BEREC Workshop on Open RAN
Regulator and policy maker roles and responsibilities
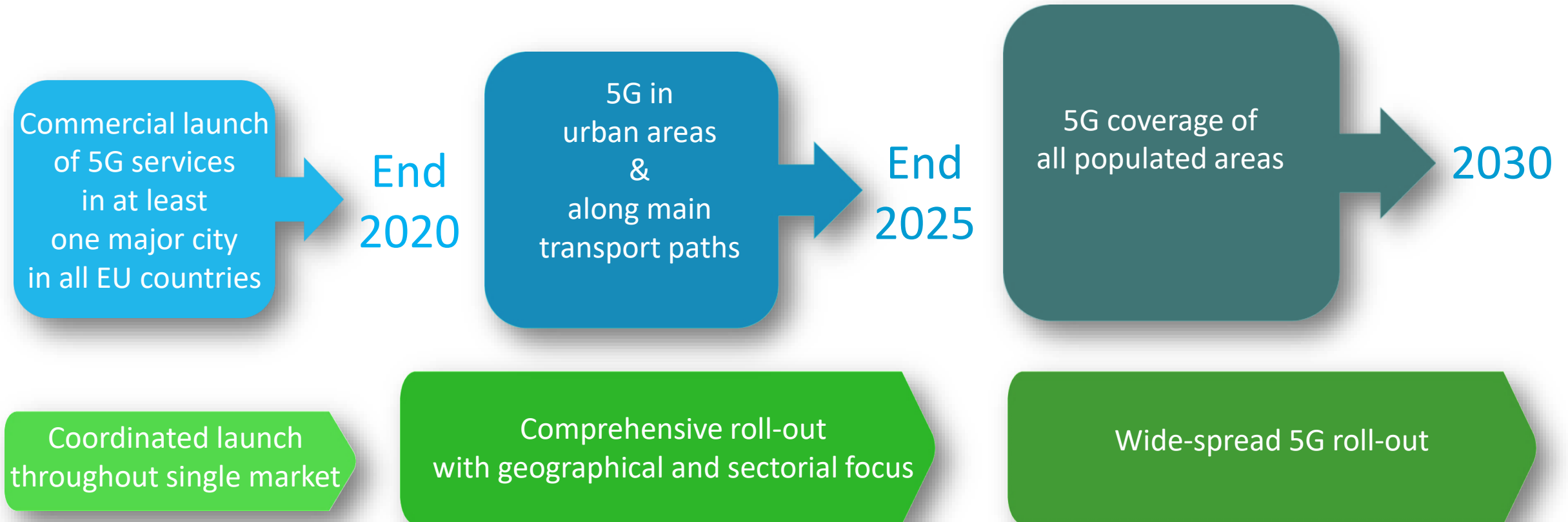
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5G targets in the digital decade

Commercial launch of 5G services in at least one major city in all EU countries

End 2020

5G in urban areas & along main transport paths

End 2025

5G coverage of all populated areas

2030

Coordinated launch throughout single market

Comprehensive roll-out with geographical and sectorial focus

Wide-spread 5G roll-out

European Commission

Next Generation EU

26% (EUR 117 bn) of total allocation[1] to **digital** measures

20%

Key reforms

- Modernising public services and administrations
- Removing existing barriers to 5G
- Mainstreaming digital skills acquisition in school curricula

Key investments

- Fixed and 5G connectivity infrastructure (EUR 13bn)
- Digitalisation of public administration including services (EUR 43bn)
- Digitalisation of businesses, in particular SMEs (EUR 24bn)
- Digital skills (EUR 20bn)
- R&I and deployment of advanced technologies (EUR 18bn)
- Cybersecurity

Multi-Country Projects

- Microelectronics
- Cloud
- 5G corridors
- Very high capacity submarine cables

[1] Based on 22 adopted RRPs equivalent to EUR 445bn

European Commission

Smart Networks and Services Strategic areas

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**

Partnership: a response to the magnitude of the challenges

European Commission

Commission Study on Supply Market Trends

- A common Union approach towards accompanying Open RAN in the context of cyber-security, competitiveness, and innovation

- Enable innovation in the field of Open RAN to the benefit of operators, suppliers, and new European players in particular SMEs

- Commission study (9/2020-7/2021, final report [here](#)):

  - Baseline: status of the European and global 4G and 5G supply markets in 2020

  - Existing and expected market trends that could be shaped by the technological and strategic developments in this field

  - Possible policy measures for European and national authorities to address the risks and opportunities of such developments (stakeholder engagement, funding opportunities, standardisation and certification, regulatory measures)

European Commission

NIS report on Open RAN Cybersecurity

- **Continuity of Toolbox approach**, ambition to maintain a **coordinated approach** on 5G cybersecurity

- Content of report:

  o **Security assessment of Open RAN**

    ➢ Impact of Open RAN on identified security risks (EU Coordinated risk assessment)

    ➢ New security risks of Open RAN

    ➢ Security opportunities of Open RAN

  o **Guidance on Toolbox implementation for Open RAN deployments**

- **Main conclusions:**

  - Importance of technology neutral regulation to foster competition

  - Address potential dependencies or lack of diversity across the whole communication value chain for the diversification of supply

  - Cautious approach to moving towards this new architecture is recommended

International cooperation

- Broad range: Multilateral cooperation, e.g. 5G Global events, Trade and Technology Council EU-US, Digital Partnerships (e.g. Japan)

- Fostering security, diversity, interoperability, and resilience across the ICTS supply chain

- Discuss market trends towards open, interoperable approaches alongside the continued importance of trusted, established

- Take a principles-based, technology-neutral approach to ensure competitiveness and strengthen innovation and technology development in general

- Contribute to enhancing security, performance, energy efficiency, and interoperability of such open, interoperable approaches through research and development funding and support for global and transparent standards development in line with the World Trade Organization Agreement on Technical Barriers to Trade

- Address all of the layers and elements of the ICTS supply chain, from the physical to application layers, from microelectronics components to networks to cloud infrastructures and services

European Commission

6G R&I in Europe has started

5G PPP bridging phase

- The Hexa-X flagship + 9 6G exploratory projects = 65 M€

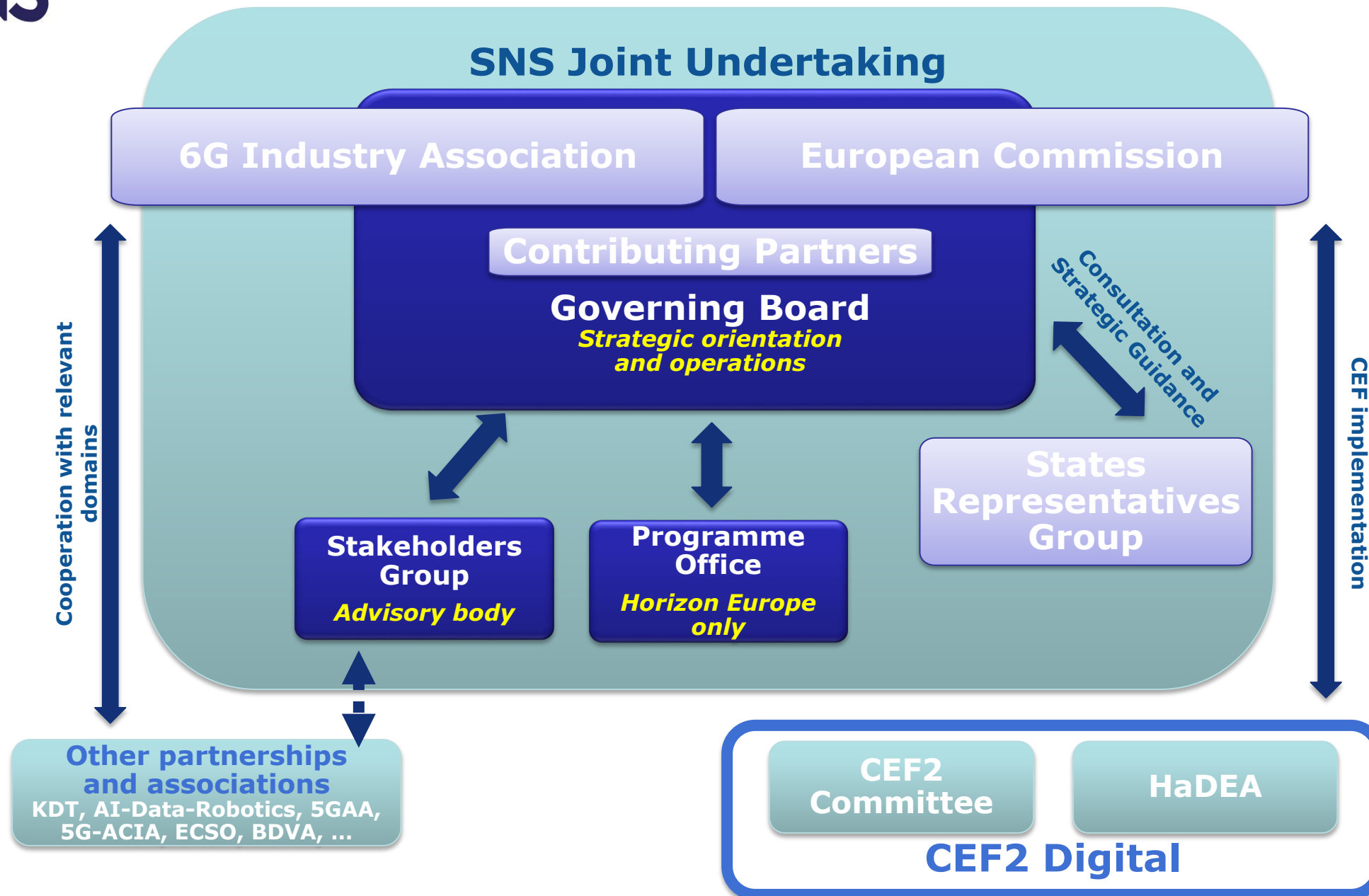**Accelerating 5G Deployment Connecting Europe Facility (CEF2)**

6GSNS

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

- Tasks set by Council Regulation (2021/2085)
- EU upfront commitment of **€900M** between 2021-2017 (to be at least matched by industry)
- Close involvement of Member States for strategic guidance
- Dedicated Programme Office

Governance

SNS Work Programme 2021-2022

Evolution

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

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

Radio:
Building Blocks and Systems

Architecture:
Evolved Design
Advanced Cloud/Edge
Converged Optical Transport

System and Security:
Secure Softwarisation
Real-time/ Zero touch Services

System Architecture

Wireless Communication Technology and Signal Processing

Cross Strand –Project(s)

Trustworthy and Secure Service Development and Provision

Communication Infrastructure Technologies

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

Stream C (RIA): SNS experimental infrastructures

Horizontal Issues: Sustainability, Access, Affordability…
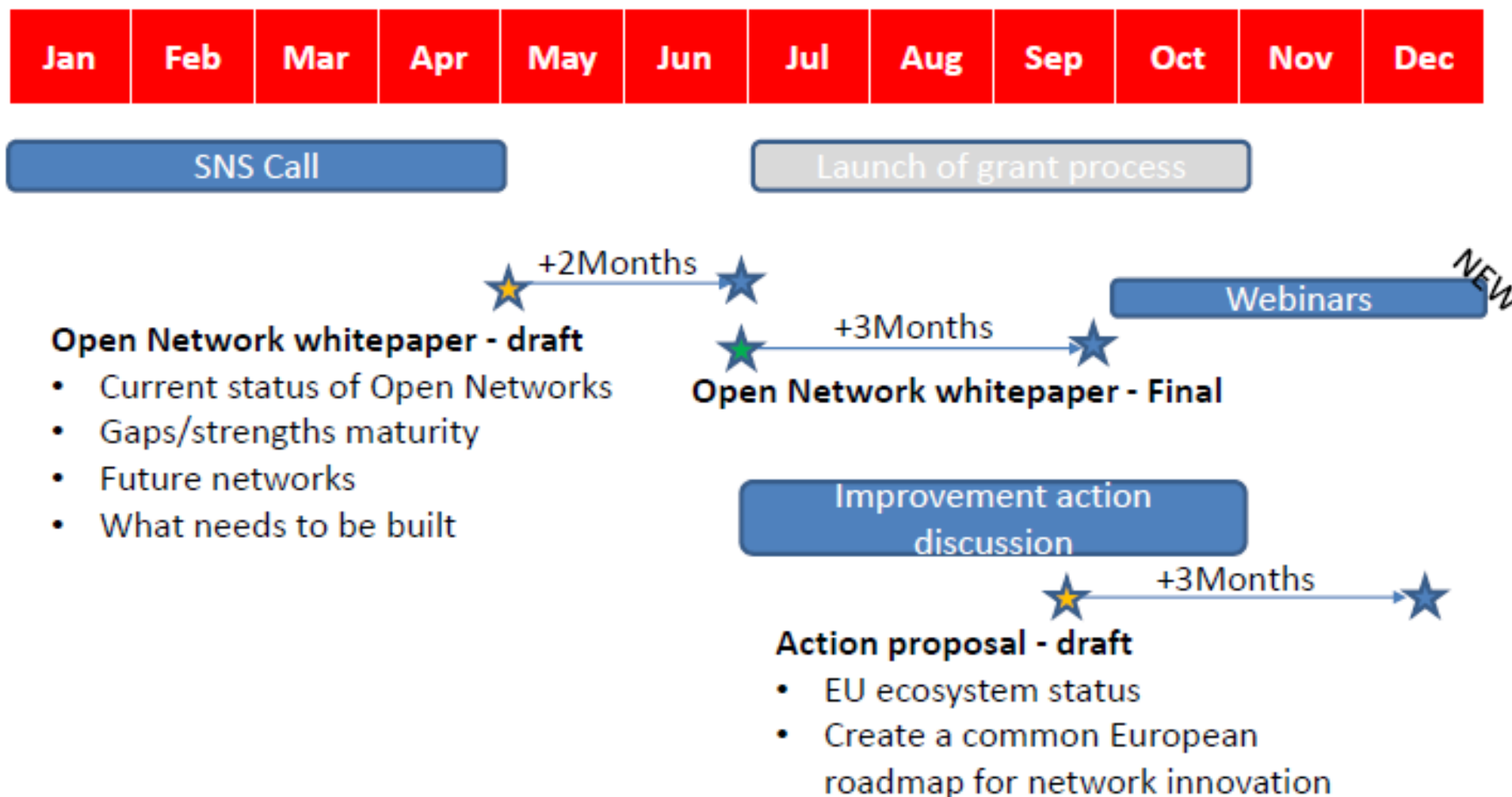
European Commission

Open SNS Working Group

Overall purpose:

promote and support the evaluation, adoption, deployment, and evolution of open solutions for 5G and beyond 5G/6G networks.

Main Objectives

- Influence the definition of the technical work programme to evolve the maturity of open solutions.

- Support the evaluation and the adoption of disaggregated solutions in legacy and future networks to enable a true multi-vendor environment.

- Promote a common understanding of standards and architectures and maturity status.

- Promote actions for the formation of a dynamic European Open ecosystem.

- Engage with European Security Framework to assure the Open based networks comply with the security standards defined by EU.

Open SNS WG: 2022 Time Line

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

SNS Call

Launch of grant process

+2Months

Webinars

NEW

+3Months

Open Network whitepaper - draft

- Current status of Open Networks
- Gaps/strengths maturity
- Future networks
- What needs to be built

Open Network whitepaper - Final

Improvement action discussion

+3Months

Action proposal - draft

- EU ecosystem status
- Create a common European roadmap for network innovation

European Commission

Thank you!

https://digital-strategy.ec.europa.eu/en/policies/5G