



Media&Entertainment White paper 2025

Pierre-Yves Danet

NEM Summit, Berlin, 21 October 2025



Co-funded by
the European Union



smart-networks.europa.eu

SNS CO-OP support action



- SNS CO-OP will facilitate the achievement of the SNS JU impact by operating, maintaining and improving the mechanisms to facilitate and foster the necessary knowledge sharing, **collaboration**, exploitation, and consolidation among the new SNS JU actions, the affected communities and relevant **vertical sectors** to help reach the digital targets. The SNS CO-OP impact goals will be distributed across the project activities and will include among others:
 - Enhancement of the 6G SNS Vision
 - Measurable Programme Progress and KPIs/KVIs
 - Maintaining the holistic view of progress on implementing SNS and 6G in Europe
 - Widespread dissemination of European achievements
 - Growing the 6G SNS constituency
 - Supporting early exploitation of results
 - Supporting relevant Key Values and Policies

Vertical white papers development

- In 2025, The SNS JU technology board has decided to develop white paper presenting the results of SNS JU projects with regards to verticals
- 4 papers are being developed
 - **Media&Entertainment**
 - Public safety (PPDR)
 - Health
 - Manufacturing
 - Others will come later

Objectives of these white papers

- What are the key requirements from the M&E sector?
- What technologies are being investigated?
- What is the added value of B5G/6G for these use cases?
- What are the main challenges and envisioned solutions?
- What has been achieved so far within SNS JU?
- What are the lessons learned and way forward?
- Business models?
- Open calls?

M&E white paper content



1. Introduction	5. Section 4: Challenges and considerations
1.1. Background information on 6G technology	5.1. Technical solutions
1.2. Importance of the 6G in Media and Entertainment	5.1.1. Infrastructure requirements for the next-generation M&E services
1.3. Objective of the white paper	5.1.2. Security and Privacy Considerations
2. Section 1: Understanding 6G technology	5.1.3. Interoperability and Standardization Challenges
2.1. Definition and overview of 6G	5.2. Sustainability
2.1.1. What is 6G?	5.3. AI for M&E
2.1.2. Evolution from 5G to 6G	5.4. End user devices
2.2. Key features of 6G	5.5. Regulatory, ethical, and societal considerations
3. Section 2: The impact of 6G on Media and Entertainment	5.5.1. Eu policy and regulatory framework for 6G: preliminary mapping
3.1. Enhanced user experience	5.5.2. Pragmatic changes in modes of communication
3.2. Content creation and distribution	5.5.3. Contents and social change
3.3. M&E services and applications	5.5.4. Final mapping per most relevant policies, values, and concerns
4. Section 3: Use cases and applications	6. Section 5: Future outlook
4.1. Virtual and augmented reality	6.1. Prediction for 6G adoption by the M&E sector
4.2. Live streaming and broadcasting	6.1.1. Timeline for 6G Deployment and Early Market Uptake
4.2.1. Advanced sports area media services	6.1.2. Potential Market Growth and Transformation
4.2.2. Immersive Fan Engagement	6.1.3. Adoption Drivers and Barriers
4.2.3. Media streaming carbon footprint transparency	6.1.4. Strategic Implications and Outlook for Europe's M&E Innovation Ecosystem
4.2.4. Networked Music Performance	6.2. Long-term impact on Media&Entertainment
4.3. Smart advertising	7. Conclusion
4.4. Holographics communications	APPENDIX A
4.5. Collaborative Metaverse scenarios	DETAILED USE CASE DESCRIPTIONS
	58

M&E white paper status and next steps

A full draft version has been provided to internal reviewers last week (78 pages), it has been populated by 39 experts working in 14 projects from Call 1, Call 2 and Call 3.

The objective is to get comments from reviewers by the end of October and to get approval from the SNS JU Board in November.

In the context of the 6G-IA/NEM MoU, we shall be happy to get comments from the NEM members, it will be a real added value.

This paper will be used to feed the SNS JU 2027 WP which will be developed early next year. A number of projects will be funded under stream D which will address vertical use cases development.

Main conclusions (1/2)

The paper is highlighted the following key take aways

- The 22 SNS JU running projects have developed and experimented a number of new technologies and use cases addressing the Media and Entertainment vertical sector.
- They are addressing Virtual and augmented reality, Live streaming and broadcasting, advanced sports area media services, immersive fan engagement, Media streaming carbon footprint transparency, networked music performance, smart advertising, holographic communications and collaborative metaverse scenarios.
- The main expectation of this M&E vertical sector are high bandwidth and low latency in order to deliver innovative services with a good quality of experience.
- M&E applications are also facing security and privacy issues with regards to fake information and AI generated content.
- Interoperability and standardisation challenges need also to be taken into consideration, sustainability and end user devices are also key topics addressed by the projects.

M&E use cases developed and experimented by projects

- 46 M&E use cases have been developed by 22 SNS JU projects, some are focussing on technologies for M&E use cases, others on verticals use cases.
- All these use cases are available in the Vertical Engagement Tracker <https://verticals-tracker.sns-ju.eu/vertical-engagement-tracker>
- The VET is open to anyone
- Some use cases have been identified as “Replicable”, they are offering a replicability level which can help anyone to reuse those use cases in other locations.

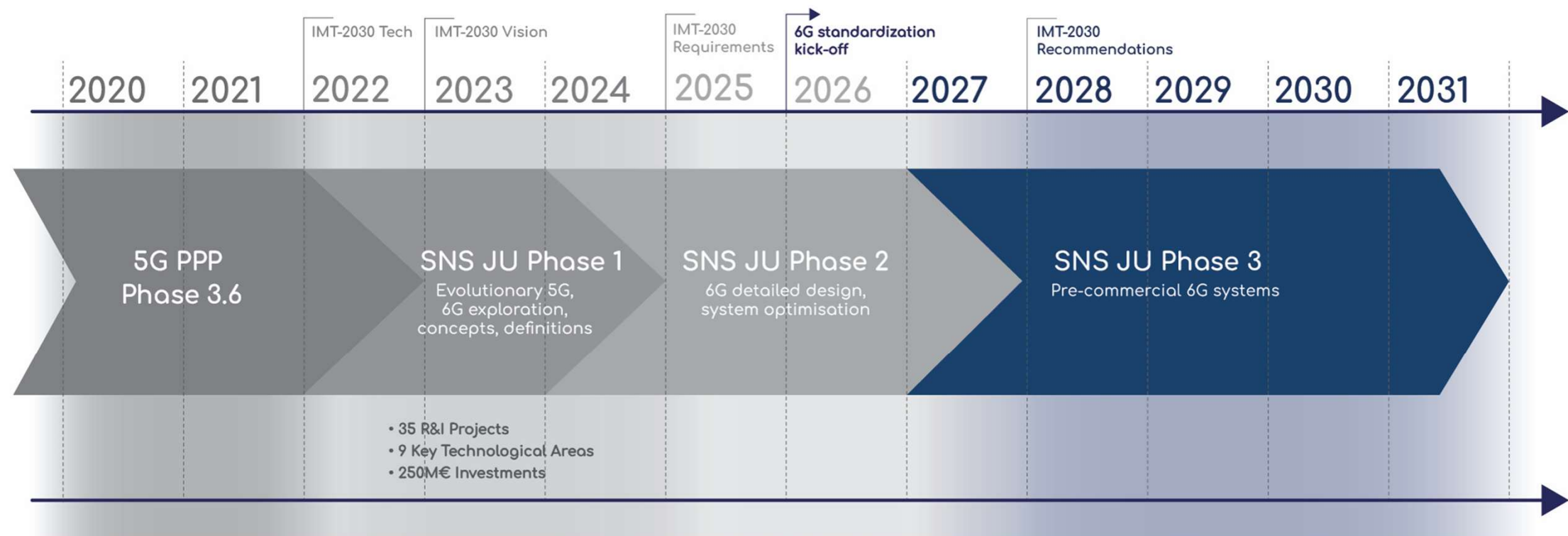
List of M&E use cases developed and experimented by projects



Project	Phase	Stream	case-name
5G-STARDUS	Phase 1	Stream A	Residential Broadband
6G-BRICKS	Phase 1	Stream C	Use Case 1: Metaverse as an enabler of a Modern
6G-DALI	Call 3	Stream B	AlaaS for CDN apps via cross-testbed decentralize
6G-INTENSE	Phase 2	Stream B	Metaverse
6G-LEADER	Call 3	Stream B	XR and UAV seamless real-time interaction
6G-SANDBOX	Phase 1	Stream A	Testing the integration of an open-source 5G FR2
6G-SANDBOX	Phase 1	Stream C	Internet of Sense
6G-SHINE	Phase 1	Stream B	Virtual live production
6G-SHINE	Phase 1	Stream B	Indoor interactive games
6G-XR	Phase 1	Stream C	Energy Monitoring System for Energy-Efficiency O
6G-XR	Phase 1	Stream B	6G-REMIX
6G-XR	Phase 1	Stream C	FALADIN
6G-XR	Phase 1	Stream C	METAPHOR - Volumetric Capture and Transmissio
6G-XR	Phase 1	Stream A	6G-SLICE: Enabling end-to-end O-RAN slicing in 6G
6G-XR	Phase 1	Stream C	5G-SIAIce
6G-XR	Phase 2	Stream B	5G/6G FWA with optical RAN
6G-XR	Phase 1	Stream C	REQUIEM
6G-XR	Phase 1	Stream C	TrustNet
6G-XR	Phase 1	Select Stream	ExCalibAR
6G-XR	Phase 1	Stream C	Control plane optimisations
ADROIT6G	Phase 1	Stream B	Holographic Teaching
DESIRE6G	Phase 1	Stream B	Intelligent and resilient VR/AR applications with p
EXIGENCE	Phase 2	Stream B	Media streaming carbon footprint transparency
FIDAL	Phase 1	Stream D	Music live streaming over 5G network
FIDAL	Phase 1	Stream D	VideoGee
FIDAL	Phase 1	Stream D	AI-HOLOCOM

Project	Phase	Stream	case-name
FIDAL	Phase 1	Stream D	B5GVideoNet (B5GVN)
FIDAL	Phase 1	Stream D	Internet of senses / Haptic sensing
FIDAL	Phase 1	Stream D	UC4: Advanced sports area media services
FIDAL	Phase 1	Stream D	UC5: Virtual Reality Networked Music Performanc
FirstTo6G	Phase 2	Stream B	Ultra-high data rate
FLECON-6G	Call 3	Stream B	Seamless Immersive Reality
Hexa-X-II	Phase 1	Stream B	End-to-End Extended Reality: Seamless Immersive
Hexa-X-II	Phase 1	Stream B	ML-based channel state feedback compression in
Hexa-X-II	Phase 1	Stream B	AI-Native Air Interface: Seamless Immersive Realit
Hexa-X-II	Phase 1	Stream B	Training and inference of collaborative distribute
HORSE	Call 1	Stream B	Remote Rendering to Power XR Industrial
IMAGINE-B5	Call 3	Stream D	Robust and flexible remote production
IMAGINE-B5	Phase 1	Stream D	New Use Cases: Enhanced Touristic Experiences w
NANCY	Phase 1	Stream A	Greek outdoor demonstrator
SAFE-6G	Phase 2	Stream B	Metaverse for Education & Formation
SAFE-6G	Phase 2	Stream B	Industrial Metaverse of a production line
SEASON	Phase 1	Stream A	User-driven immersive experiences
SEASON	Phase 1	Stream A	User-driven immersive experiences
Select projec	Phase 1	Stream D	Content Distribution
select projec	Phase 1	Select Stream	AR enriched events
5G TOURS	Phase 1	Stream D	UC13.2- Extended XR Museum Experience
SUNRISE-6G	Phase 2	Stream C	Federated Metaverse
TeraGreen	Phase 2	Stream B	Live immersive XR in large-scale events
TrialsNet	Phase 1	Stream D	UC10- Immersive Fan Engagement
UNITY-6G	Call 3	Stream B	Real-time XR/holographic communication

SNS JU roadmap





THANK YOU FOR YOUR ATTENTION



Co-funded by
the European Union

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

THIS PROJECT
IS PART OF **6G SNS**
smart-networks.europa.eu