges (including SDGs) (multidimensional: for each identified priority) Including: Number and share of climate-relevant results aimed at delivering on the Union's commitment under the Paris Agreement	Solutions -Number and share of innovations and research outcomes addressing identified Union policy priorities and global challenges (including SDGs) (multidimensional: for each identified priority)Including: Number and share of climate-relevant innovations and research outcomes delivering on Union's commitment under the Paris Agreement	Benefits -Aggregated estimated effects from use/ exploitation of results funded by the Programme on tackling identified Union policy priorities and global challenges (including SDGs), including contribution to the policy and law-making cycle (such as norms and standards) (multidimensional: for each identified priority) Including: Aggregated estimated effects from use/exploitation of climate-relevant results funded by the Programme on delivering on the Union's commitment under the Paris Agreement including contribution to the policy and law-making cycle (such as norms and standards)	SDG 9 related to Industry, Innovation and Infrastructure; SD11 Sustainable Cities and Communities and SGD 8 Decent Work and Economic Growth.

25. (based on Annex V to Regulation 2021/695/EU)
26. NB: For some of those KIPs the data will not be available in the short or even medium term

Key Impact Pathway[26]	Short-term	Medium-term	Longer-term	Detail per action or globally for 2024
5-Delivering benefits and impact through R&I missions	R&I mission results -Results in specific R&I missions (multidimensional: for each identified mission)	R&I mission outcomes Outcomes in specific R&I missions (multidimensional: for each identified mission)	R&I mission targets met -Targets achieved in specific R&I missions (multidimensional: for each identified mission)	Not applicable for the JUs
6 Strengthening the uptake of R&I in society	Co-creation -Number and share of projects funded by the Programme where Union citizens and end-users contribute to the co-creation of R&I content	Engagement -Number and share of participating legal entities which have citizen and end-users engagement mechanisms in place after the end of projects funded by the Programme	Societal R&I uptake -Uptake and outreach of co-created scientific results and innovative solutions generated under the Programme	
Towards technological / economic impact				
7 Generating innovation-based growth	Innovative results -Number of innovative products, processes or methods resulting from the Programme (by type of innovation) & Intellectual Property Rights (IPR) applications	Innovations -Number of innovations resulting from the projects funded by the Programme (by type of innovation) including from awarded IPRs	Economic growth -Creation, growth & market shares of companies having developed innovations in the Programme	94 confidential patents
8 Creating more and better jobs	Supported employment -Number of full time equivalent (FTE) jobs created, and jobs maintained in participating legal entities for the project funded by the Programme (by type of job)	Sustained employment -Increase of FTE jobs in participating legal entities following the project funded by the Programme (by type of job)	Total employment -Number of direct & indirect jobs created or maintained due to diffusion of results from the Programme (by type of job)	836,06 FTE jobs
9 Leveraging investments in R&I	Co-investment -Amount of public & private investment mobilised with the initial investment from the Programme	Scaling-up -Amount of public & private investment mobilised to exploit or scale-up results from the Programme (including foreign direct investments)	Contribution to '3 % target' - Union progress towards 3 % GDP target due to the Programme	

KIP1: Publications and peer reviewed publications per SNS projects (Call 1 and 2)

Project Acronym	N° of publications	N° of Peer reviewed
ADROIT6G	33	33
6G-SHINE	28	28
HEXA-X-II	110	108
SNS ICE	7	3
TrialsNet	22	18
PREDICT-6G	34	15
RIGOUROUS	33	31
SUPERIOT	30	30
VERGE	42	40
PRIVATEER	15	7
SEASON	72	67
FIDAL	9	2
6GTandem	9	9
TIMES	15	15
6G-SANDBOX	36	33
HORSE	12	12
CENTRIC	39	30
CONFIDENTIAL6G	27	25
IMAGINE-B5G	9	9
NANCY	51	51
DESIRE6G	43	35
6G-NTN	12	10
DETERMINISTIC6G	10	8
ETHER	33	33
5G-STARDUST	13	12
TARGET-X	2	2
6G-XR	10	10
FLEX-SCALE	26	10
6Green	13	13
TERA6G	16	9
6G-BRICKS	23	23
BeGREEN	26	14
TERRAMETA	97	81
ACROSS	15	3

Project Acronym	N° of publications	N° of Peer reviewed
6G-TWIN	7	7
SAFE-6G	12	4
ELASTIC	9	9
ROBUST-6G	25	21
6G4Society	1	1
6G-CLOUD	7	5
EXIGENCE	6	5
6G-DISAC	24	22
ECO-eNET	9	9
PROTEUS-6G	7	6
6G-REFERENCE	3	3
INSTINCT	22	5
6G-PATH	27	0
6G-EWOC	5	0
6G-XCEL	7	0
iTrust6G	7	0
6G-GOALS	36	0
SUNRISE-6G	11	0
6G-INTENSE	13	0
ORIGAMI	31	0
6G-SENSES	20	0
NATWORK	20	0
Opti-6G	3	0
Total	1284	926

KIP2: Number of researchers involved in the SNS JU projects (Call 1 and 2)

Project Acronym	Male	Female	Non Binary	Total
ADROIT6G	36	17	0	53
6G-SHINE	71	6	0	77
Hexa-X-II	268	54	0	322
SNS OPS	29	14	0	43
SNS ICE	14	3	0	17
TrialsNet	90	35	0	125
PREDICT-6G	66	14	0	80
RIGOUROUS	31	7	0	38
SUPERIOT	51	13	0	64
VERGE	53	11	0	64
PRIVATEER	45	16	0	61
SEASON	54	5	0	59
FIDAL	73	19	0	92
6GTandem	27	11	0	38
TIMES	47	7	0	54
6G-SANDBOX	71	10	0	81
HORSE	38	12	0	50
CENTRIC	35	6	0	41
CONFIDENTIAL6G	44	8	0	52
IMAGINE-B5G	72	12	0	84
NANCY	91	27	0	118
DESIRE6G	63	8	0	71
6G-NTN	47	3	0	50
DETERMINISTIC6G	41	11	0	52
ETHER	61	9	0	70
5G-STARDUST	25	6	0	31
TARGET-X	45	13	0	58
6G-XR	79	5	1	85
FLEX-SCALE	54	6	0	60
6Green	52	17	0	69
TERA6G	43	4	0	47
6G-BRICKS	68	23	0	91
BeGREEN	47	9	0	56
TERRAMETA	72	8	0	80

Project Acronym	Male	Female	Non Binary	Total
ACROSS	54	16	0	70
6G-TWIN	29	7	0	36
SAFE-6G	39	11	0	50
ENVELOPE	52	16	0	68
ELASTIC	35	5	0	40
ROBUST-6G	44	12	0	56
6G4Society	9	13	0	22
6G-CLOUD	30	6	0	36
TeraGreen	24	8	0	32
EXIGENCE	28	8	0	36
6G-DISAC	23	4	0	27
ECO-eNET	32	13	0	45
PROTEUS-6G	51	6	0	57
6G-REFERENCE	27	3	0	30
INSTINCT	32	5	0	37
FirstTo6G	27	2	0	29
6G-PATH	70	32	0	102
6G-MUSICAL	29	11	0	40
6G-EWOC	39	13	1	53
6G-XCEL	42	8	0	50
iTrust6G	31	5	0	36
6G-GOALS	22	3	0	25
SUNRISE-6G	91	24	0	115
6G-INTENSE	30	17	0	47
ORIGAMI	32	3	0	35
6G-SENSES	32	8	0	40
NATWORK	53	17	0	70
iSEE-6G	36	12	0	48
Opti-6G	15	1	0	16
Total	3061	718	2	3781

7

Horizon Europe Partnership common Key Performance Indicators[27]

Nb	HE Common Key Performance Indicators	Unit of measurement	Baseline	2024 Results
1	**Additionality**	Progress towards (financial and in-kind) **contributions from partners other than the Union** – i.e. committed vs. actual	EUR 116,182,773.29	
2	**Additionality/ Synergies**	**Additional investments triggered by the EU contribution**, including qualitative impacts related to additional activities	EUR 28.109.604.	
3	**Directionality**	Overall (public and private, in-kind and cash) **investments mobilized** towards EU priorities	N/A	See figures in Chapter 2.2.
4	**International visibility and positioning**	**International actors** involved		
5	**Transparency and openness**	**% & type of stakeholders and countries** invited/ engaged		48,9% Private for-profit entities (excluding Higher or Secondary Education Establishments) 24,4% Higher or Secondary Education Establishments (public and private) 23,6% Research Organisations (public and private) 0,1% Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments) 3,0% Other
6	**Transparency and openness**	**No and types of newcomer members** in partnerships and their **countries of origin** (geographical coverage)		See Section 1.7.3 Indicator #6
7	**Transparency and openness**	No and types of newcomer organisations in supported projects		See Section 1.7.3 Indicator #7
8	**Coherence and synergies**	Number and type of coordinated and **joint activities with other European Partnerships**	4	5

27. (based on an interim report published on 21 June 2021 (Commission Experts' report, Section 5 and Appendix 1 https://op.europa.eu/en/publication-detail/-/publication/6b63295f-d305-11eb-ac72-01aa75ed71a1/language-en/format-PDF/source-215872593)

Nb	HE Common Key Performance Indicators	Unit of measurement	Baseline	2024 Results
9	**Coherence and synergies**	Number and type of coordinated and **joint** activities with oth**er R&I Initiatives at EU / national/regional/ sectorial level**	N/A	see section 1.7.3
10	**Coherence and synergies**	Complementary and cumulative **funding from other Union funds** (Horizon Europe, ERDF, RRF, Other cohesion policy funds, CEF, DEP, LIFE, other) and **national funding**	N/A	see section 1.7.3
11	**International visibility and positioning**	**Visibility of the partnership** in national, European, international policy/industry cycles	N/A	See Section 1.7.3 Indicator #4

8 Scoreboard of Key Performance Indicators specific to the SNS JU

Nb	Resources (input), processes and activities KPIs	Unit of measurement	2025 Target	Achievement 2024
R.1	SME innovation & participation	% of SMEs participation	20.0%	33,25 % of SMEs and 24 % of EU funding received
R.2	Rapid diffusion	~# of end-user workshops & webinars [cumulative]	60	194
R.3	High risk research funding	% of total funding	50.0%	65.5%
R.4	Standardization contributions	Contributions to SDOs [cumulative]	350	1135
R.5	Share on family patents	% of patent families	15.0%	15%-17%
		Patent grant rate	60.0%	13.55%
R.6	Scientific excellence	# Publications [cumulative]	400	1284
R.7	Reach an appropriate balance between research, innovation, and deployment	% RIA	78.0%	77.0%
		% IA	20.0%	21.5%
R.8	Accelerate the development of energy efficient networks	# of projects investigating to a significant extent energy efficiency topics	>=3	17
R.9	Ensure research on secure future digital services	# of projects	>=4	20
R.10	Collaboration and synergies with other Partnerships	# of collaborations	5	3

9 IKAA REPORT FOR YEAR 2024

DESCRIPTION							Annual reporting				Cumulative reporting		
Title	Description	Category	Scope/Type	AA linked to project	Project acronym	AA linked to programme	Estimated value for the year	Incurred value for the year	Certified value for the year	Estimated AA total value	Cumulative AA value incurred	Cumulative AA value certified	Cumulative AA value not yet certified
1. Support to additional R&I	Activities related to the preparation of, and participation in, research and innovation projects funded by private or public bodies other than the Union. Spin off research and development activities (all research activities aligned with the goals of the SNS partnership, namely research into the evolution of 5G systems and research into 6G systems which is not funded by the SNS partnership).	1. Support to additional R&I	a. High Risk Research Funding b. Technological consensus building c. Advanced 6G Solutions for verticals d. Uptake of digital solutions within verticals e. Energy Efficient Telecommunication Networks	N/A	N/A	Yes Stream B, C, D projects	54,000,000.00	87,817,581.28	87,817,581.28	700,000,000	223,359,993.02	223,359,993.02	0.00
2. Scale up of technologies	Investment in start-ups and new products in the advanced networks and services domains.	2. Scale up of technologies	a. SME Innovation and participation b. A competitive data economy c. Foster emergence of new actors ion the 6G supply chain d. Uptake of digital solutions within verticals	N/A	N/A	Yes Stream B, C, D projects	500,000.00	20,681,424.37	20,681,424.37	50,000,000	23,982,370.68	23,982,370.68	0.00
3. Demonstrators	Trials, demos, pilots and Proof of Concepts (PoCs), go to market, early deployment of technologies; (not funded by SNS projects like customer trials).	3. Demonstrators	a. Advanced 6G solutions for verticals b. Uptake of digital solutions within verticals	N/A	N/A	Yes Stream B, C, D projects	1,000,000.00	0.00	0.00	2,000,000	1,270,194.18	1,270,194.18	0.00

DESCRIPTION							Annual reporting				Cumulative reporting		
Title	Description	Category	Scope/Type	AA linked to project	Project acronym	AA linked to programme	Estimated value for the year	Incurred value for the year	Certified value for the year	Estimated AA total value	Cumulative AA value incurred	Cumulative AA value certified	Cumulative AA value not yet certified
4. Creating new business opportunities	Activities related to patent Filing not funded under a grant by the Union (the costs associated with all Patent filing activities aligned with the goals of the SNS partnership, namely IPR in the area of 5G and 6G. This includes both the costs associated with IPR preparation as well as submission costs). Contributions to standardization (all standardization activities aligned with the goals of the SNS partnership, namely standardization of 5G and 6G in SDOs like 3GPP, O-RAN Alliance, ITU etc. which is not funded by the SNS partnership. This includes both the costs associated with participation in standardization as well as any necessary technical preparatory work such as research or simulation).	4. Creating new business opportunities	a. Share on Family patents	N/A	N/A	Yes Stream B, C, D projects	1,000,000.00	553,647.05	553,647.05	6,000,000	2,110,439.89	2,110,439.89	0.00
5. Training & skills development	R&D training programs (e.g., PhD programs) not being funded by the EC in the advanced networks and services domain.	5. Training & skills development	a. Scientific excellence	N/A	N/A	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6. Contribution to the development of new standards, regulations and policies	Contributions to standardization (all standardization activities aligned with the goals of the SNS partnership, namely standardization of 5G and 6G in SDOs like 3GPP, O-RAN Alliance, ITU etc. which is not funded by the SNS partnership. This includes both the costs associated with participation in standardization as well as any necessary technical preparatory work such as research or simulation).	6. Contribution to the development of new standards, regulations and policies	a. Standardization contributions	N/A	N/A	Yes Stream B, C, D projects	22,000,000.00	24,691,374.32	24,691,374.32	100,000,000	82,203,627.36	82,203,627.36	0.00

DESCRIPTION							Annual reporting				Cumulative reporting		
Title	Description	Category	Scope/Type	AA linked to project	Project acronym	AA linked to programme	Estimated value for the year	Incurred value for the year	Certified value for the year	Estimated AA total value	Cumulative AA value incurred	Cumulative AA value certified	Cumulative AA value not yet certified
7. Supporting ecosystem development	Activities to develop the ecosystem including building cooperation with verticals; (e.g., creation of specific interest groups, International cooperation not funded under a grant by the Union).	7. Supporting ecosystem development	a. SME Innovation and participation b. A competitive data economy c. Foster emergence of new actors ion the 6G supply chain d. Uptake of digital solutions within verticals	N/A	N/A	Yes Stream B, C, D projects	500,000.00	1,647,930.74	1,647,930.74	900,000	2,469,333.55	2,469,333.55	0.00
8. Communication, dissemination, awareness raising, citizen engagement	Dissemination activities of results globally to achieve consensus on supported technologies as preparation of future standards; (publications, workshops, conferences). SNS related education and events to promote future ICT technologies.	8. Communication, dissemination, awareness raising, citizen engagement	a. Rapid diffusion b. Reach Programme level consensus on 6G KPIs	N/A	N/A	Yes Stream B, C, D projects	550,000.00	0.00	0.00	500,000	402,030.71	402,030.71	0.00
9. Others	Contributions to activities of the 6G Smart Networks and Services Industry Association (6G-IA) and any other group or association of stakeholders in the area of the Smart Networks and Services Joint Undertaking, not funded under a grant by the Union; (e.g., working groups, white papers).	9. Others	a. Development of energy efficient telecommunication networks b. Collaboration and synergies with other Partnerships c. Ensure research on secure future digital services	N/A	N/A	Yes Stream B, C, D projects	1,000,000.00	0.00	0.00	2,000,000	1,504,681.11	1,504,681.11	0.00
							€80,550,000.00	€135,391,957.76	€135,391,957.76	€861,400,000.00	€337,302,670.50	€337,302,670.50	€ 0.00

TOTAL IKAA 2024: BREAKDOWN PER COUNTRY	
Country	Value (€)
Belgium	135,391,957.76

TOTAL IKAA 2021-2024 (Evolution - Value in €)									
PLANNED IKAA			REPORTED IKAA						
2022	2023	2024	2022		2023		2024		
			Reported Certified IKAA	Reported IKAA with pending certification	Reported Certified IKAA	Reported IKAA with pending certification	Reported Certified IKAA	Reported IKAA with pending certification	
€87,550,000	€60,000,000	€80,550,000	€85,727,939.45	€0	€116,182,773.29	€0	€135,391,957.76	€0	
			€85,727,939.45		€116,182,773.29		€135,391,957.76		
TOTAL PLANNED IKAA			TOTAL REPORTED IKAA						
€228,100,000.00			Reported Certified IKAA		Reported IKAA with pending certification				
			€337,302,670.50		€0				
			€337,302,670.50						

10 Annual accounts

10.1 Balance Sheet

		EUR
	31.12.2024	**31.12.2023**
NON-CURRENT ASSETS		
Property, plant and equipment	*21.041*	*24.128*
Long-term pre-financing	*99.775.032*	*121.347.449*
	99.796.072	**121.371.576**
CURRENT ASSETS		
Short-term pre-financing	*135.770.001*	*117.449.493*
Exchange receivables and non-exchange recoverables	*19.785.564*	*21.471.872*
	155.555.565	**138.921.365**
TOTAL ASSETS	**255.351.637**	**260.292.942**
CURRENT LIABILITIES		
Payables and other liabilities	*43.768.203*	*31.545.395*
Accrued charges and deferred income	*15.881.070*	*25.055.915*
	59.649.273	***56.601.310***
TOTAL LIABILITIES	**59.649.273**	**56.601.310**
NET ASSETS		
Contribution from Members	*418.091.260*	*289.691.245*
Accumulated deficit	*(85.999.613)*	*-*
Economic result of the year	*(136.389.283)*	*(85.999.613)*
NET ASSETS	**195.702.364**	**203.691.632**
LIABILITIES AND NET ASSETS	**255.351.637**	**260.292.941**

10.2 Statement of financial performance

		EUR
	2024	**2023**
REVENUE		
Revenue from non-exchange transactions		
Recovery of expenses	-	-
Other	-	-
Revenue from exchange transactions		
Other	-	-
Total revenue	**-**	**-**
EXPENSES		
Operating costs	*(133.810.737)*	*(85.492.000)*
Staff costs	*(1.887.093)*	*(305.687)*
Other expenses	*(691.452)*	*(201.926)*
Total expenses	**(136.389.283)**	**(85.999.613)**
ECONOMIC RESULT OF THE YEAR	**(136.389.283)**	**(85.999.613)**

10.3 Cash flow statement

		EUR
	2024	**2023**
Economic result of the year	*(136.389.283)*	*(85.999.613)*
Operating activities	**136.393.357**	**86.024.551**
Depreciation and amortization	*7.161*	*810*
(Increase)/decrease in pre-financing	*3.251.910*	*(238.796.942)*
(Increase)/decrease in exchange receivables and non-exchange recoverables	*1.686.308*	*(21.471.872)*
Increase/(decrease) in payables	*12.222.808*	*31.545.395*
Increase/(decrease) in accrued charges & deferred income	*(9.174.844)*	*25.055.915*
Increase/(decrease) in cash contributions	*128.400.015*	*289.691.245*
Increase/(decrease) in in-kind contributions	-	-
Investing activities	**(4.074)**	**(24.938)**
(Increase)/decrease in intangible assets and property, plant and equipment	*(4.074)*	*(24.938)*
NET CASHFLOW	**-**	**-**
Net increase/(decrease) in cash and cash equivalents	-	-
Cash and cash equivalents at the beginning of the year	-	-
Cash and cash equivalents at year-end	-	-

10.4
Statement of changes in net assets

				EUR
	Contribution from Members	Accumulated Surplus/(Deficit)	Economic result of the year	Net Assets
BALANCE AS AT 31.12. 2022	**289.691.245**	**-**	**(85.999.613)**	**203.691.632**
Allocation 2022 economic result	-	-	-	-
Cash contribution	*289.691.245*	-	-	*289.691.245*
Contribution in-kind	-	-	-	-
Economic result of the year	-	-	*(85.999.613)*	*(85.999.613)*
BALANCE AS AT 31.12.2023	**289.691.245**	**-**	**(85.999.613)**	**203.691.632**
Allocation 2023 economic result	-	*(85.999.613)*	*85.999.613*	-
Cash contribution	*128.400.015*	-	-	*128.400.015*
Contribution in-kind	-	-	-	-
Economic result of 2023	-	-	*(136.389.283)*	*(136.389.283)*
BALANCE AS AT 31.12.2024	**418.091.260**	**(85.999.613)**	**(136.389.283)**	**195.702.364**

11
Materiality criteria

The 'materiality' concept provides the Authorising Officer with a basis for assessing the importance of the weaknesses/risks identified and thus whether those weaknesses should be subject to a formal reservation to his declaration.

When deciding whether something is material, both qualitative and quantitative terms have been considered. In qualitative terms, when assessing the significance of any weakness, the following factors have been taken into account:

- The nature and scope of the weakness
- The duration of the weakness
- The existence of compensatory measures (mitigating controls which reduce the impact of the weakness)
- The existence of effective corrective actions to correct the weaknesses (action plans and financial corrections) which have had a measurable impact.

In quantitative terms, in order to make a judgement on the significance of a weakness, the potential maximum (financial) impact is quantified.

Whereas the SNS JU control strategy is of a multiannual nature (i.e. the effectiveness of the JU's control strategy can only be assessed at the end of the programme, when the strategy has been fully implemented and errors detected have been corrected), the ED is required to sign a declaration of assurance for each financial year. In order to determine whether to qualify his declaration of assurance with a reservation, the effectiveness

of the JU's control system must be assessed, not only for the year of reference, but more importantly, with a multiannual perspective.

The control objective for SNS JU is set out in the Commission proposal for the Council Regulation on the Smart Networks and Services Joint Undertaking. The objective is to ensure that the 'residual error rate' - i.e. the level of errors which remain undetected and uncorrected - on an annual basis, can range between two and five per cent, with the ultimate aim of achieving a residual level of error as close as possible to two per cent at the closure of the multiannual programme. Progress towards this objective is to be (re)assessed annually, in view of the results of the implementation of the ex-post audit strategy. As long as the residual error rate is not (yet) close to two per cent at the end of a reporting year within the programme life cycle, the Authorising Officer may also take into account other management information at his disposal to identify the overall impact of the situation and determine whether or not it leads to a reservation.

If an adequate calculation of the residual error rate is not possible, for reasons not involving control deficiencies, the consequences are to be assessed quantitatively by estimating the likely exposure for the reporting year. The relative impact on the declaration of assurance would then be considered by analysing the available information on qualitative grounds and considering evidence from other sources and areas (e.g. information available on error rates in more experienced organisations with similar risk profiles)

12 Results of technical review

N/A

13
SNS JU Programme Project Portfolio

14 List of acronyms

6G IA	6G Industrial Association
AAR	Annual Activity Report
AWP	Annual Work Plan
BOA	Back Office Arrangement (reference to Article 13 of the Council Regulation (EU) 2021/2085)
CA	Commitment Appropriations
CAS	Common Audit Service
CSA	Coordination and Support Action
CIC	Common Implementation Centre
EC	European Commission
ECA	European Court of Auditors
EDPS	European Data Protection Supervisor
FWC	Framework Contract
GB	Governing Board
HE	Horizon Europe
HR	Human Resources
IA	Innovation Action
IAS	Internal Audit Service
ICF	Internal Control Framework
IKAA	In Kind Additional Activities
IKOP	In Kind Operational Activities
JU	Joint Undertaking
KIP	Key Impact pathway Indicator
KPI	Key Performance Indicator
KVI	Key Value Indicator
NCPs	National Contact Points
MEP	Member of the European Parliament
PA	Payment Appropriation
PPP	Public-Private Partnership
RIA	Research and Innovation Action
R&I	Research and Innovation Programme
SBA	Single Basic Act, referring to the Council Regulation (EU) 2021/2085 of 19 November 2021 establishing the Joint Undertakings under Horizon Europe
SC	Scientific Committee
SRIA	Strategic Innovation and Research Agenda
SLA	Service Level Agreement
SNS JU	Smart Networks and Services Joint Undertaking
SO	Strategic Orientation
SRIA	Strategic Research and Innovation Agenda
SRG	States Representatives Group
SMEs	Small and medium-sized enterprises
TA	Temporary Agent
TRL	Technology Readiness Level
TTG	Time To Grant
TTI	Time To Inform
TTP	Time To Pay