



Defining the Next Era of Connectivity

New challenges for European regulators

Smart Networks and Services Joint Undertaking

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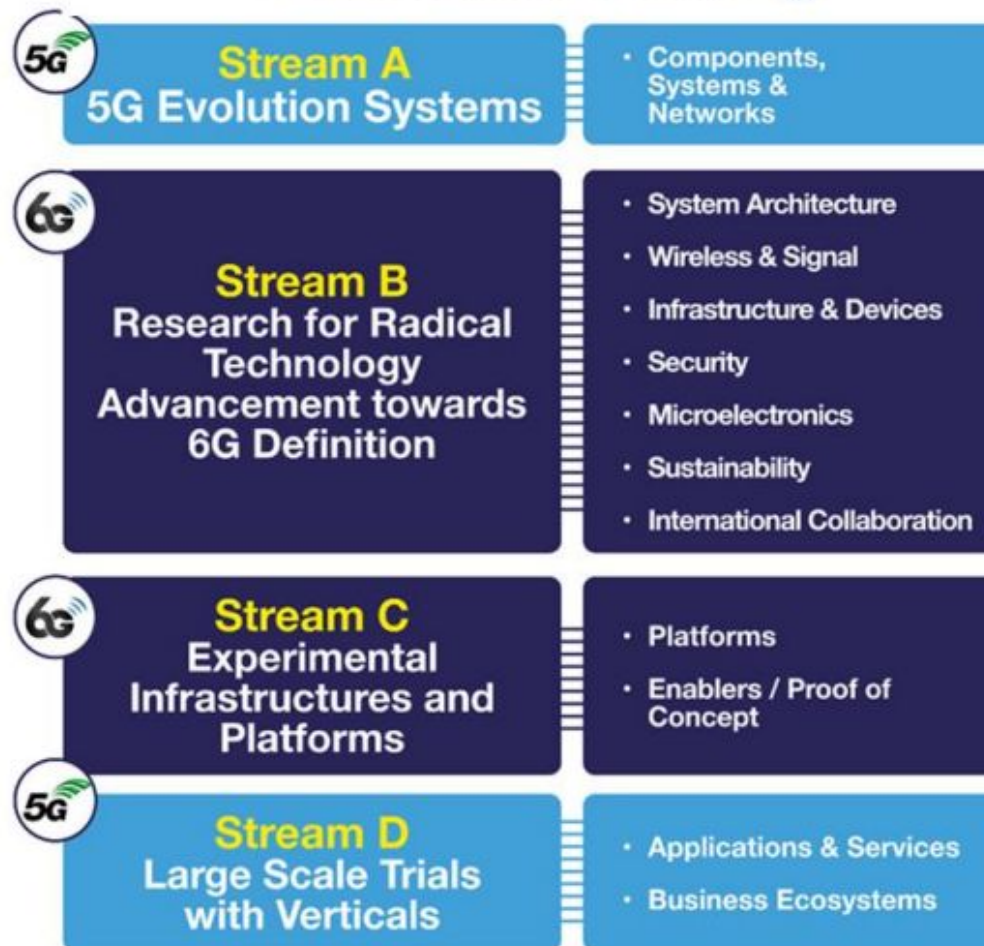


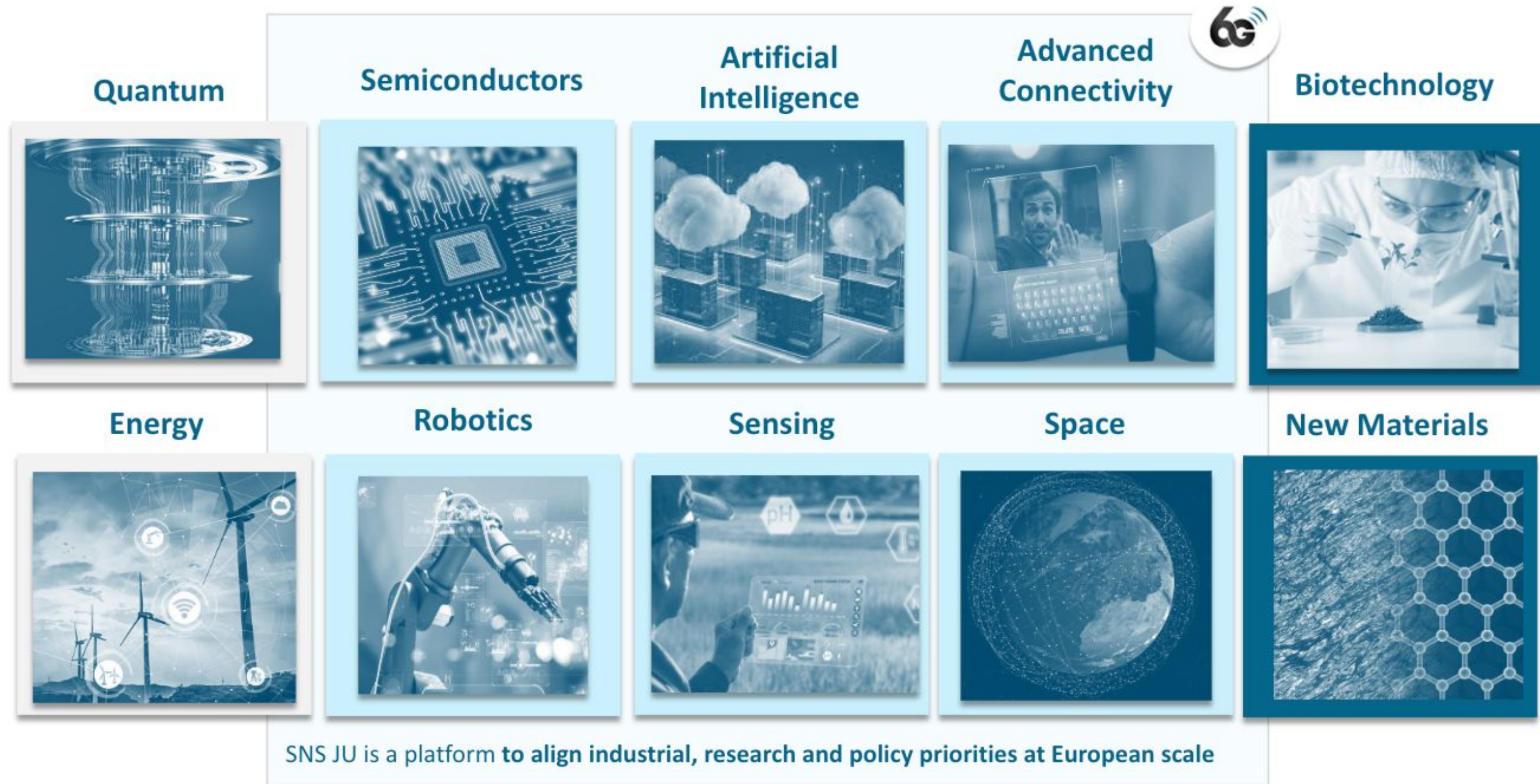
Europe's flagship public-private partnership for 6G research and innovation

Brings together industry, academia, and policymakers to develop next-generation network technologies

Underpins the next generation of digital networks and services powering European competitiveness

~618M€ of EU Public Funding







is not just a new RAN, It is the beginning of a new cyber-physical infrastructure stack



**Single
Standalone
architecture
from Day 1**

**Multi-RAT
Modular Design
5G Interoperable**



**Ubiquitous
Coverage**

**Multi-Layer
integration with
NTN , Wi-Fi and
other networks**



**Multi-Domain
AI / ML
Orchestration**
+Sensing
+Computing



Sustainability
+ Energy
Efficiency



Resilience
+ Secure
+ Trustworthy



Softwarization
Open APIs
to manage &
expose network
assets

6G natively integrates satellites, HAPS and UAVs as nodes. Seamless handovers to maritime, aviation and cross-border areas.

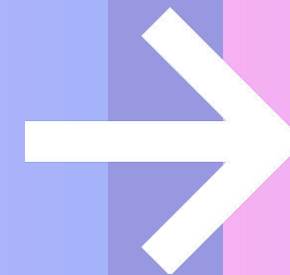


Example 1

NTN – TN integration

FROM

- Networks are **territorial**
- **Single-Layer** Vulnerability
- Connectivity as **National Infrastructure**
- TN-NTN Coexistence



TO

- NTN **cross borders** continuously
- **Multi-Layer** Redundancy
- Connectivity with **Global Reach**
- TN-NTN Integration

New policy
questions

| USO vs services with global reach | Lawful intercept| Security|
| Spectrum coordination | Data sovereignty | Licensing |

ISAC uses 6G signals for communication and sensing.

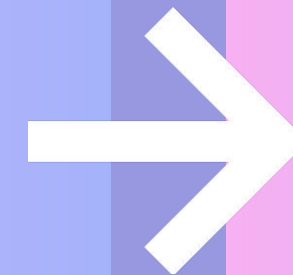
Blurs telecom and surveillance, creating a potential new regulatory territory.



Example 2
ISAC

FROM

- **Single-role** connectivity
- **Context-blind** operation
- Business model of **bit transport**



TO

- **Dual-role** perception + connectivity
- **Context-aware** autonomous adaptation
- **Intelligence as a Service**

New policy
questions

| Data ownership | Mass surveillance risk | Interference protection | Regulatory
jurisdiction | Liability frameworks |

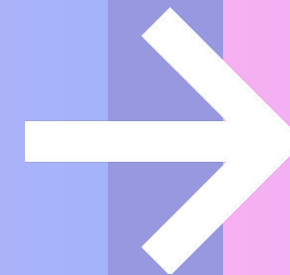
6G embeds AI/ML directly into the network to self-optimize in real time



Example 3
AI Networks

FROM

- **AI-assisted** networks. Bolted-On by Addition
- Traditional **control and user planes**.
- **Human-Driven** Optimisation
- Selective and **Optional**

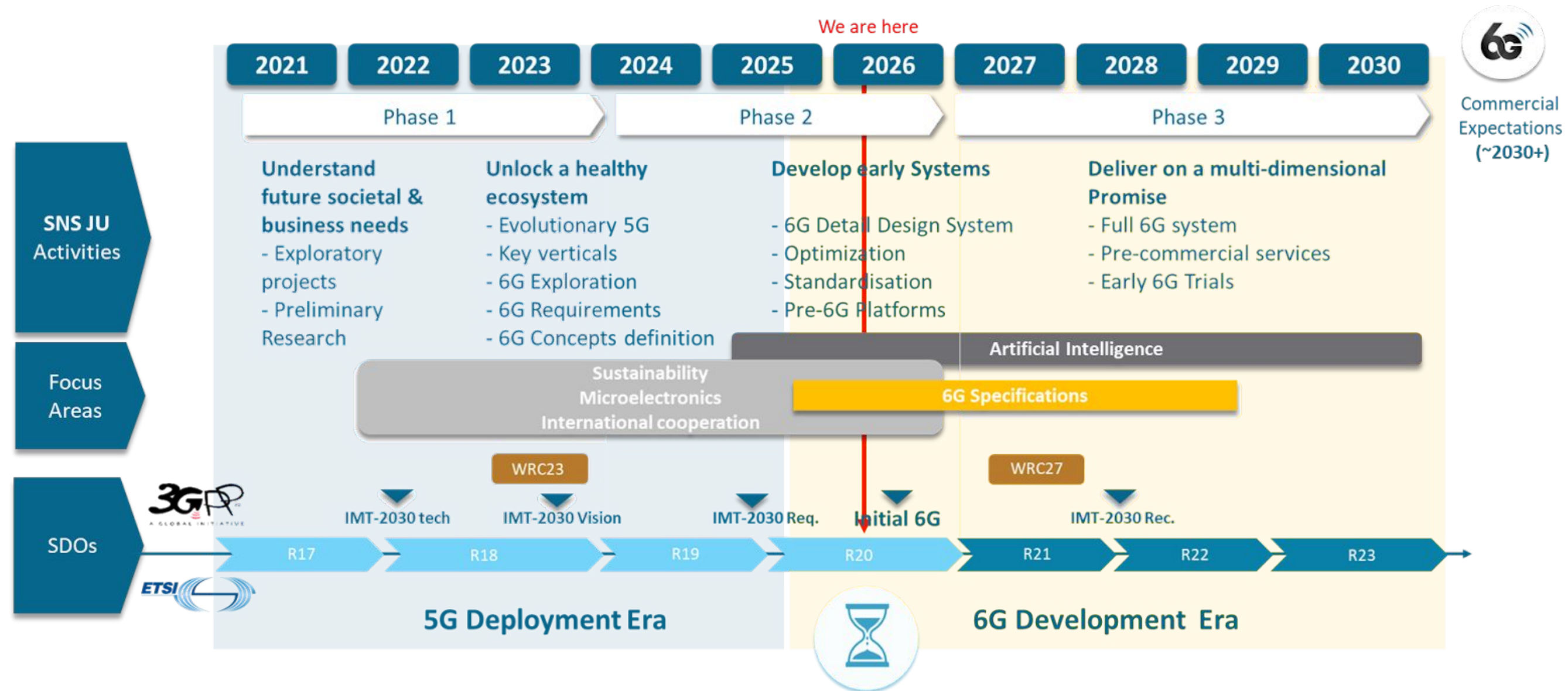


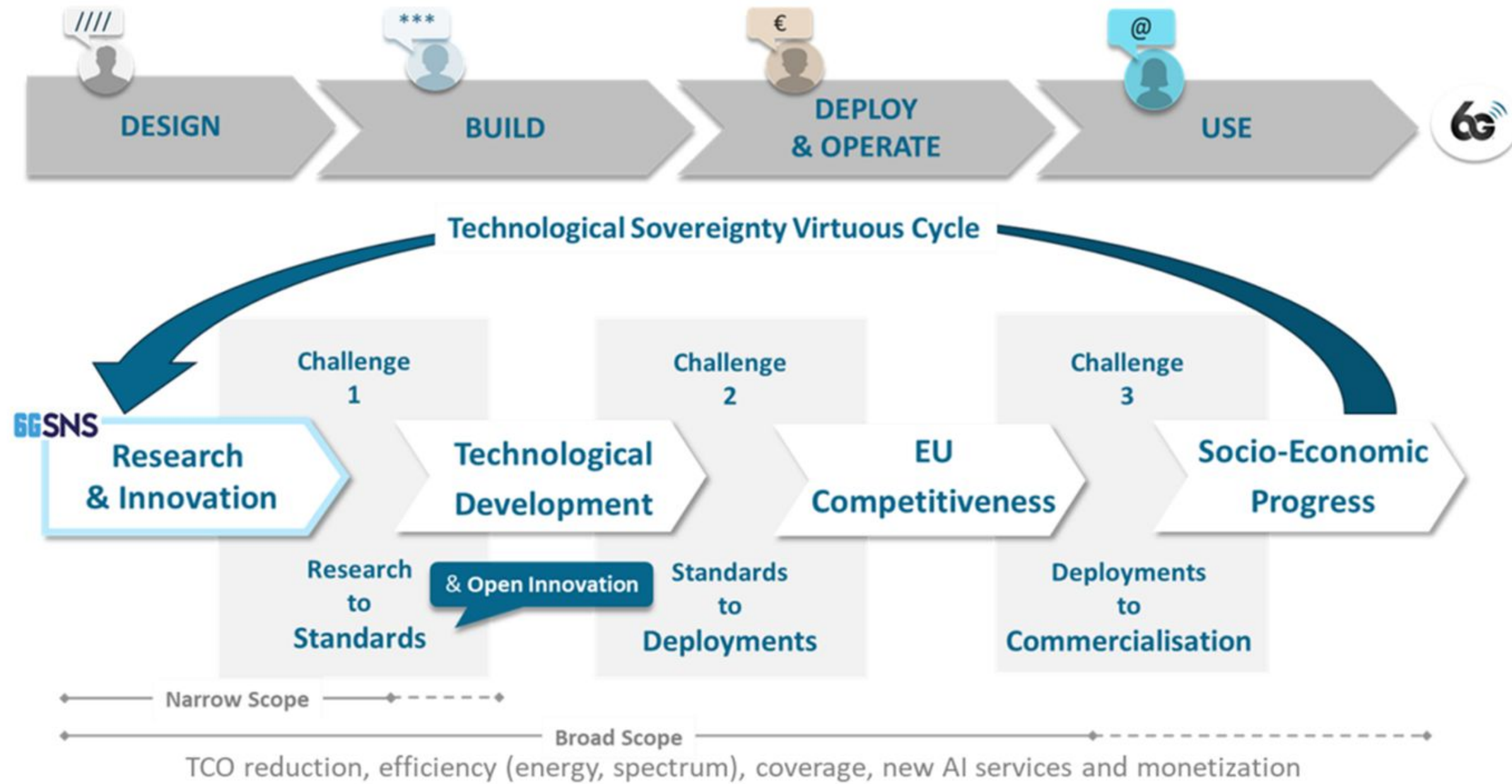
TO

- **AI-native** networks. Built-In by Design
- New “**AI plane**” alongside traditional planes
- Closed-Loop **AI agents driving automation**
- Pervasive and **Obligatory**

New policy
questions

| Governance and liability frameworks| Audit | AI-controlled spectrum sharing |AI
network data | AI optimisation systems |





**Innovative****Competitive****Sovereign**

Communication infrastructures powering our digital society

How do we ensure that the infrastructure powering our digital society remains innovative, competitive and sovereign?

CALL FOR PROPOSALS

Open until 29 april



STAKEHOLDERS GROUP

Open until 30 april





The European Smart Networks and Services Joint Undertaking

THANK YOU FOR YOUR ATTENTION!



#SNSJU



Contact us at: smart-networks.europa.eu