



**6G SNS**

# Smart Networks and Services Joint Undertaking

CDTI-SOST, Brussels, 17 July 2023

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# Overall Vision: 2030 Digital Decade

## Skills

**ICT Specialists:** 20 million + Gender convergence

**Basic Digital Skills:** min 80% of population

## Public Services

**Key Public Services:** 100% online

**e-Health:** 100% availability medical records

**Digital Identity:** 80% citizens using digital ID



## Infrastructures

**Connectivity:** Gigabit for everyone, 5G everywhere

**Cutting edge Semiconductors:** double EU share in global production

**Data – Edge & Cloud:** 10,000 climate neutral highly secure edge nodes

**Computing:** first computer with quantum acceleration

## Business

**Tech up-take:** 75% of EU companies using Cloud/AI/Big Data

**Innovators:** grow scale ups & finance to double EU Unicorns

**Late adopters:** more than 90% of European SMEs reach at least a basic level of digital intensity

# DIGITAL EUROPE

## Digital Decade Compass



- Skills:** ICT Specialists: 20 million + Gender convergence  
Basic Digital Skills: min 80% of population
- Infrastructures:** Gigabit for everyone, 5G in all populated areas
- Semiconductors:** double EU share in global production
- Data - Edge & Cloud:** 10,000 climate neutral, highly secure edge nodes
- Computing:** First computer with quantum acceleration

- EU-Wide deployment
- Strategic capacities
- Advanced digital skills
- Testing Facility

## Capacity, Uptake & Use-cases



## CONNECTING EUROPE FACILITY

- Strategic Backbones
- Fixed + Wireless Connectivity

## HORIZON EUROPE

- Preparing/maturing technology & progress (AI/Quantum...)
- By-design regulatory compliance (e.g. privacy friendly, unbiased AI)
- Leading & best in-class (e.g. strategic open autonomy, quantum)
- Prosperity, people & planet lens (green tech, societal challenges, industrial lead...)



- Joint initiative between the EC and the European ICT industry (ICT manufacturers, telecommunications operators, service providers, SMEs and research institutions).
- Established in 2013 with 700 M€ funding
  - Phase 1: 5G core research
  - Phase 2: System development and application in vertical industries
  - Phase 3: Large scale trials and innovation infrastructures
- 5G technology leadership in EU with global impact
- Program-level collaboration among projects
- Major impact on 5G standards
- 5G platforms for trials and pilots across Europe
- Large community building, stakeholders from business and academia, SME participation
- Reference documentation, scientific publications, white papers, brochures
- Bridging phase: The Hexa-X flagship and 9 B5G/6G exploratory projects (65 M€)

### 5G R&I, trials and deployment

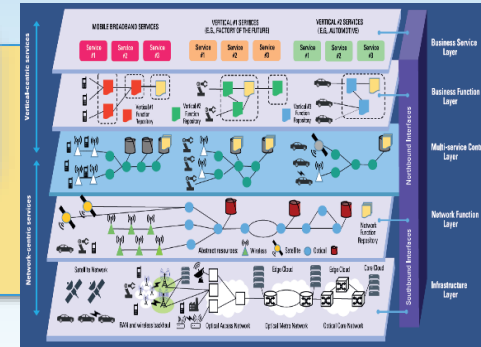


### 6G R&I in Europe has started

PHASE 1: 5G Core Research

PHASE 2: System development & applic in vertical industries

PHASE 3: Large scale trials and innovation infrastructures



- 5G PPP bridge - The Hexa-X flagship + 9 B5G/6G exploratory projects

2015

2016

2017

2018

2019

2020

2021

2022

2023

2024



6G SNS IA

**Accelerating 5G Deployment  
Connecting Europe Facility (CEF2)**

**6G SNS**

**6G Vision and R&I  
across the broader supply chain**

- EU upfront commitment of **900 M€** between 2021-2017 (to be at least matched by industry)
- Close involvement of Member States for strategic guidance
- Dedicated Programme Office i.e., SNS JU Office



PETER STUCKMANN  
INTERIM EXECUTIVE DIRECTOR



CHIARA MAZZONE  
PROGRAMME OFFICER



ODYSSEAS PYROVOLAKIS  
PROGRAMME OFFICER



PAVLOS FOURTONGERAKIS  
PROGRAMME OFFICER



VANESSA VANWEESMAEL  
TEAM LEADER



NORA FELLER  
FINANCIAL ASSISTANT



SUSANNA TORRES  
FINANCIAL OFFICER



AXEL WOLFPERT  
ADMINISTRATIVE ASSISTANT

### Applications

- Seizing the “Trillion €” opportunity in network-based industrial sectors
- New types of applications



### Industrial leadership

- Starting 6G race: an opportunity to consolidate EU lead



### Societal, Sustainable Development Goals

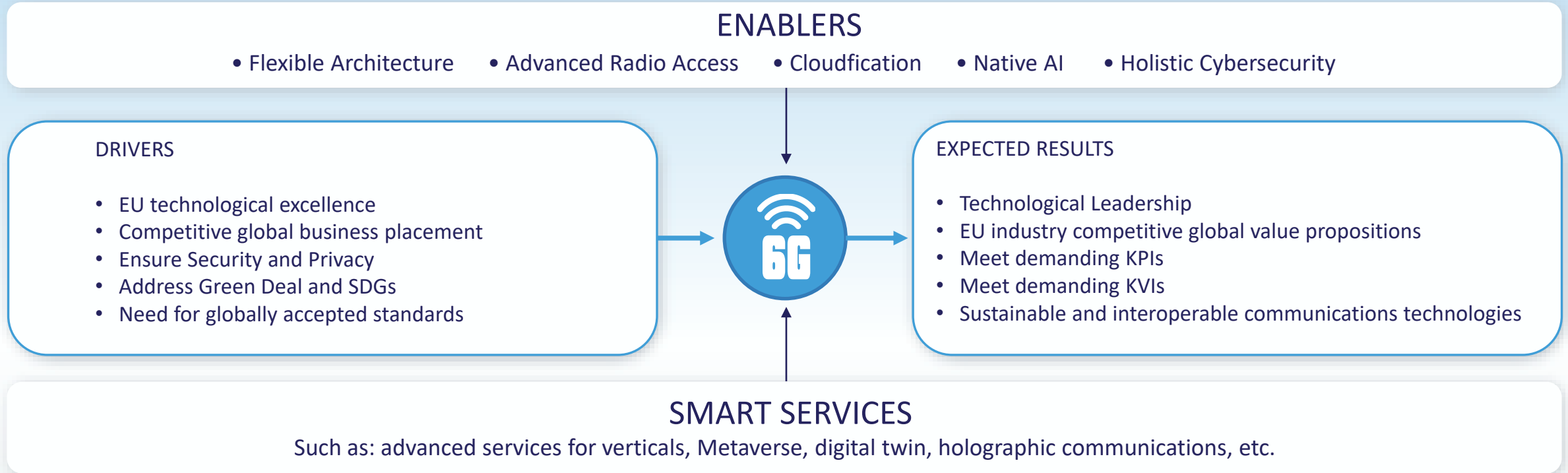
- Smart connectivity underpinning key societal issues



### Sovereignty/ Open Strategic Autonomy

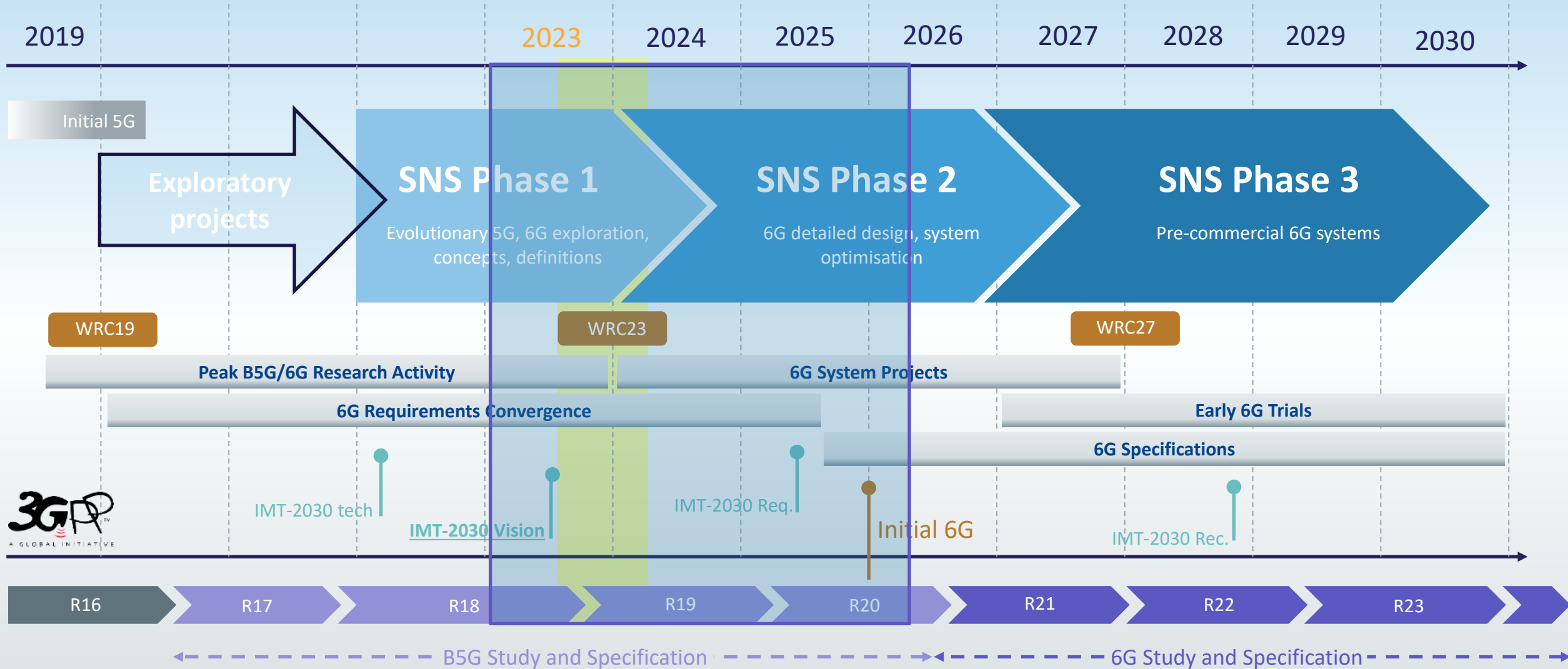
- Value chain approach for a comprehensive EU supply capacity
- Leverage to components to cloud services





## INTERNATIONAL COLLABORATION









### SNS CSA Projects





**5G AUTOMOTIVE ASSOCIATION**  
Automotive



**EUROPEAN CYBERSECURITY ORGANIZATION**  
Cybersecurity



**EUROPEAN INTELLIGENT TRANSPORTATION SYSTEMS AND SERVICES**  
Transportation



**PUBLIC SAFETY COMMUNICATION EUROPE**  
Public Safety



**NEW EUROPEAN MEDIA**  
Media



**EUROPEAN BROADCASTING UNION**  
Media



**5G ALLIANCE FOR CONNECTED INDUSTRY AND AUTOMATION**  
Smart Manufacturing



**ALLIANCE FOR INTERNET OF THINGS INNOVATIONS**  
Internet of Things



**EUROPEAN SPACE AGENCY**  
Space



**EUROPEAN TELECOMMUNICATIONS STANDARDS INSTITUTE**  
Standards



**TRANSCONTINUUM INITIATIVE**  
Digital Services



**NETWORLD EUROPE**  
Communications Networks & Services



**NEXT GENERATION MOBILE NETWORKS ALLIANCE**  
Network Infrastructure & Services



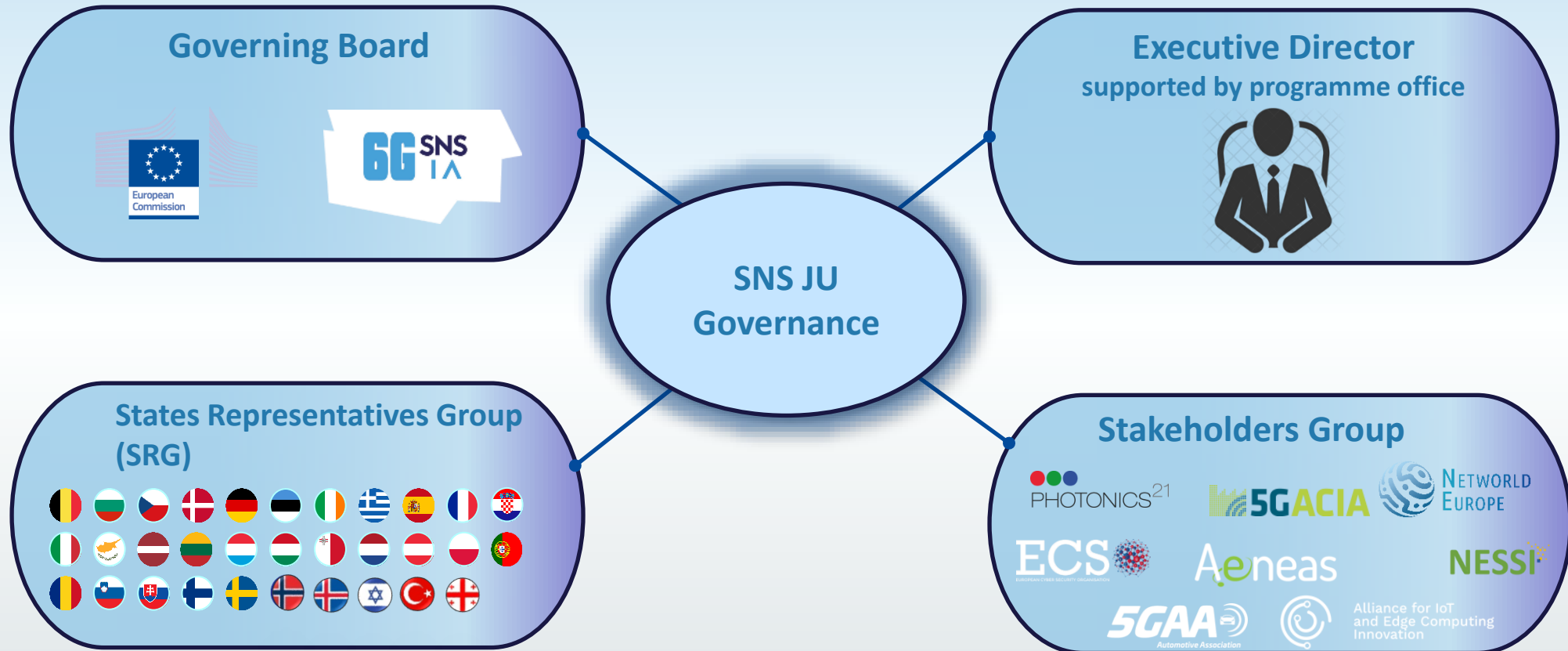
**ASSOCIATION FOR EUROPEAN NANO-ELECTRONICS ACTIVITIES**  
Micro Electronics



**SMART CONNECTIVITY DIGITAL INNOVATION HUB NETWORK**  
DIH



**CELTIC-NEXT (EUREKA CLUSTER)**  
ICT



Boosting 5G deployment in Europe



Boosting 5G deployment in Europe

### STRATEGIC OBJECTIVES



STREAM A (RIA):  
Smart communication  
components, systems and  
networks for 5G mid-term  
Evolution systems



New applications:  
"Internet of Sense",  
XR/VR, digital twins,  
holographic type  
communications



Reinforce Europe's  
technological  
leadership



Safeguard European  
values such as security  
and privacy



Enable a massive digital  
and green transitions  
towards low carbon  
footprint of vertical  
industries

Cost Effective Affordable  
Solutions

Stronger European SNS  
Economy



Evolution

**Stream A (RIA):** Smart communication components, systems and networks for 5G mid-term Evolution systems

**Radio:**

Building Blocks and Systems

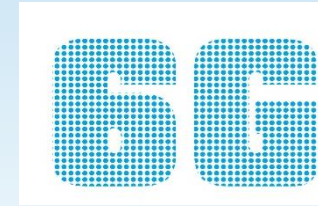
**System and Security:**

Secure Softwarisation  
Real-time/ Zero touch  
Services

**Architecture:**

Evolved Design  
Advanced Cloud/Edge  
Converged Optical Transport

**Stream D (IA):** Large Scale SNS Trials and Pilots with Verticals



**Stream B (RIA):** Research for radical technology advancement towards 6G

System  
Architecture

Wireless  
Communication  
Technology and  
Signal Processing

Communication  
Infrastructure  
Technologies

Cross Strand –Project(s)

Trustworthy and Secure  
Service Development and  
Provision

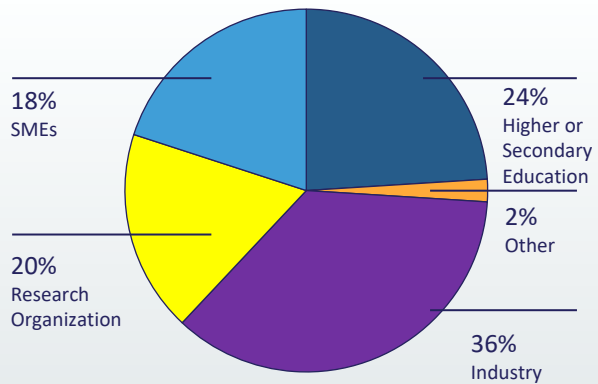
Transformative  
Technologies

**Stream C (IA):** SNS experimental infrastructures

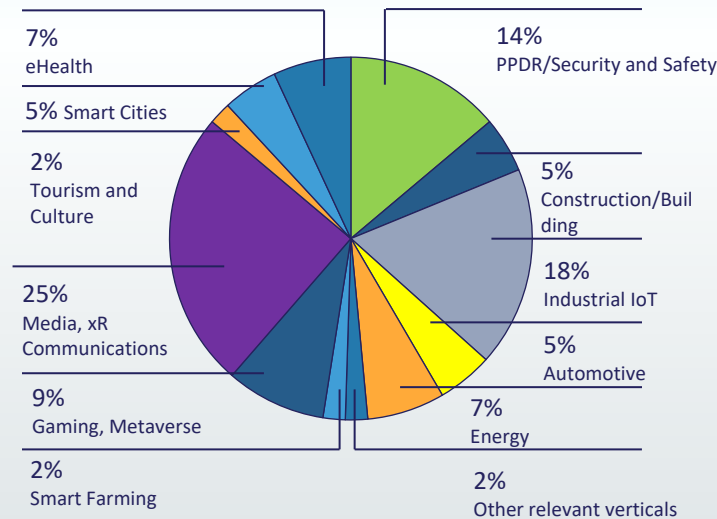


### PHASE 1 PROJECTS START: 1/1/2023

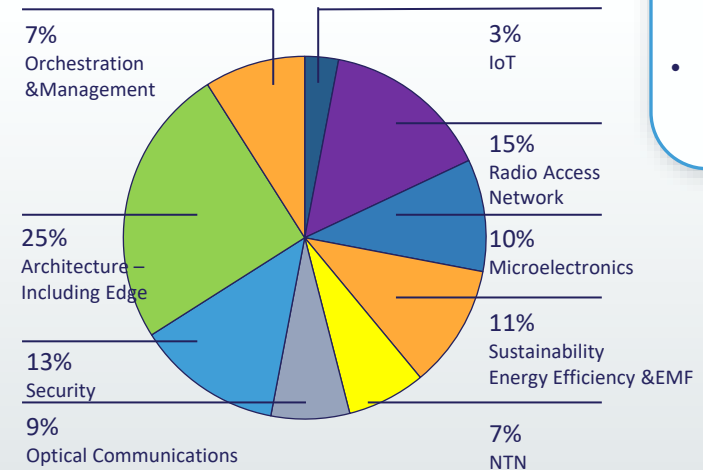
35 R&I Projects, 9 Key Technological Areas, 250 M€ Investments



BENEFICIARIES DISTRIBUTION



PHASE 1 SNS VERTICALS COVERAGE



PHASE 1 SNS TOPICS COVERAGE

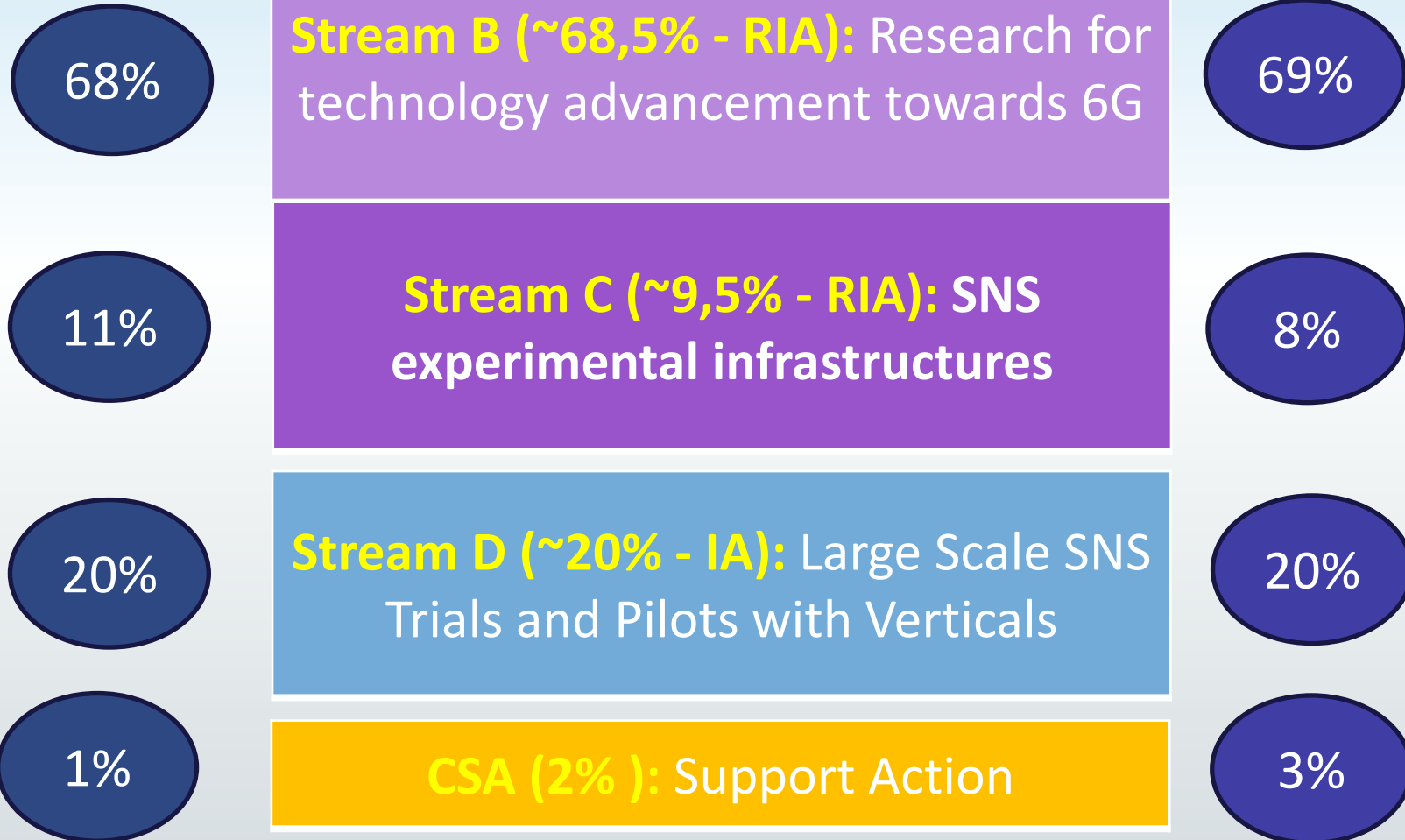
- 288 unique beneficiaries
- ~30% not 6G-IA members
- Covering 10+ different Vertical Industries

2023 EC Funded Budget: **132 M€**  
 2024 EC Funded Budget: **129 M€**

### 2023

### Cumulative Budget

### 2024



Stream B (89M€)

- Architecture
- Wireless Communications
- Infrastructure (Optical, Satellite, IoT, short range comm)
- Services and Security
- Sustainability lighthouse
- Collaboration with S. Korea, Japan (tbc)
- AI/ML for SNS

Stream C (10M€)

- Micro-electronics Lighthouse

Stream D (26M€)

- Two large scale trials – Common denominator  
Tangible sustainability results

CSA Project (4M€)

- Support the SNS project activities (WGs, Boards, Webinars,...) and EuCNC
- Support communication with the outside world (Partnerships, National Initiatives, International Collaboration, Verticals,...)



Press releases

European Commission | Shaping Europe's digital future

Home Policies Activities News Library Funding Calendar Consultations

Home > News & Views > Europe scales up 6G research investments and selects 35 new projects worth €250 million

DIGIBYTE | Publication 07 October 2022

### Europe scales up 6G research investments and selects 35 new projects worth €250 million

The Smart Networks and Services Joint Undertaking (SNS JU) has selected its first portfolio of 35 research and innovation projects worth €250 million to support the development of 5G and 6G technologies.

**SMART NETWORKS AND SERVICES CALL FOR PROPOSALS 2023 IS NOW OPEN**

Today the Smart Networks and Services Joint Undertaking (SNS JU) launches its second Call for proposals 2023 on the EU Funding and Technology Portal. The deadline for submissions is 25 April 2023. Participants can now submit their proposals online.

**Smart Networks and Services Call for Proposals 2023 is now OPEN!**

Smart Networks and Services Calendar

6GSNS

### Smart Networks and Services Joint Undertaking (SNS JU)

The European Smart Networks and Services Joint Undertaking aims to ensure industrial leadership for Europe in 5G and 6G.

Telecommunications · Brussels · 1,331 followers

Dr. Odysseas & 7 other connections work here · 9 employees

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Smart Networks and Services Joint Undertaking (SNS JU)

1,331 followers

We start today with the first call for proposals. Register here if not done!  
<https://lnkd.in/e/bzbx>

NEW

YouTube

LinkedIn

SNS brand and Projects communication guidelines... (to come)

6GSNS

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@6G\_SNS

The Smart Networks and Services Joint Undertaking supports industrial leadership for Europe in 5G and 6G and embraces the voice of EU projects in the field.

Europe smart-networks.europa.eu Joined February 2014

384 Following 9,049 Followers

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SNS Retweeted

### Launch of the SNS JU website

Read the blog post by Peter Stuckmann

<https://smart-networks.europa.eu/>

Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Phase	SNS JU Phase 1		SNS JU Phase 2		SNS JU Phase 3						
5G/6G	5G	6G	6G	6G							
Key Milestones	35 R&I Projects 9 Key Technological Areas 250M€ Investments	Evolutionary 5G 4G exploration, concepts and definitions	6G detailed design, system optimisation	Pre-commercial 6G systems							

Website

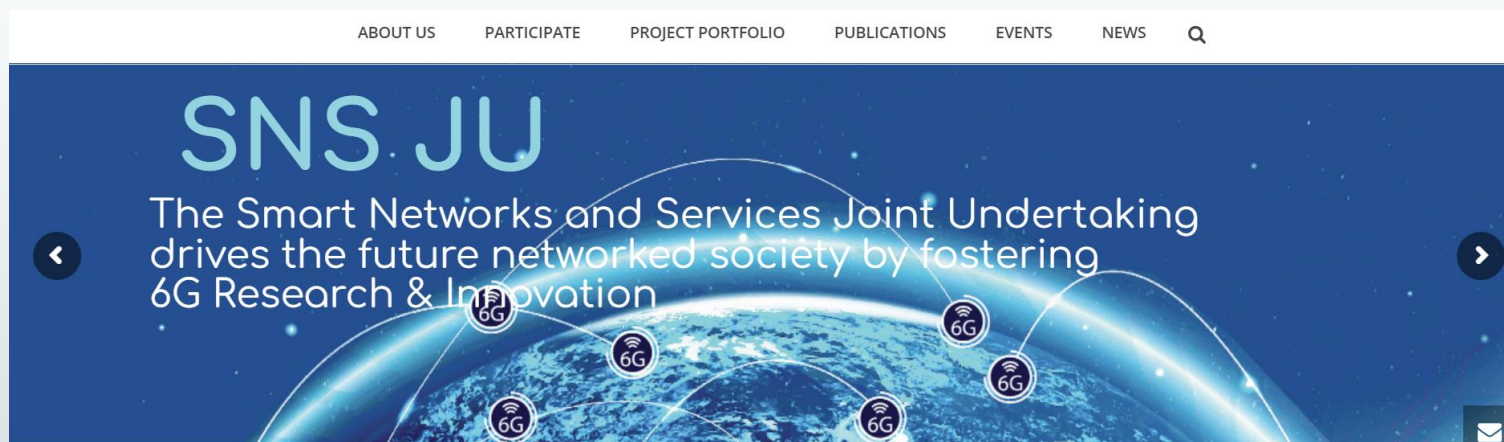


1. [5G Action Plan for Europe](#)
2. [European 5G Observatory](#)
3. [Cross-border corridors for Connected and Automated Mobility \(CAM\)](#)
4. [5G PPP](#)
5. [6G IA](#)
6. [SNS JU](#)
7. [Past events \[info sessions, webinars, other\]](#)
8. [Upcoming events](#)
9. [You Tube SNS JU channel](#)



# Thank you!

Visit SNS JU website: <https://smart-networks.europa.eu/>



Smart Networks and Services  
Joint Undertaking (SNS JU)



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