SMART NETWORKS AND SERVICES PARTNERSHIP - OVERVIEW -

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Smart Networks and Services Task Force

Networld2020 General Assembly, November 16, 2020

SNS PROGRAMME PROPOSAL

Draft proposal for a

European Partnership under Horizon Europe

Smart Networks and Services

Version 30 June 2020

Summary

The European communication networking and services sector is proposing the Smart Networks and Services Partnership to secure European leadership in the development and deployment of next generation network technologies and services, while accelerating European industry digitization. It will position Europe as a lead market and positively impact the citizens' quality of life, while boosting the European data economy and contributing to ensure European sovereignty in critical supply chains.

This document is supported by

- Proposal supported by different communities
  - representing significantly more than 1000 organisations from
    - Industry
    - SMEs
    - Research community (R&D centers and universities)
- Proposal is allocated to
  - Horizon Europe
    - cluster "Digital, Industry and Space"
    - area of Intervention "Next Generation Internet" as the center of gravity
    - with some links to other areas such as "Key Digital Technologies" and "Artificial Intelligence" in other Areas of Intervention
  - CEF – Connected Europe Facility, sub-program on 5G deployments at major European transport routes
- All partnership proposals published at
  - https://ec.europa.eu/info/horizon-europe-next-research-and-innovation-framework-programme/european-partnerships-horizon-europe_en
  - https://ec.europa.eu/info/sites/info/files/research_and_innovation/funding/documents/ec_rtd_he-partnership_smart-networks-services.pdf

Source: SNS proposal. June 30, 2020, https://ec.europa.eu/info/sites/info/files/research_and_innovation/funding/documents/ec_rtd_he-partnership_smart-networks-services.pdf

SNS PROGRAMME PROPOSAL: CHALLENGING AREAS AND EXPECTED IMPACT

SMART — NETWORKS & SERVICES

SNS Partnership Impact

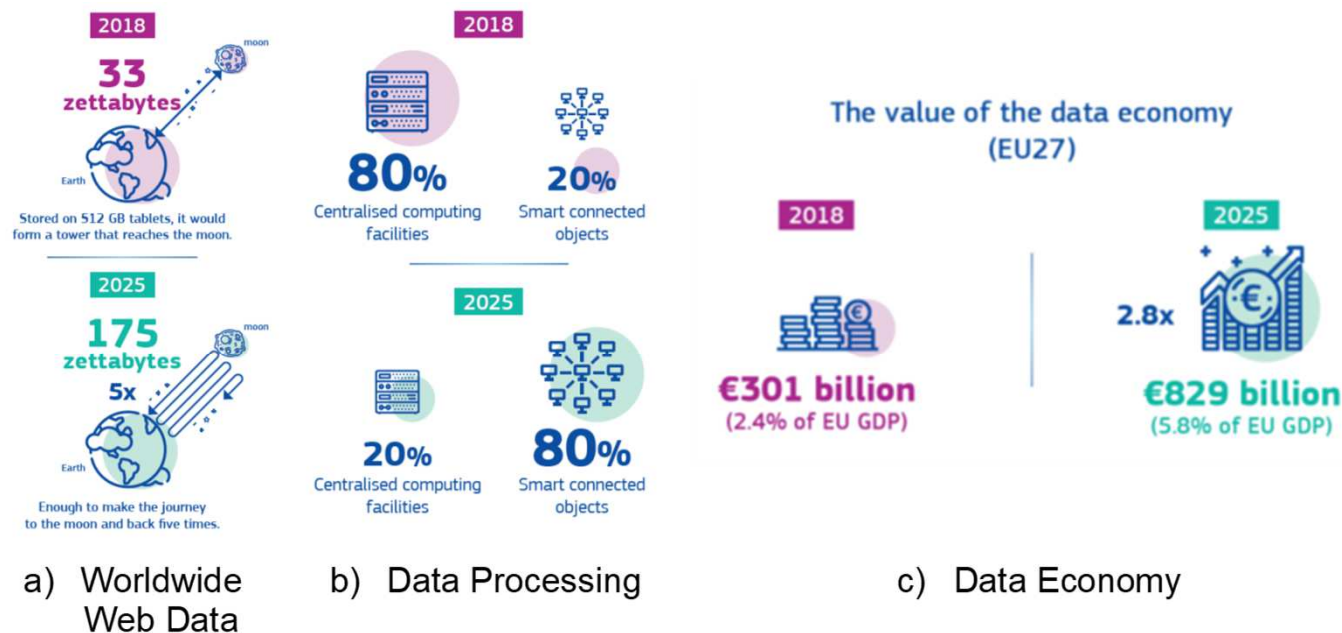|	
Full industrial digitization and support of vertical industries	Smart buildings, smart manufacturing, smart transportation, healthcare, connected and automated mobility, media & entertainment, smart agriculture, public safety, smart cities, …
Research, Development and Validation of B5G systems	Input to SDOs, improve KPIs, enhance overall architecture to support needed enablers, mid and long-term research activities over all network domains, services and devices
Integrate new Technologies and support emerging applications	- AI & ML, HPC, cybersecurity, IoT - Holographic media, multi-sense networks, time engineered applications, critical infrastructure support applications
Business Aspects – Europe's share on the global market	- Retain Europe's completive edge in telecommunications - Strengthen Europe's vertical industries - Unleash innovation and economic opportunities
Societal and Political Aspects	- Support Green Deal objectives - Enable the achievement o SDGs goals via ICT solutions - Target digital autonomy and European sovereignty - Cater for social inclusiveness and create high-value jobs.

OBJECTIVES
GENERAL OBJECTIVE

- A key goal of the SNS Partnership is

  - to define and implement the research, innovation and deployment roadmaps that will enable Europe to lead in the creation of the next generation of smart network technologies and services.

  - These will be designed and implemented in such a way that European values like security and privacy are safeguarded and European technological sovereignty is further strengthened.

  - The Partnership will also focus on the full digitization of European society including vertical industries and public administration.

  - Thereby, the SNS Partnership targets to have a positive impact on the quality of life for European citizens and boost the European data economy.

OBJECTIVE 1 – FULL INDUSTRY DIGITIZATION AND SUPPORT OF VERTICAL INDUSTRIES

- To provide and validate (in trials and pilots) the enablers and solutions for full digitization of the European vertical industries in order to improve the business operation.


2018
33 zettabytes
Earth
Stored on 512 GB tablets, it would form a tower that reaches the moon.

2025
175 zettabytes
5x
Earth
Enough to make the journey to the moon and back five times.

a) Worldwide Web Data

2018
80% Centralised computing facilities
20% Smart connected objects

2025
20% Centralised computing facilities
80% Smart connected objects

b) Data Processing

The value of the data economy (EU27)

2018
€301 billion (2.4% of EU GDP)

2025
2.8x
€829 billion (5.8% of EU GDP)

c) Data Economy

OBJECTIVE 2 – SOCIETAL AND POLITICAL ASPECTS

SMART — NETWORKS & SERVICES

- To foster the development and adoption of technologies and solutions that will help to address societal challenges that can directly or indirectly contribute to

  1. Achieve EU Green Deal's targets and United Nations SDGs' goals.
  2. Enable Europe to reach digital autonomy and technology sovereignty.
  3. Ensure that digitization of our society will be done in a secure way to retain Europe's leading position in trust and privacy.
  4. Create high-skill jobs and social inclusive technologies.
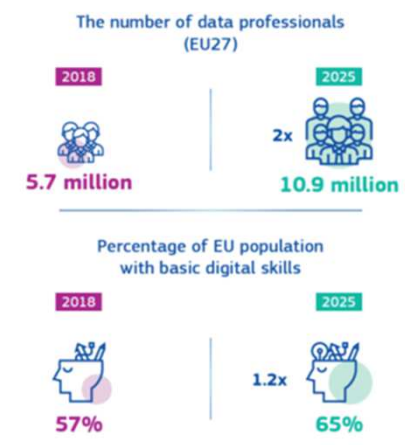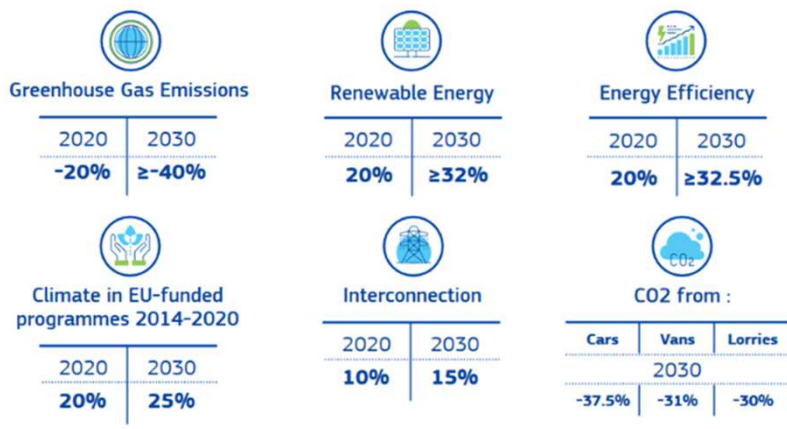
OBJECTIVE 3 – BUSINESS ASPECTS – EUROPE'S SHARE ON THE GLOBAL MARKET
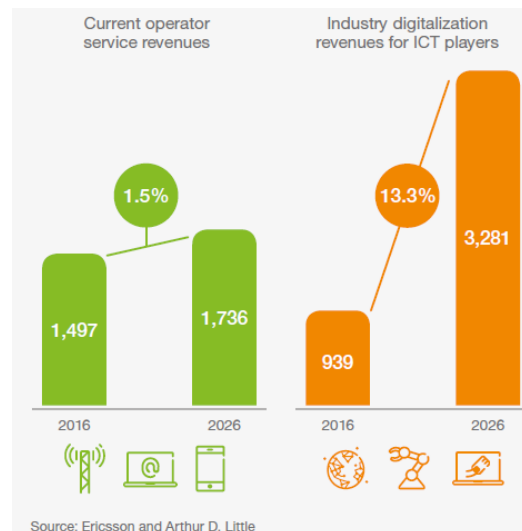
- To ensure European leadership in the ICT sector and mobilize cross-disciplinary private sector forces to build solutions that will improve the operation of European vertical industries.

Figure 15
Source: GSMA Intelligence
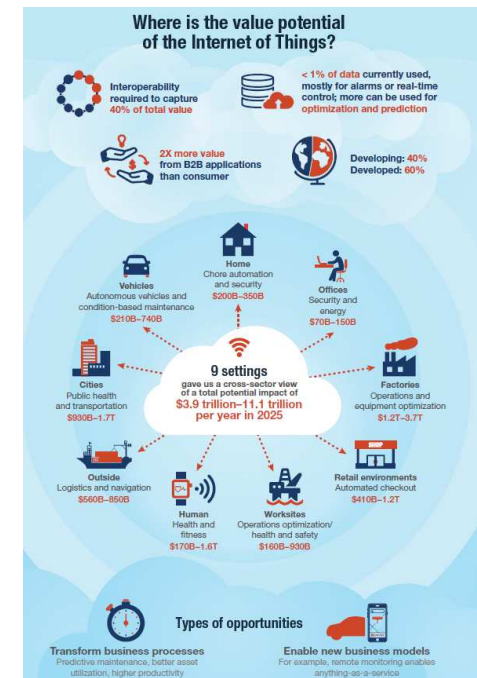
Outlook to 2020

(€ billion, % of GDP)
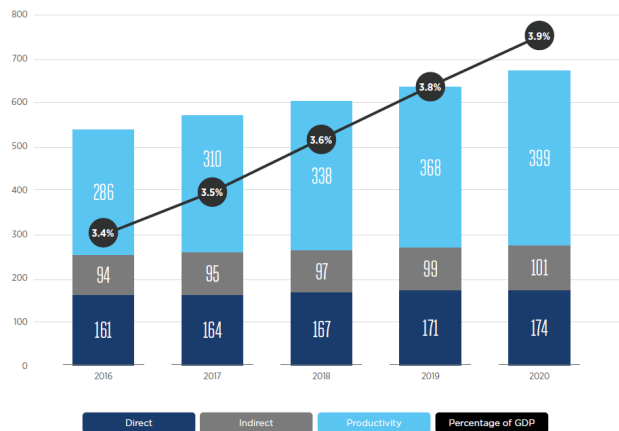
Total (direct, indirect and productivity)
contribution to GDP (€ billion, % 2016 GDP)

Revenue forecast (CAGR 2016 – 2026, US-$ billion)

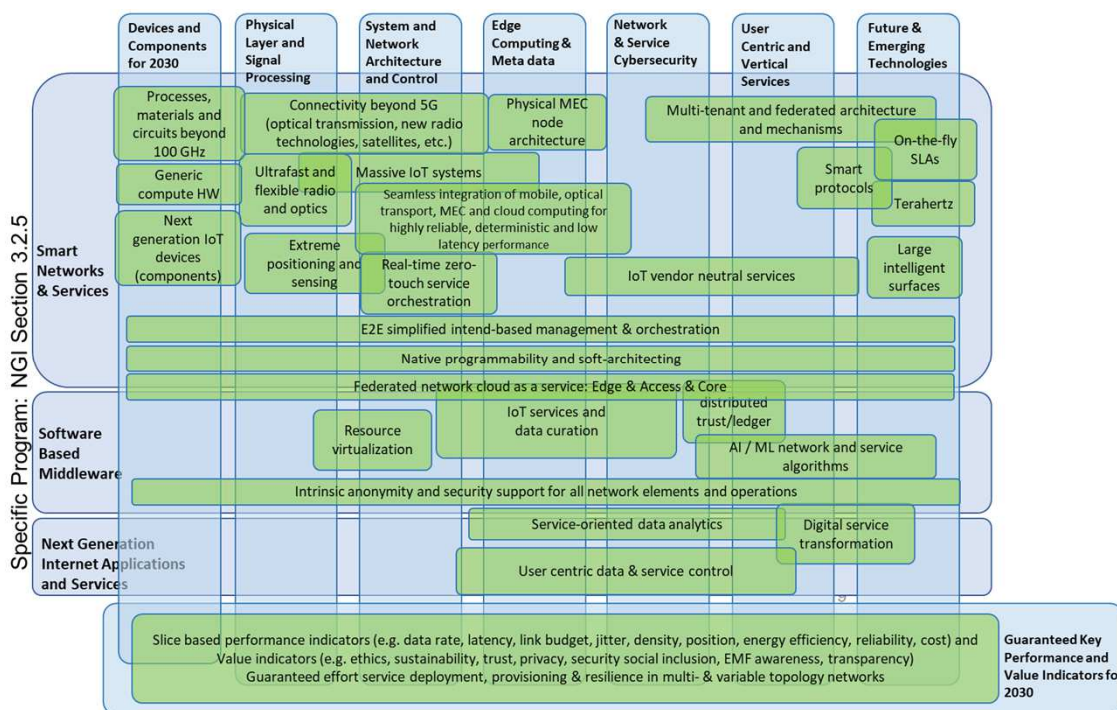Where is the value potential of the Internet of Things?

Source: SNS proposal. June 30, 2020, https://ec.europa.eu/info/sites/info/files/research_and_innovation/funding/documents/ec_rtd_he-partnership_smart-networks-services.pdf.
GSMA The Mobile economy report 2017, https://www.gsmaintelligence.com/research/?file=89a59299ac2f37508b252124726a1139&download.
Ericsson: The 5G Business Potential. 2017, https://www.ericsson.com/assets/local/news-and-events/events/2017/mwcs-2017/topic-3_ericsson_5g_business_potential.pdf.
McKinsey & Company: The Internet of Things: Mapping the value beyond the hype. McKinsey Global Institute, June 2015.
https://www.mckinsey.de/files/unlocking_the_potential_of_the_internet_of_things_full_report.pdf.

OBJECTIVE 4 – B5G SYSTEMS DESIGN AND SUPPORT OF EMERGING APPLICATIONS

- To research, develop and validate the next generation of telecommunications networks and support emerging services, while enabling networks to efficiently support any service to be provisioned under all relevant environments.

Strategic Research and Innovation Agenda
(published at Networld2020 ETP website):
https://bscw.5g-ppp.eu/pub/bscw.cgi/d367342/Networld2020%20SRIA%202020%20Final%20Version%202.2%20.pdf
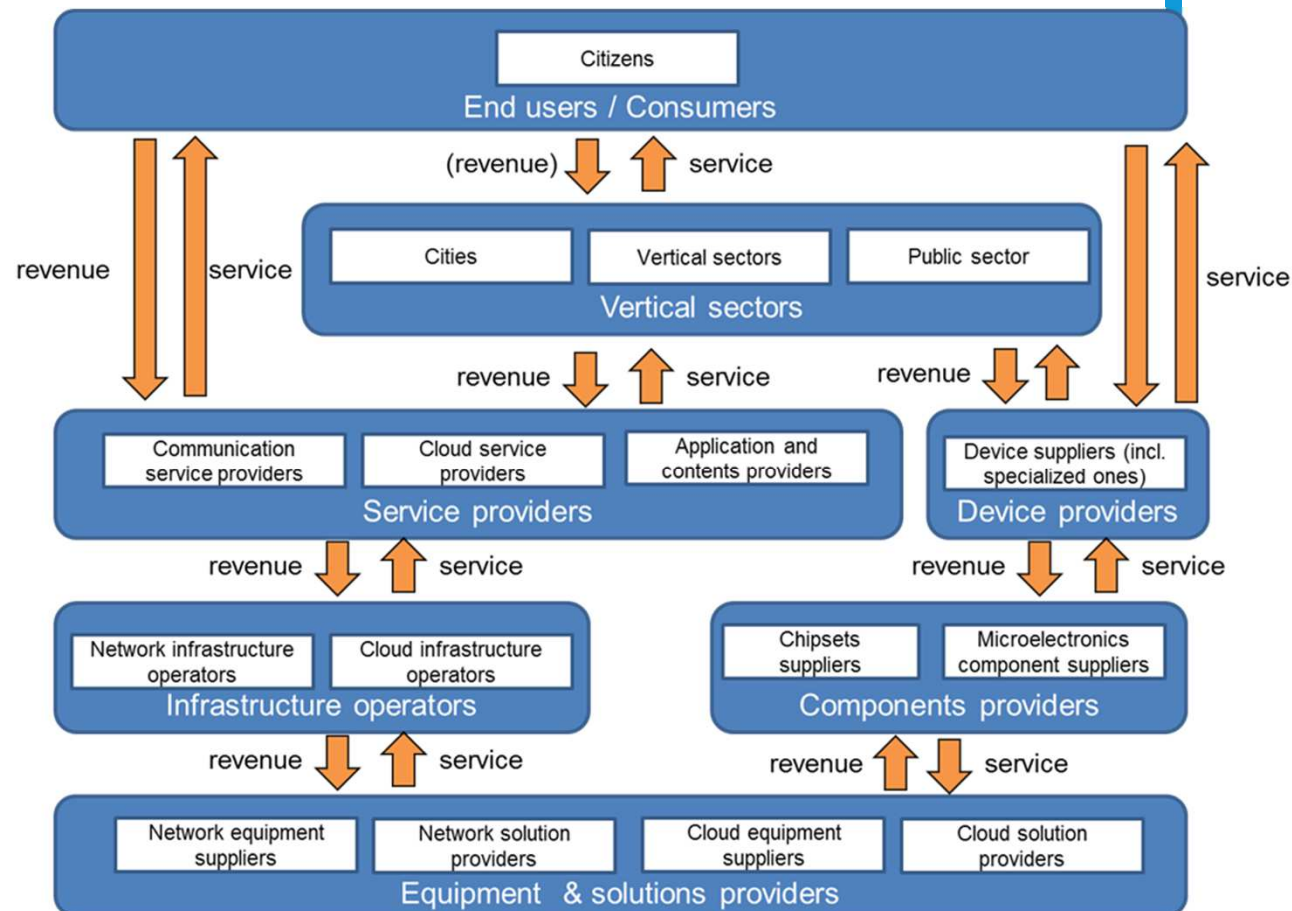

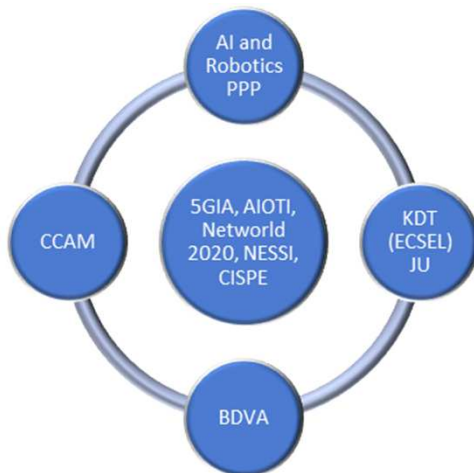Adobe Acrobat Document

SNS Annex:

Adobe Acrobat Document

Source: SNS proposal. June 30, 2020, https://ec.europa.eu/info/sites/info/files/research_and_innovation/funding/documents/ec_rtd_he-partnership_smart-networks-services.pdf

VALUE-CHAIN APPROACH AND INVOLVED STAKEHOLDERS

STAKEHOLDER INVOLVEMENT

Different tiers of stakeholder involvement

SNS stakeholder and their link to Partnership's objectives

SNS PROGRAMME PROPOSAL: SYNERGIES
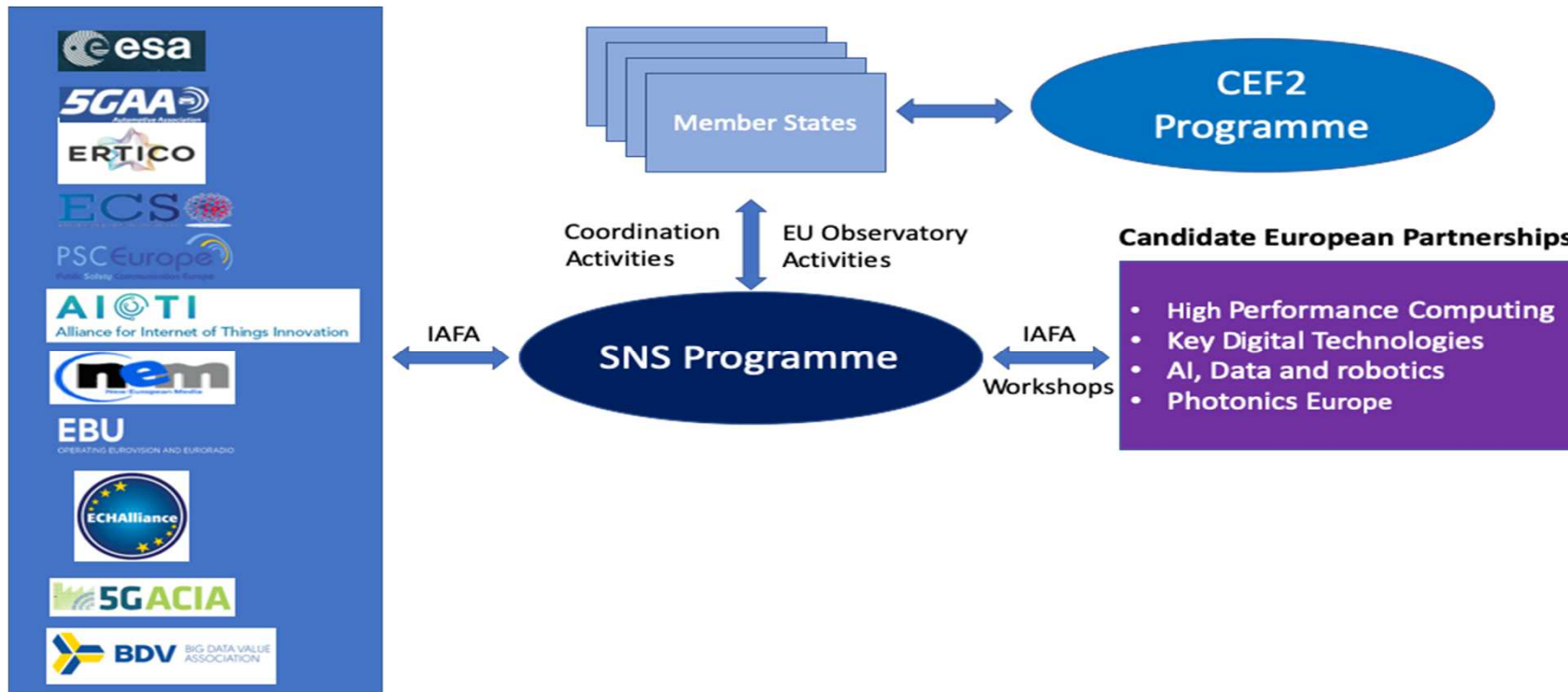
Impact Assessment and Facilitation Actions" (IAFA) that are research-based activities and that ensure relevance and impact. focus on interaction with adjacent Partnerships, initiatives and relevant Associations to ensure relevance and synergies in both directions
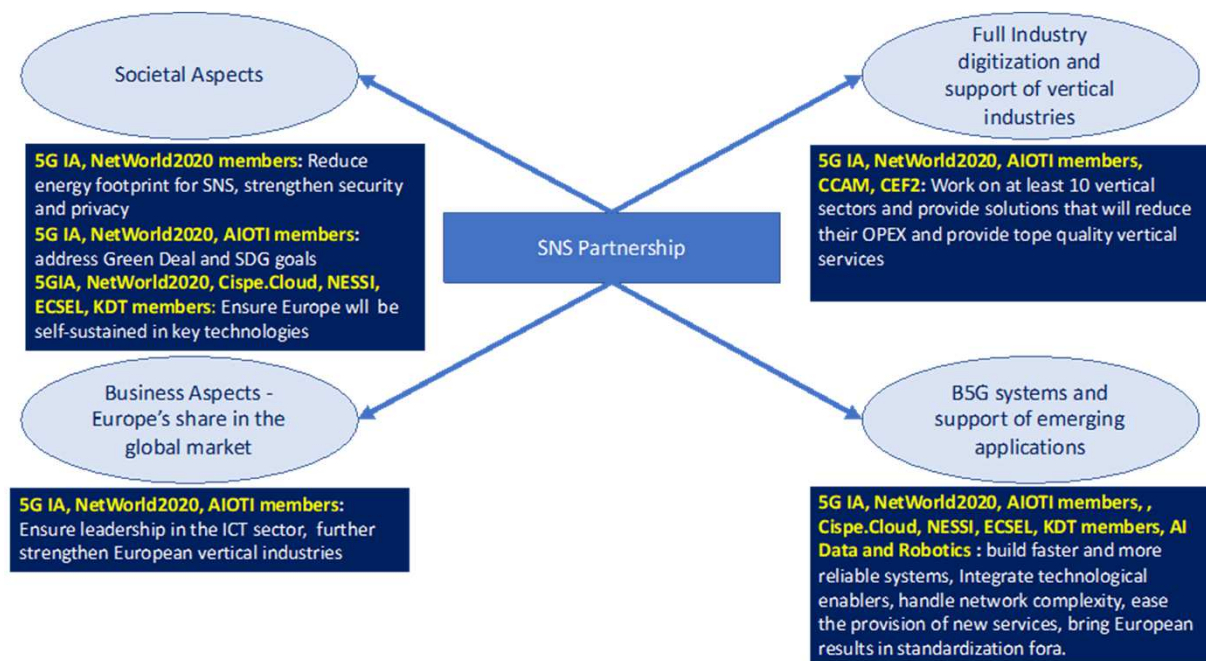
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SNS PROGRAMME
MAIN ACTIVITY STREAMS AND PHASES
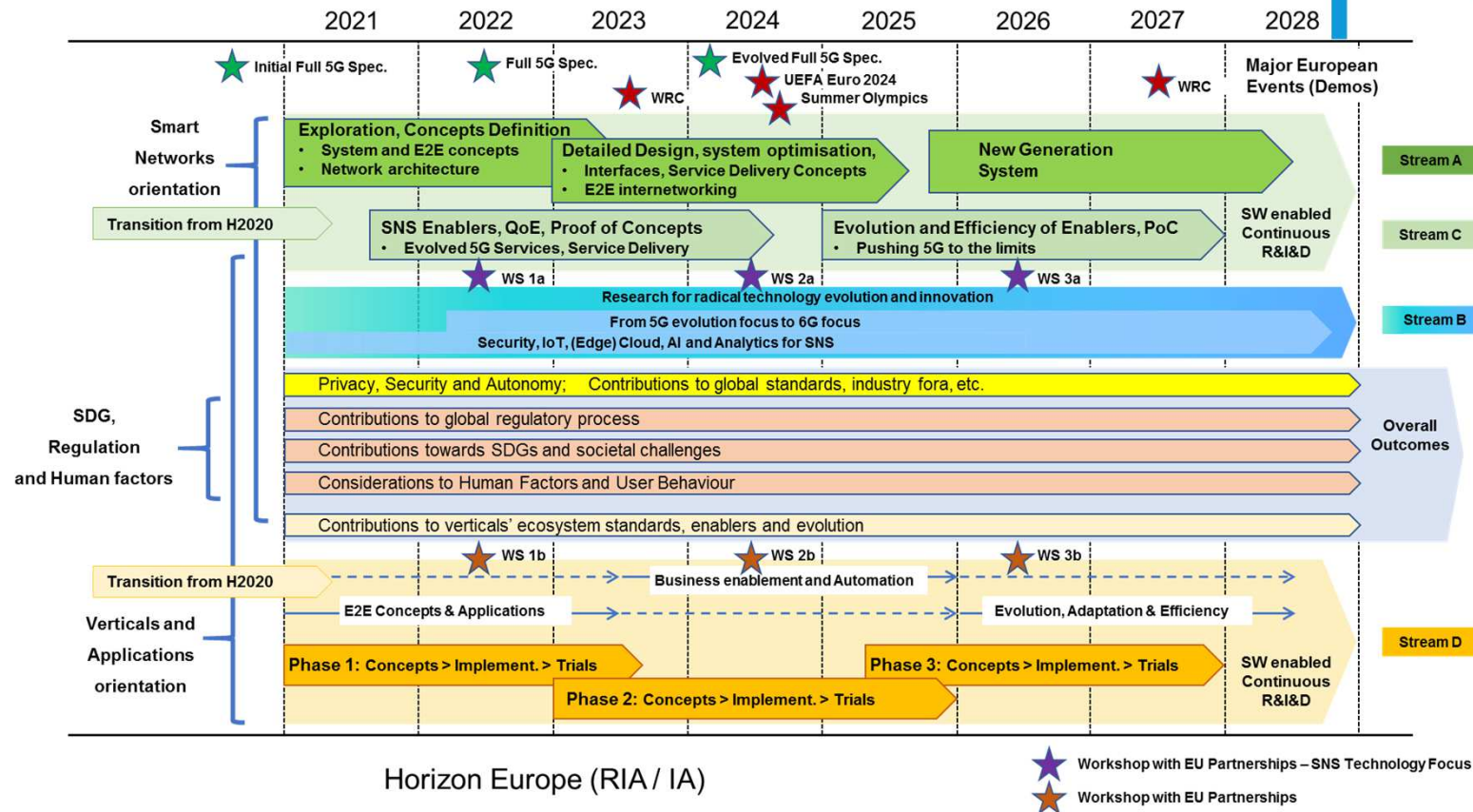
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STATUS OF SNS PARTNERSHIP AND TIMING

SMART — NETWORKS & SERVICES

We are here

Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022

May 2020: EC Regulatory Scrutiny Board supported SNS

Private side is expected to submit a „general letter of commitment" to EC by October 15,2020

June 30, 2020: SNS proposal published on EC website

After Council adoption private side is expected to submit a "confirmation letter" to EC

Political agreement achieved between EU Commission and Member States on Institutionalised Partnerships

EC is preparing Basic Act (Regulation) for adoption by College of Commissioners

Council adoption in Q1/Q2 2021

- First SNS Work Programme available after Council adoption
- First SNS call for proposals after Council adoption

First SNS projects will start in 2022

All proposed Institutionalised Partnerships follow a single legislative process and will be adopted as a packege

Until now no agreement on next MFF (Multi-annual Financial Framework) budget for 2021 – 2027 agreed between EC, Member States and EU Parliament