

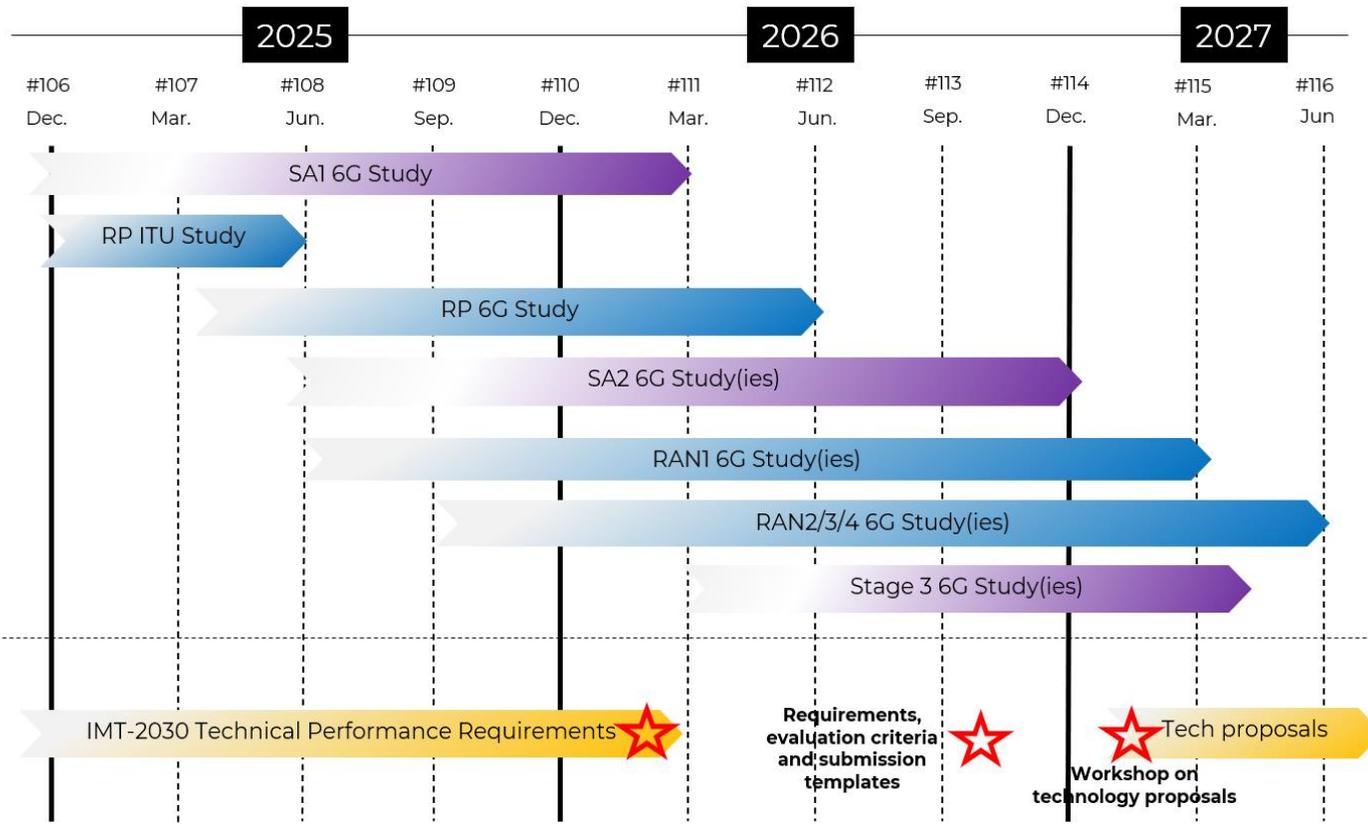


WP7 - Deliverable 7.8

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# Impact to industry activities, standardisation and regulation - Final release





# 6G standardization timeline

## 2025:

- Start of 6G Study Items in 3GPP (Release 20/21) - Technical exploration of potential 6G technologies

## 2027:

- 6G Work Items initiated in 3GPP (Release 22) - Formal standardization process for 6G starts

# The main planned standardization activities



## 3GPP - R20/R21 releases onwards

- **SA1:** Use cases, corresponding requirements and key performance/value indicators
- **SA2:** Modular architecture, use of AI/ML, RAN-CN interface, etc.
- **SA3:** Security and privacy threats, and their impact on system resilience
- **SA5:** Flexible network configuration, sustainable and trustworthy AI/ML-based control
- **SA6:** AI/ML model life cycle and performance degradation
- **RAN (1,2,3,4):** Radio Interface architecture and protocols, the specification of the Radio Resource Control protocol and the Radio Resource Management procedures, Intelligent radio air interface design, flexible spectrum access solutions, Non-Terrestrial Networks (NTN) solutions, Joint communication and sensing, RedCap devices

## ITU-R/T

- EMF, environment, climate action, sustainable digitalisation and circular economy.
- Flexible spectrum use and access, Spectrum management
- 6G vision and requirements

## GSMA

- Use cases, corresponding requirements and key performance/value indicators

## BEREC

- Environmental sustainability

## IRTF

- AI-based orchestration

## ETSI

- **ZSM:** Security and privacy threats, Programmability, zero-touch automation, AI-based network management and orchestration, trustworthy management and integration fabric, interdomain network and service management
- **THz:** Channel modelling, sub-THz radio
- **ISG SAI:** Understanding of the risks associated to widespread use and support to AI by networks, including the realisation of relevant proofs of concept

## IETF

- Deterministic network (data plane) and orchestration (control plane)
- Mobility management
- Application of attestation techniques, quantum-safe technologies, and automated certificate and key management procedures to improve security and privacy in next-generation networks.

# Standard contributions of technical WPs of Hexa-X-II



Type	Targeted by the end of the project	Achieved
Standards and industry groups impacted	3GPP RAN, 3GPP SA, ITU, NGMN, ORAN nGRG, GSMA, BEREC, ETSI, TMFroum, IETF, IRTF	3GPP RAN, 3GPP SA, ITU, ETSI, IETF, IRTF
Total number of standards contributions by participants based on work in Hexa-X	More than 120	151

# Workshops organized/participated by Hexa-X-II partners



- Joint SNS-JU stream B workshops (Jan 2024 and Oct 2024)
- 3GPP standard and SNS-JU impact webinar
- 3GPP SA1 workshops
- ETSI/ITU-T SG5 workshop on sustainability
- Radio Spectrum Policy Group (RSPG) sub-group on the 6G strategic vision
- Workshop on 3GPP and O-RAN Alliance



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HEXA-X-II.EU //   



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