



## MISSION AND VISION STATEMENT

The Smart Networks and Services (SNS) partnership targets a reinforced European leadership in the development and deployment of next generation network technologies, connected devices and services. It will provide solutions beyond the technological improvements of connectivity platforms, bringing unique new service capabilities with wider economic implications. Thus, it will also focus on the full digitisation of European society including vertical industries (e.g., automotive, health, Industry 4.0, maritime, broadcasting and media, public safety, transport, utilities, etc.) and public administrations. The aim is to progress towards the technological and business realisation of the 6G vision and ensure a clear European voice on 6G around the world. The vision is the massive digitalisation of societal and business processes through intelligent connectivity across the human, physical and digital worlds.

## KEY FACTS AND FIGURES

**Horizon Europe Pillar and Cluster:** Pillar II – Cluster 4: Digital, industry and space

**Type of partnership:** Institutionalised (Art 187 TFEU) – joint undertaking

**Coordinating entity:** 6G Smart Networks and Services Industry Association (6G-IA)

**Total estimated budget:** EUR 1.8 bn

**EU commitments:** EUR 900 m

**Partners' commitments:** Up to EUR 900 m

**Predecessor under Horizon 2020:** a new partnership that builds on the results of the 5G cPPP

## FIND OUT MORE

<https://6g-ia.eu/>

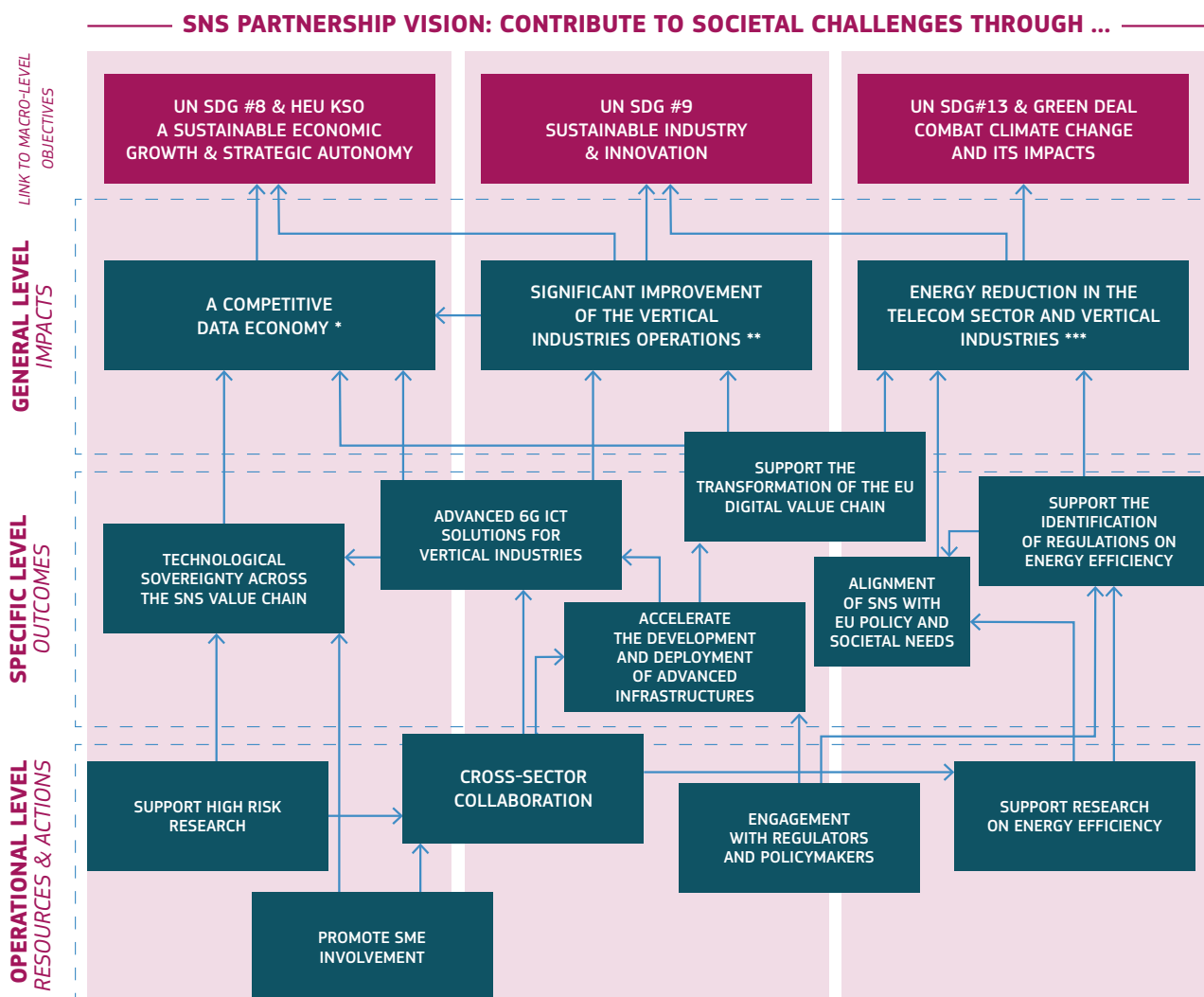


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**PARTNERSHIP SPECIFIC IMPACT PATHWAY (PSIP)**



\*SNS Objective 1 (SBA): advance European technological and scientific excellence to support European leadership to shape and master 6G systems by 2030

\*\*SNS Objective 2 (SBA): prepare the European smart networks and services supply industries for the longer-term opportunities emerging from the development of vertical markets for 5G and later 6G infrastructures and services in Europe

\*\*\*SNS objective 3 (SBA): accelerate the development of energy-efficient network technologies with the aim of significantly reducing the energy and resource consumption of the whole digital infrastructure by 2030 and decreasing the energy consumption of key verticals industries supported by smart networks and services technologies



**PARTNERSHIP'S KEY PERFORMANCE INDICATORS**

KPI NAME	UNIT OF MEASUREMENT	BASELINE	TARGET 2023	TARGET 2025	TARGET 2027	AMBITION >2027
<b>RESOURCES (INPUT), PROCESSES AND ACTIVITIES</b>						
SME innovation and participation	% participation	N/A	20 %	20 %	20 %	20 %
Rapid diffusion	# of end-user workshops & webinars [cumulative]	0	25	60	90	125
High risk research funding	% of total	0	50 %	40 %	30 %	N/A
Standardisation contributions	# of standards development organisations [cumulative]	0	50	350	750	1000
Share on family patents	% of patent families	0	15 %	15 %	15 %	15 %
	Patent grant rate		60 %	60 %	60 %	60 %
Scientific excellence	# of publications [cumulative]	0	100	400	700	1000
Collaboration and synergies with other partnerships	# collaborations [cumulative]	0	2	5	6	6
<b>OUTCOMES</b>						
Development of energy efficient networks	White papers [cumulative]	GeSI report on energy consumption by 2030	1	2	3	>3
Technological solutions consensus building	White papers [cumulative]	0	1	2	3	N/A
Advanced 6G solutions for verticals	White papers [cumulative]	0	3	6	10	N/A
<b>IMPACTS</b>						
A competitive data economy	% market share for the communication network	40 %	N/A	N/A	N/A	N/A
Programme-level consensus on 6G KPIs	White papers [cumulative]	NetworldEurope SRIA	1	2	3	N/A
Uptake of digital solutions within verticals	# of large-scale trials [cumulative]	0	3	6	10	>10
Energy efficiency of cellular telecommunication networks	% increase	Legacy cellular systems (4G)	N/A	N/A	N/A	N/A

- KPIs for resources processes and activities 2, 4, 6, 7; outcomes 1, 2, 3; and impact 2, 3 consider cumulative numbers during the lifetime of the SNS partnership.
- Funding for high-risk research is expected to decrease as after 2025 the standardisation process for 6G networks is expected to be fully active.
- Market share by EU headquartered companies is currently set at a baseline of 40% for the communications market. The targets for the following years are expected to be set by 2023 as until then no 6G results will be available by the projects and their adoptions at a market level will take longer.
- Setting up the 6G KPIs is an ongoing process. As a baseline, the KPIs from Networld Europe SRIA as well as ongoing efforts from 5G PPP ICT-52 projects will be considered (not currently available).
- For impact KPI 1 the relevant target values for market share in sectors such as cloud computing and, IoT will be delivered by end of 2023.
- For impact KPI 4 the target values will be defined in 2023.

## **SYNERGIES WITH OTHER EUROPEAN AND NATIONAL INITIATIVES**

### **SYNERGIES: STORY 1**

In 2021 the 6G-IA has collaborated with the AENEAS industrial association, (Key Digital Technologies - KDT partnership) and under the context of the COREnect (European Core Technologies for future connectivity systems and components) project. The target was to identify potential opportunities for maximising the opportunities for the European micro electronic industry to successfully contribute to the mid-term 6G standardisation discussion. In addition, the SNS community has contributed with input in the Electronics Components and Systems (ECS) Strategic Research and Innovation Agenda (SRIA) and presented potential topics in the Visions of ECS beyond a 2023 workshop. Moreover, 6G-IA is currently working on identifying how these topics can be mapped in envisioned 6G architecture, as developed by the 5G PPP Hexa-X project.

### **SYNERGIES: STORY 2**

In 2020 6G-IA and the CCAM partnership collaborated to clarify the activities of the two partnerships and the scope of their activities. In 2021 the communication link between the two partnerships was re-established to coordinate on activities of common interest (e.g., SDA for CEF2). SNS will additionally explore future synergies with Photonics, HPC and AI, Data and Robotics partnerships. The SNS proposal indicated that biennial workshops will be organised with the related partnerships to exchange information about key findings, opportunities, etc. Moreover, collaboration with these partnerships is expected to take place for the preparation of future SRIAs and WPs.

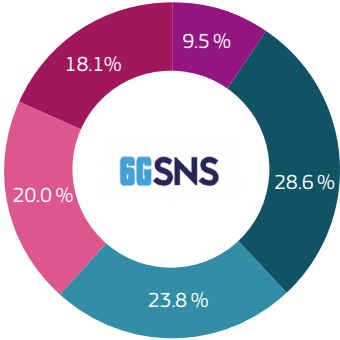
### **SYNERGIES: STORY 3**

SNS plans to explore future synergies with key vertical sectors by leveraging existing partnership agreements with industry fora in such domains as automotive, transportation, media, manufacturing, public safety, cybersecurity and satellites. Partnership agreements are intended to be extended to further sectors such as health and utilities. Partnership agreements allow a better understanding among ICT stakeholders and vertical industries. The goal is to identify functional requirements from the vertical industries and candidate ICT solutions that can address them through appropriate 6G validation trials.



**OVERVIEW OF MEMBERS**

**MEMBERS PER TYPE**



- INDUSTRY** Other Industrial and/or profit Private organisation
- UNIVERSITY** University and other higher education organisations
- RESEARCH** Public research organisation (including international research organisation as well as private research organisation controlled by a public authority)
- SMEs**
- OTHERS** Non-profit, associations, state companies etc.

**GEOGRAPHICAL COVERAGE**

