Towards 6G in Europe

Session International views on 6G

10 November 2021

Bernard Barani

Deputy Head of Unit E1, Future Connectivity Systems

European Commission – DG CONNECT

Beyond 5G/6G: Global Context

	B5G/6G Initiative
	- “Secure 5G & Beyond Act” March 2020 - DoD Testbed programme, $ 600 million - Next-G initiative, industry federation (ATIS); RINGS (NSF) - Open RAN Drive, $2Bn
	- MIC “Roadmap towards 6G”, June 2020, B5G Promotion Consortium - METI support - $300+200million - Open RAN Drive, $2Bn
	- MSIT 6G programme, September 2020, 5G Forum - ≈ $200 million public support
	- MIIT 6G programme, creation of IMT 2030 Promotion committee (2019) - Multi € Billion until 2035, including industrialisation
	- **6G Smart Networks and Services Partnership proposal**: **€ 900 millions / 6 yrs** – **Drivers:** *Strategic autonomy, Green Deal, Cybersecurity* - **Member States Initiatives: Finland, Germany, France, Austria ..**

Factors of change

- Vertical industries growing presence in connectivity, new « convergence wave »
- Business models beyond operators
- IT industry expansion, Software as a key technology, disaggregation..
- New approach to security;
- Autonomy ➔ value in micro electronic components + Cloud
- Human centricity importance, Sustainable Development Goals
- ……
- ➔ *Potential impact on stakeholders, industrial landscape, alliances and collaboration, standardisation, deployment stimulation models*

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6 Early Motivations for 6G

New classes of applications

XR, Holographic coms, Digital twins

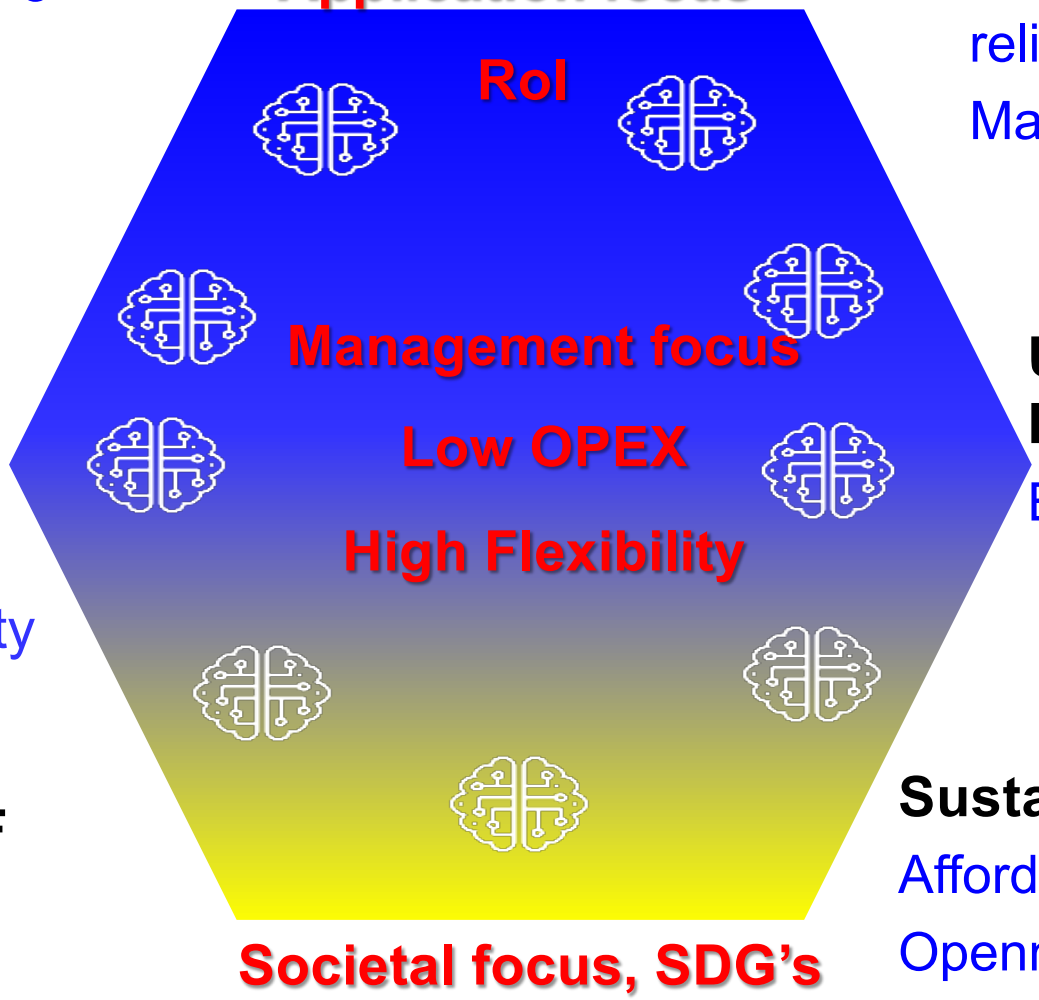
Internet of Senses

Deterministic E2E

Vertical use cases beyond 5G

Extending 5G KPI's in speed, latency, reliability, density, positioning

Massive M2M



Automated & autonomous Infra/Service Mgt

-Programmability

-Intelligence connectivity

Ultra high security/trust/ Privacy

E2E, From component to application

Ultra low energy/EMF

-connectivity

-use cases

Sustainable Development goals

Affordability, Accessibility

Openness..

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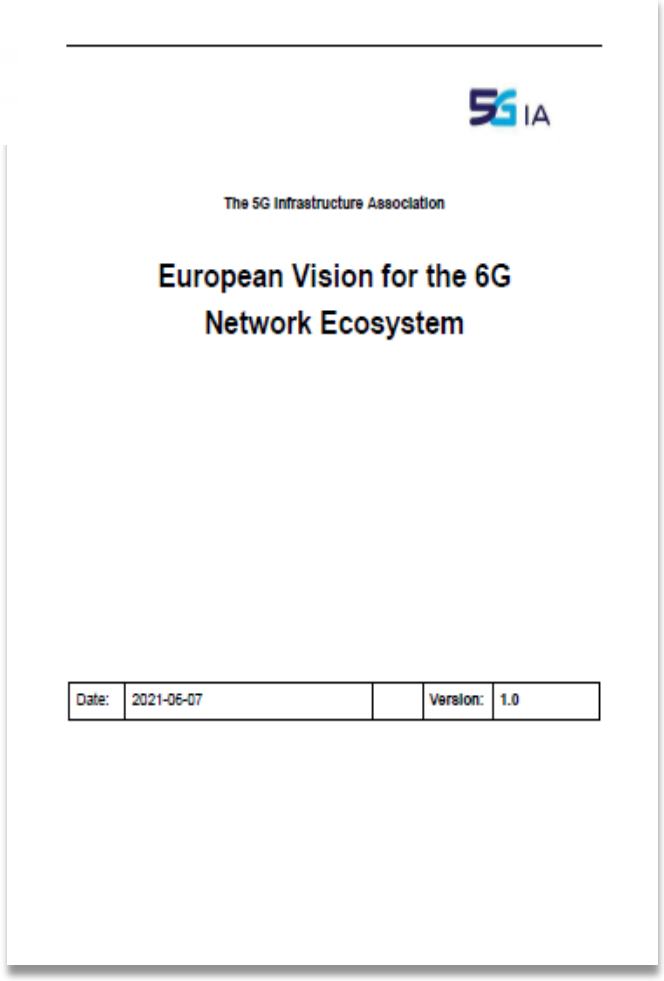
Vision

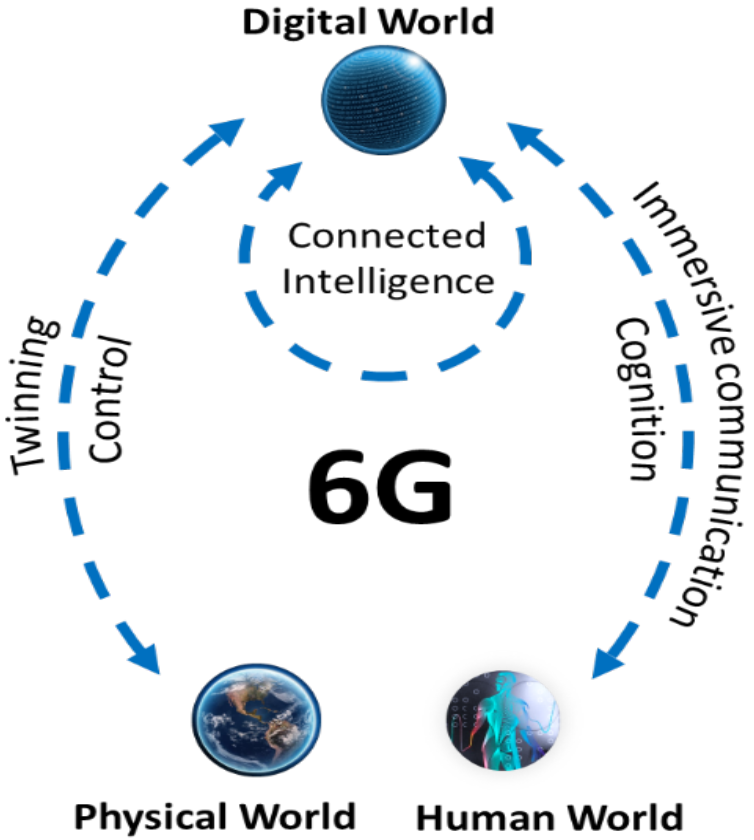
Hexa-X
RISE-6G
REINDEER
6G BRAINS
AI@EDGE
DAEMON
MARSAL
DEDICAT 6G
TeraFlow


5G IA

The 5G Infrastructure Association

European Vision for the 6G Network Ecosystem

Date:	2021-06-07		Version:	1.0



Massive Digitisation: representation

+

Connected Intelligence: Awareness, RT status

+

Network Compute Fabric Decision, action

- https://5g-ppp.eu/5g-ppp-phase-3-6-projects/
- https://hexa-x.eu/deliverables/
- https://5g-ppp.eu/wp-content/uploads/2021/06/WhitePaper-6G-Europe.pdf

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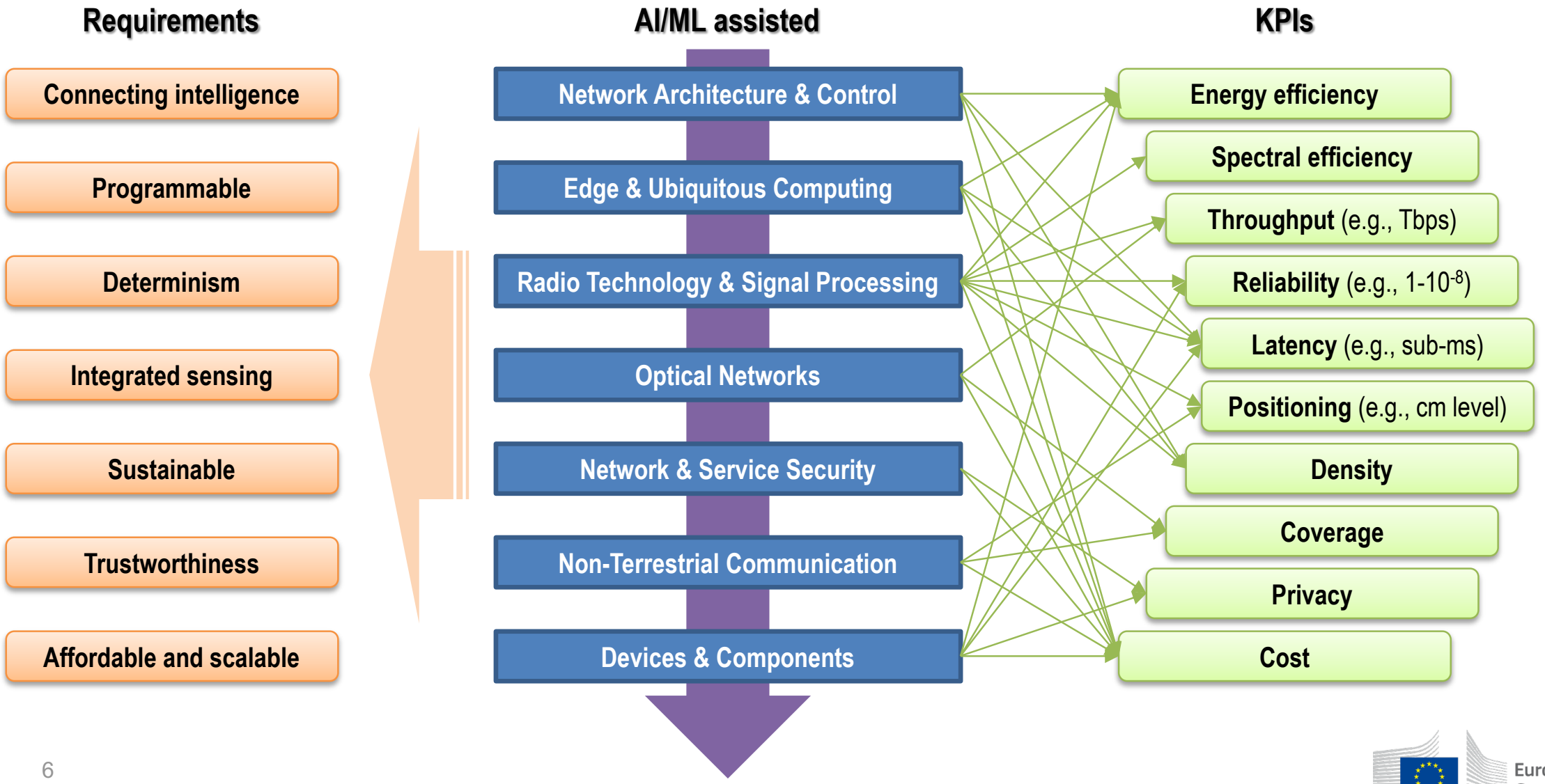
Technological aspects



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Technology areas with strong impact on different 6G requirements and KPIs.

Towards a 6G European Initiative

5G PPP - Bridging phase

1 flagship + 8 6G exploratory projects = 60 M€

Strategic Autonomy in critical technology areas

European Green Deal

Full digitalisation of the Industry

EU Industry global competitiveness

Industry 6G Partnership Proposal-Smart Networks & Services Joint Undertaking

https://ec.europa.eu/info/files/european-partnership-smart-networks-and-services_en

5G IA INFRASTRUCTURE ASSOCIATION

CISPE.cloud

2020 NETWORLD

NESSI

Alliance for Internet of Things Innovation

Accelerating 5G Deployment: CEF2, pan European corridors for Connected Cars

6G Vision and technologies across a comprehensive supply chain

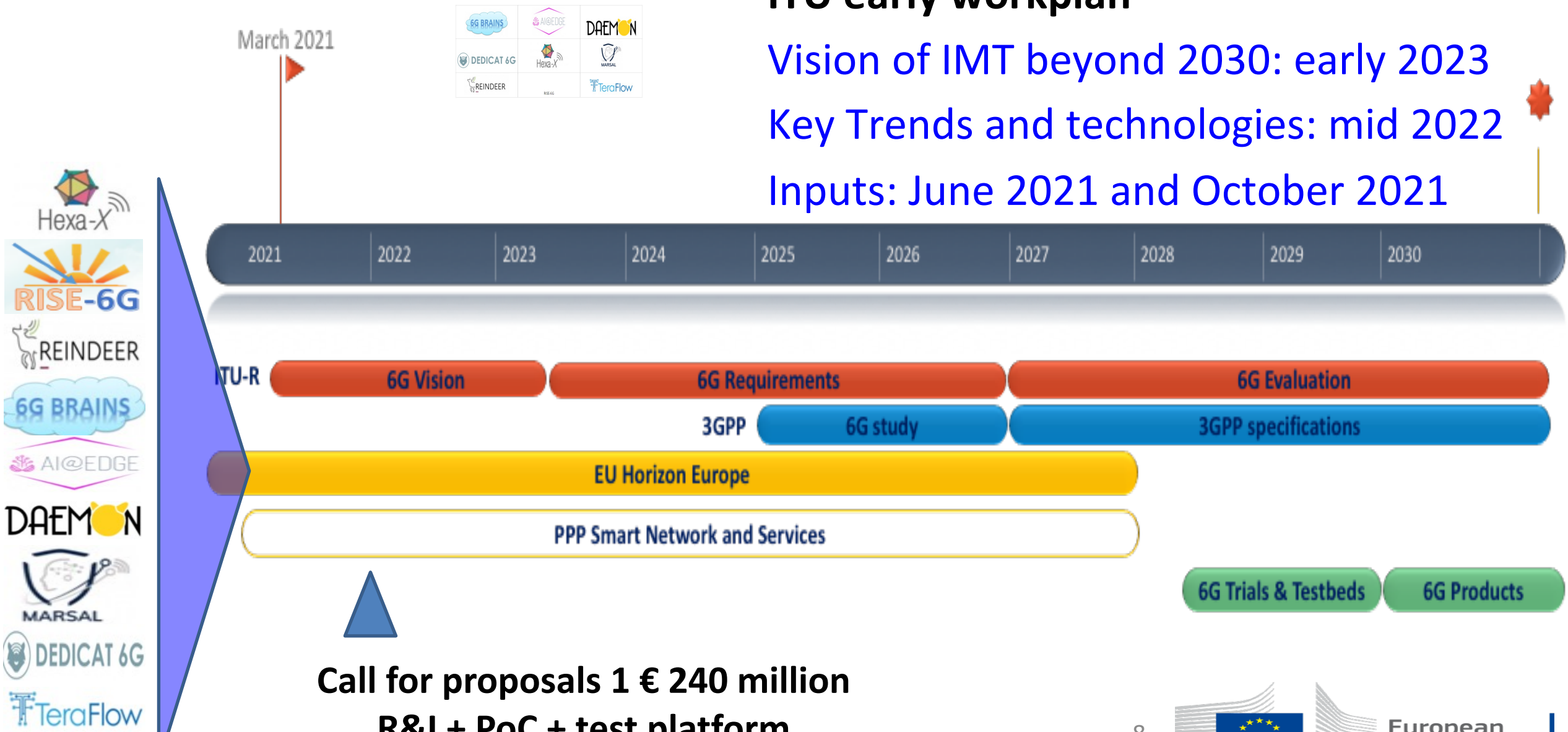
Tentative Timeline

ITU early workplan

Vision of IMT beyond 2030: early 2023

Key Trends and technologies: mid 2022

Inputs: June 2021 and October 2021



Call for proposals 1 € 240 million

R&I + PoC + test platform

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Thank You !

More info:

Smart Networks and Services (6G) Roadmap proposal

https://5g-ia.eu/sns-horizon-europe/

Horizon Europe Partnerships (23 Feb PR)

https://ec.europa.eu/commission/presscorner/detail/en/IP_21_702

Smart Network and Services (6G) EC announcement

https://ec.europa.eu/digital-single-market/en/news/europe-puts-forward-proposal-joint-undertaking-smart-networks-and-services-towards-6g

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