



6G Standardization landscape & timelines

SNS ICE Final Event

Monday 28 April 2025

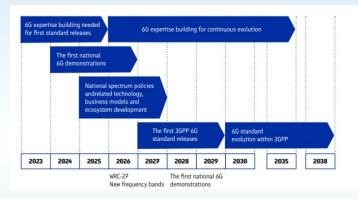
José Luis Almodóvar Chico

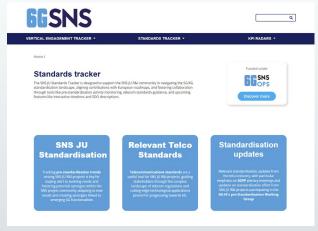




6G Standardization landscape & timelines

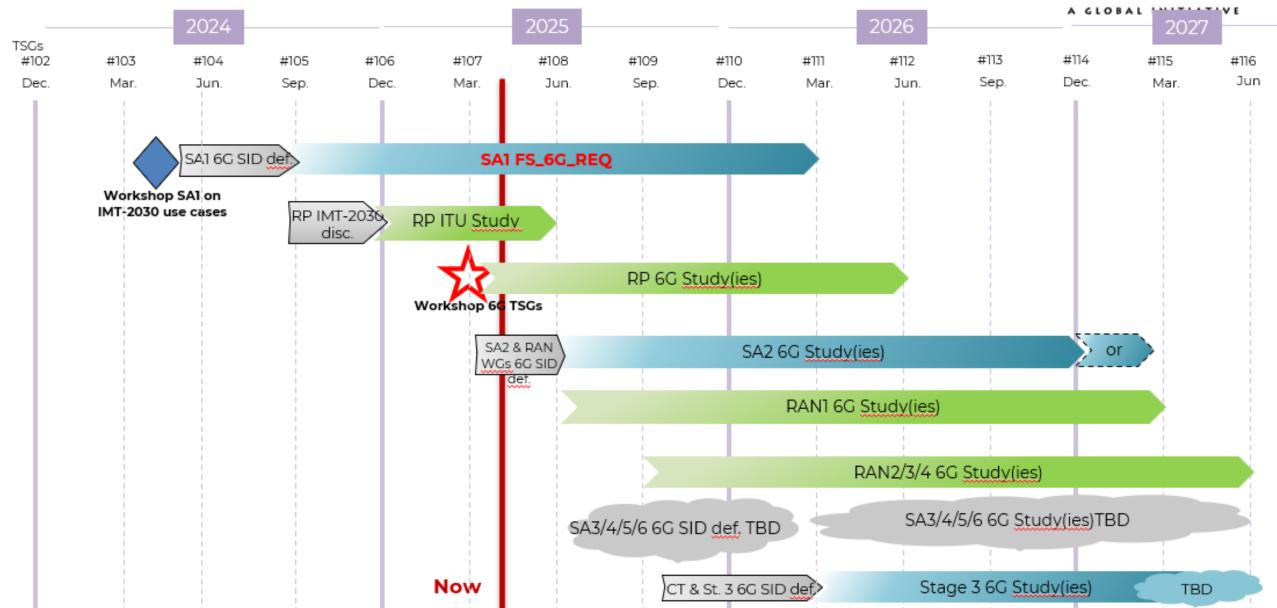
- 6G standardization has already started (i.e., 3GPP).
- SNS-ICE supported the standardization potential/impact of the SNS projects with the following actions:
 - 6GSNS Use Cases Presentation to the 3GPP Stage-1 workshop.
 - Analysis and landscape of ITU and WRC 2023 (D1.1 section 2.1 and 2.2)
 - Analysis of Standardization planning and trends (D1.1 section 2.4)
 - Update on global standardization activities (D1.2 section 2.1.3)
 - Support of the 6G-IA pre-standardization WG for the past 2.5 years (active participation – vice-chairmanship held by SNS ICE member)
 - Assistance with the population and maintenance of the Standards
 Tracker (https://sns-trackers.sns-ju.eu/standards-tracker).
 Developed by SNS OPS.SNS ICE assisted in the population with
 SNS JU data. (see also section 4.3 from D1.3)
 - SNS JU Standardization Webinar







3GPP 6G Timeline (Release 20)





Stage-1 Workshop on IMT2030 Use Cases



 For the first time, 3GPP organized a Stage-1 workshop on 6G use cases, inviting external organizations to 3GPP.

https://www.3gpp.org/technologies/stage1-imt2030-uc-ws

- Objective: Bring 3GPP closer to the ongoing initiatives of various global/regional research organizations (B5GPC, 6G Forum, IMT-2030 (6G), Bharat 6G Alliance, NGA and 6GSNS) and 3GPP Market Representation Partners (GSMA, NGMN, 5GAA, 5G-ACIA, 5G-MAG,...) views regarding 6G priorities and use cases for 2030.
- 245 delegates attended face-to-face, and another 383 as remote participants.



European input

- **3GPP SA1** invited **SNS** to participate in the workshop and present the envisioned 6G Use Cases based on the projects' work

- As SNS values collaboration with all EU stakeholders, it has invited EU National Initiatives to contribute to a coherent <u>European view</u>, formulated through SNS-ICE
- The following projects have contributed:







6G-NTN

















National initiatives

SNS projects



Use case families

Cooperating Mobile Robots

Autonomous Embodied Agents Within Flexible Manufacturing

Mesh Embodied Intelligence

Collaborative Robots

Physical Awareness

Network Assisted 3D Mobility

Network Physical Data Exposure

Wide-area surveillance/Smart Crowd
Monitoring

Environmental radio sensing

Seamless Immersive Reality

Immersive Enterprise & Industry

Immersive Education

Immersive Gaming

Live and Interactive Immersive Content Creation

Immersive Experience

Sustainability



Twins

Digital

Realtime Digital Twins

Cloud Continuum

Smart Maintenance

Digital Twins (Building Model)

Public Protection & Disaster Relief Digital Twin

Human-Centric Networks

Industrial Sensors Network for Safe Production & Manufacturing

Wireless In-Vehicle Network

Virtual Control Room

Trusted Environments

Fully Connected World

More detailed material available in the Appendix

Ubiquitous and Resilient Network

Digital Sobriety and Enhanced Awareness

Earth Monitor, Sustainable Food Production

Autonomous Supply Chain

Virtualization of Device Functionalities

Resilient Communication for Safety critical Applications



3GPP standards and SNS-JU impact Webinar



- Goal: gained insights into the role of standardization in European projects, the significance of 3GPP, and methods to enhance the standardization impact of research initiatives.
- Targeted Audience: SNS-projects members and researchers, with around 60 attendees.
- Agenda

14:00 – 14:15: "European/SNS-JU view on the importance of standards" – Agustin Diaz-Pines (European Commission)

14:15 – 14:45: <u>"3GPP presentation and update"</u> – Jose Luis Almodovar Chico (3GPP SA1 chair)

14:45 – 15:30: "Best practices and success stories"

- Mikko Uusitalo (Hexa-X-II Flagship project) –
 Nokia
- Daniel Lönnblad (SA1 delegate) Ericsson
- Devaki Chandramouli (SA2 delegate) Nokia

15:30 – 16:00: Round table on "Best practices and success stories"



Smart Networks and Services International and European Cooperation Ecosystem

Thank you for you attention!





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https://smart-networks.europa.eu/csa-s/#SNS-ICE



https://linkedin.com/company/sns-ice



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