

**6G**

# **Towards 6G in Europe**

***6G Global 2021  
Seoul, 24 November 2021***

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# Beyond 5G/6G: Global Context

	B5G/6G Initiative
	<ul style="list-style-type: none"><li>- “Secure 5G &amp; Beyond Act” March 2020</li><li>- DoD Testbed programme, \$ 600 million</li><li>- Next-G initiative, industry federation (ATIS); RINGS (NSF)</li><li>- Open RAN Drive, \$2Bn</li></ul>
	<ul style="list-style-type: none"><li>- MIC “Roadmap towards 6G”, June 2020, B5G Promotion Consortium</li><li>- METI support</li><li>- \$300+200million</li><li>- Open RAN Drive, \$2Bn</li></ul>
	<ul style="list-style-type: none"><li>- MSIT 6G programme, September 2020, 5G Forum</li><li>- ≈ \$200 million public support</li></ul>
	<ul style="list-style-type: none"><li>- MIIT 6G programme, creation of IMT 2030 Promotion committee (2019)</li><li>- Multi € Billion until 2035, including industrialisation</li></ul>
	<ul style="list-style-type: none"><li>- <b>6G Smart Networks and Services Partnership proposal: € 900 millions / 6 yrs</b></li><li>- <b>Drivers:</b> <i>Strategic autonomy, Green Deal, Cybersecurity</i></li><li>- <b>Member States Initiatives:</b> Finland, Germany, France, Austria ..</li></ul>

# Motivations from 5G to 6G

## New classes of applications

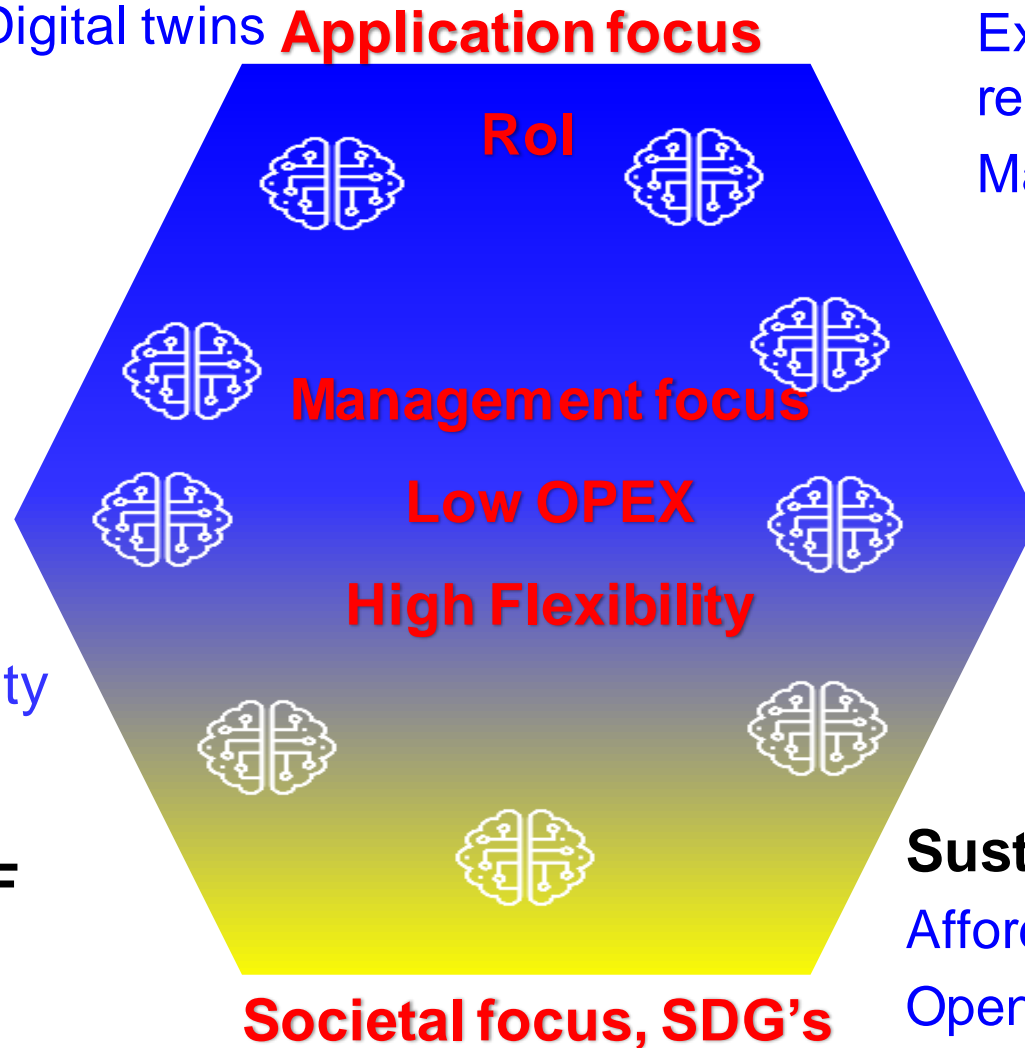
XR, Holographic coms, Digital twins  
Internet of Senses  
Deterministic E2E

## Automated & autonomous Infra/Service Mgt

-Programmability  
-Intelligence connectivity

## Ultra low energy/EMF

-connectivity  
-use cases



## Vertical use cases beyond 5G

Extending 5G KPI's in speed, latency, reliability, density, positioning  
Massive M2M

## Ultra high security/trust/ Privacy

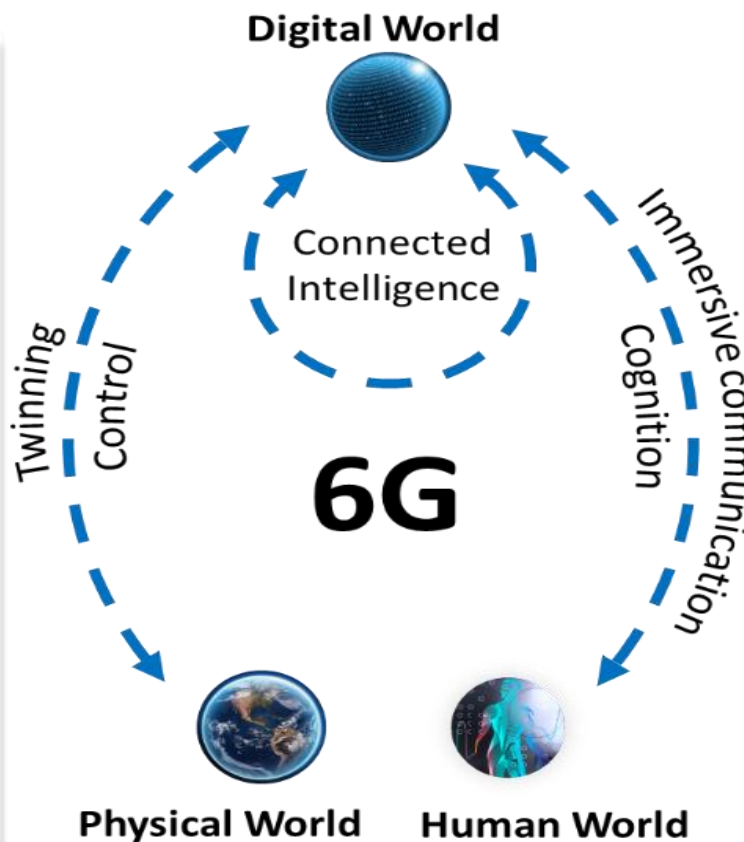
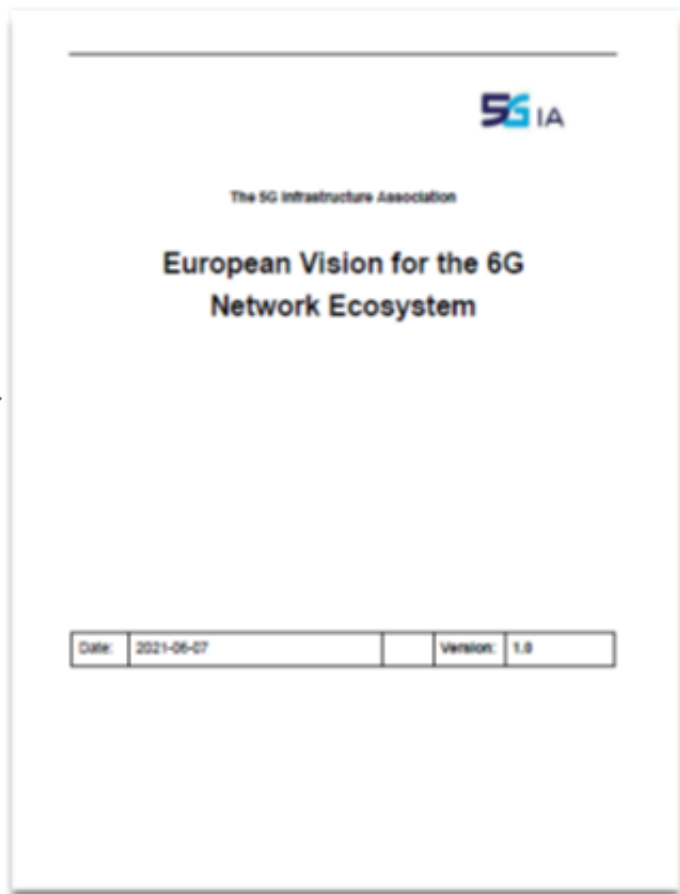
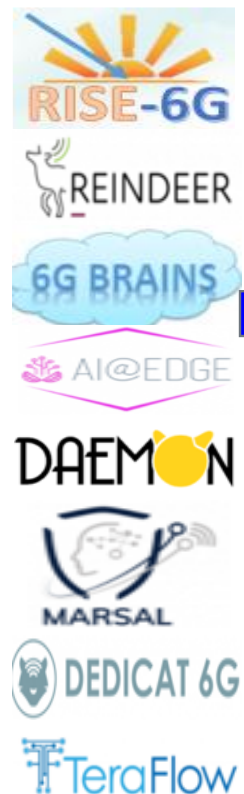
E2E, From component to application

## Sustainable Development goals

Affordability, Accessibility  
Openness..



# Vision



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>



# Towards a 6G European Initiative

5G PPP - Bridging phase

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



Strategic  
Autonomy in  
critical technology  
areas



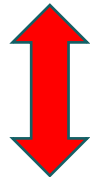
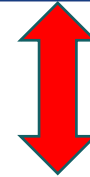
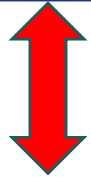
European Green  
Deal



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

6G SNS  
IA



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

# 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](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>