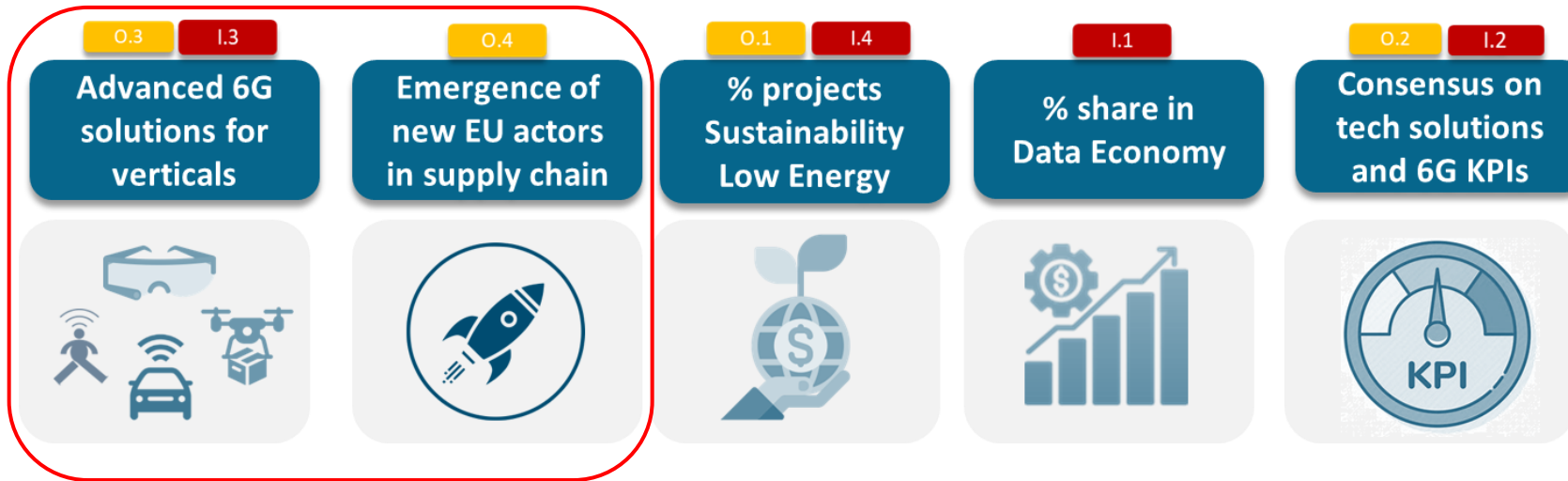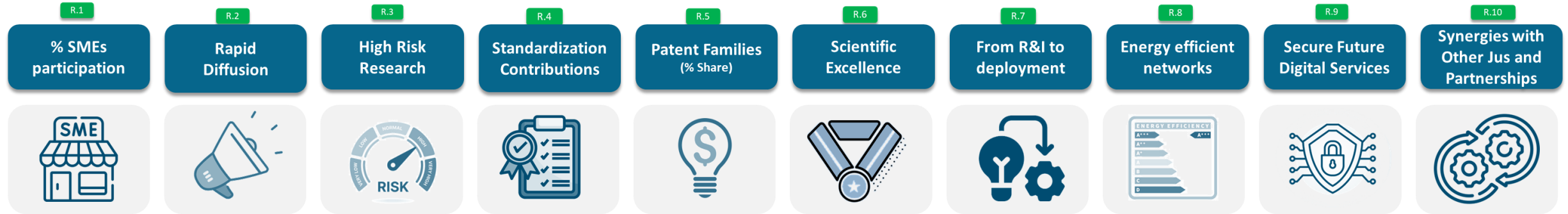- The **Smart Networks and Services JU (SNS JU)** is a Joint Undertaking (Public-Private Partnership) established by the European Commission and 6G-IA.
- Our **ambition is to lead the global transition to 6G**, with Europe at the forefront, pioneering new capabilities and innovations that will shape our connected future.
  - funding research and innovation projects
  - participating in the 6G standardization roadmap
  - coordinating deployment agendas (i.e. 5G corridors)
  - **co-creating with vertical sectors to define a diverse set of applications**
- Leadership in **6G is more than a technological achievement** . It's a commitment to digital sovereignty, economic growth, and societal advancement.

Real **6G leadership** will require unprecedented levels of **collaboration,** especially with **vertical sectors**

6GSNS

HEXA-X-II

6 families of use cases that will transform society, industries and competitiveness

COLLABORATIVE ROBOTS

The network's main users are machines.

Emphasis lies on task-specific local connectivity. Depending on the task or needs, the network topology may undergo frequent changes. The level of machine autonomy determines the communication requirements.

Use Cases
Cooperating Mobile Robots | Autonomous Embodied Agents with Flexible Manufacturing | Mesh Embodied Intelligence

PHYSICAL AWARENESS

Physical Awareness use cases build on beyond-communication capabilities in networks: sensing, positioning, compute, and AI. By gathering 3D data about physical scenarios and situations, efficiency and safety can be improved.

Use Cases
Network Assisted 3D Mobility | Network Physical Data Exposure | Wide-area surveillance/Smart Crowd Monitoring | Environmental Radio Sensing

DIGITAL TWINS

Digital Twins is a set of use cases where digital equivalents of the real world are created and displayed for interaction, control, maintenance, as well as process and component management.

Use Cases
Realtime Digital Twins | Cloud Continuum | Smart Maintenance | Digital Twins (Building Model) |

IMMERSIVE EXPERIENCE

Immersive Experience use cases are based on an evolving XR technology.

Immersive Experience is all about meeting the fundamental human need of "experiencing" a now digitally extended or virtual environment to understand and to act.

Use Cases
Seamless Immersive Reality | Immersive Enterprise & Industry | Immersive Education | Immersive Gaming | Live and Interactive Immersive Content Creation

TRUSTED ENVIRONMENTS

Comprehends use cases in local environments (streets, hospitals, schools, retirement homes) delivering human-centric services and promoting health, well-being, safety, inclusion, and autonomy in daily life.

These are based on sensing technologies as well as AI/ML and compute support to create spatial and situation awareness and enable context-driven interventions.

Use Cases
Human-Centric Networks | Industrial Sensors Network for Safe Production & Manufacturing | Wireless In-Vehicle Network
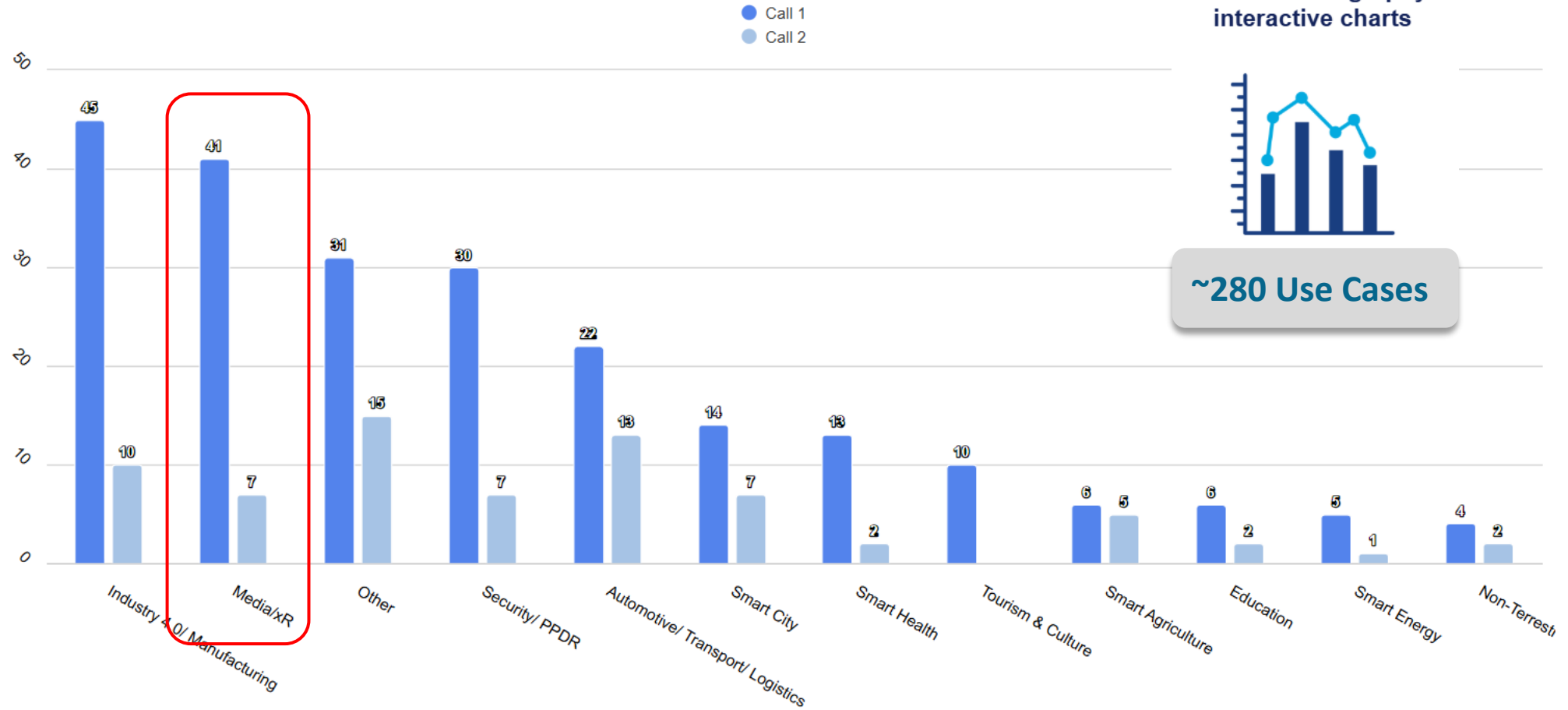
FULLY CONNECTED WORLD

Ensuring connectivity **everywhere**, expanding beyond purely traditional terrestrial networks to deliver the benefits of communications to everybody.

Besides expanding coverage cost-effectively, it also enables network function availability for crisis management, earth monitoring, digital health services, virtualisation of device functionalities, or support of autonomous supply chains.

Use Cases
Ubiquitous and Resilient Networks | Digital Sobriety and Enhanced Awareness | Earth Monitor & Sustainable Food Production | Autonomous Supply Chain | Virtualization of Device Functionalities | Resilient Communication for Safety Critical Applications

Call 1 and 2 Vertical sectors

Verticals Cartography | 6G SNS Tracker

~280 Use Cases

Vertical cartography interactive charts

SNS JU programme structure and portfolio
~100 projects by mid 2026

~630 MM € of public funding investment in SNS JU Calls

		Call 1 Started Jan '23	Call 2 Started Jan '24	Call 3 Started Jan '25	2025 Calls To be Started in 2026
Stream A 5G Evolution systems	Components, systems & networks	**7** Complementarity projects validate **complete system** view			
Stream B Research for radical technology advancement towards **6G definition**	System Architecture / Wireless & Signal / Infrastructure & Devices / Security / Microelectronics / Sustainability / International Collab	**19** projects research **Novel technologies** expected to be adopted in commercial networks in a **mid /long-term horizon**	**24** projects working on Innovative solutions towards real life networks over a **long-term horizon.** Also targets **International Cooperation**	**12** projects targeting a higher TRL range, compared to previous calls, aiming to produce **more mature results** and impact on standardization . Includes lighthouse project on **Sustainability** and targets **International Cooperation**	**16** projects on **Forward looking topics** (advance architectures and IoT), **Wireless tech** (MIMO, AI/ML, Spectrum sharing, Open RAN), **NTN- TN** unification/integration, Optical networks and **Photonics**, **Security and Resilience**, and **Microelectronics**.
Stream C Experimental Infras/Platforms	Platforms / Enablers/ Proof Concept	**3** projects validate **6G technical enablers**	**1** Europe-wide **experimental infrastructure(s)** to support SNS program	**1** project on integration of **microelectronics** components	**1** project on **Telco cloud** and service provision enablers
Stream D Large Scale Trials With Verticals	Applications & services / Business ecosystems	**4** projects on specific verticals with **high economic and societal importance**	**2** projects focusing on i) **Automotive** ii) **Health, Smart Cities, Farming and Education**	**2** projects on advanced **5G/6G technologies in/for verticals**, with special focus on sustainability	**4** projects on (1) Industry/Manufacturing, (2)Media (3)Transportation/Logistics, (4) Emergency Services and (5) Health
		Call 1 240 MM €	Call 2 132 MM €	Call 3 129 MM €	Call 4 128 MM €