Hexa-X

The European 6G flagship project

hexa-x.eu

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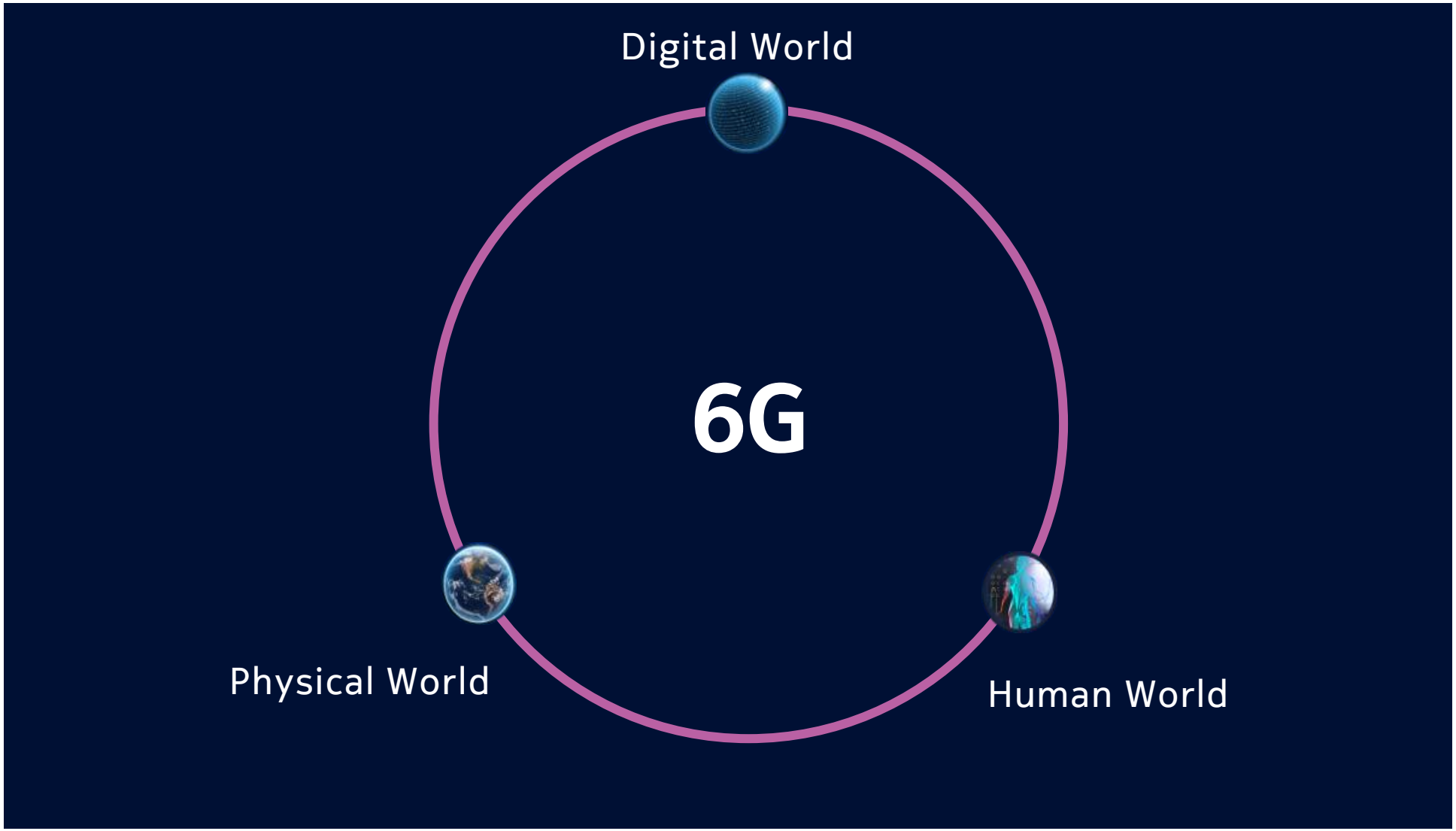
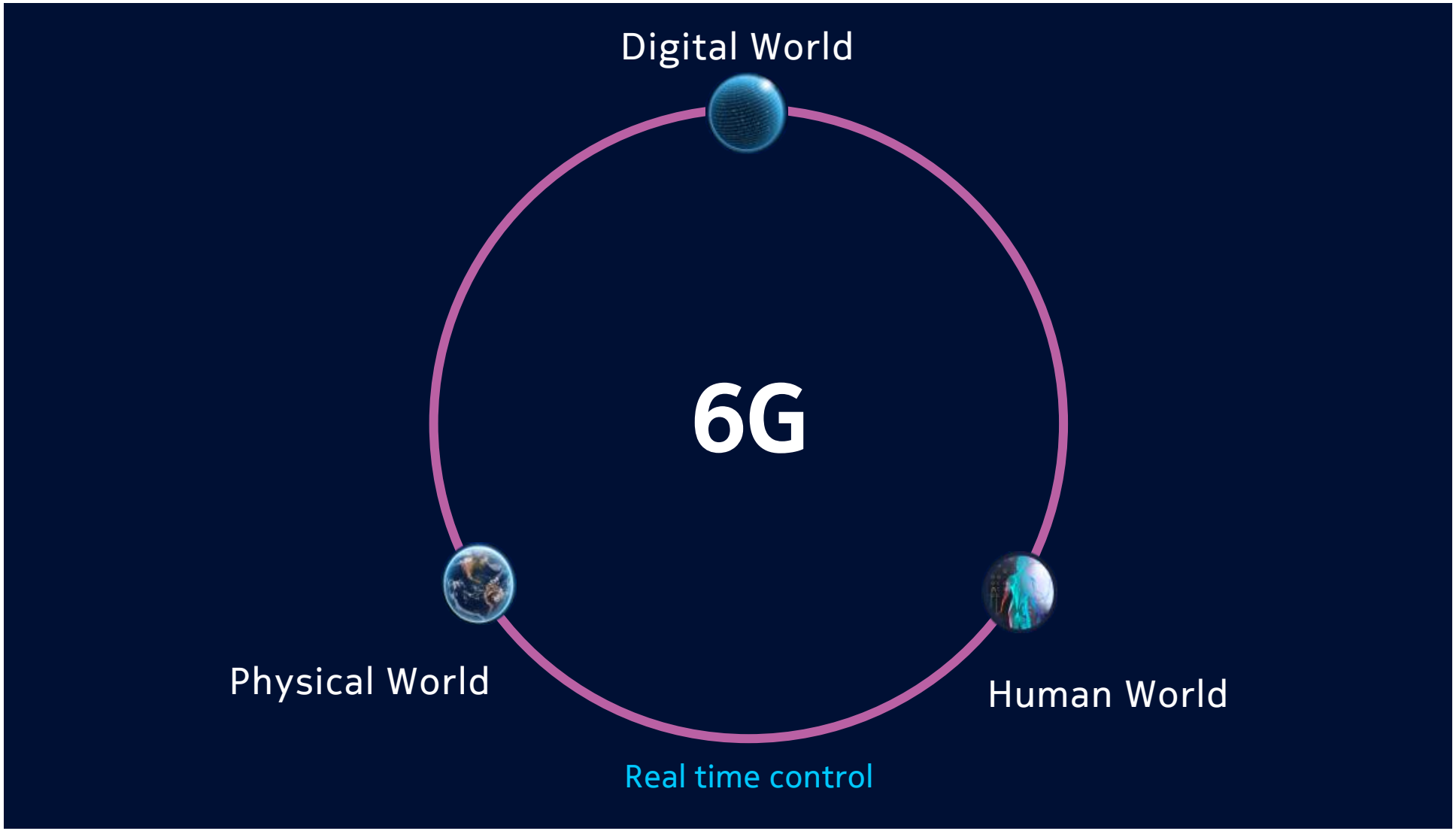
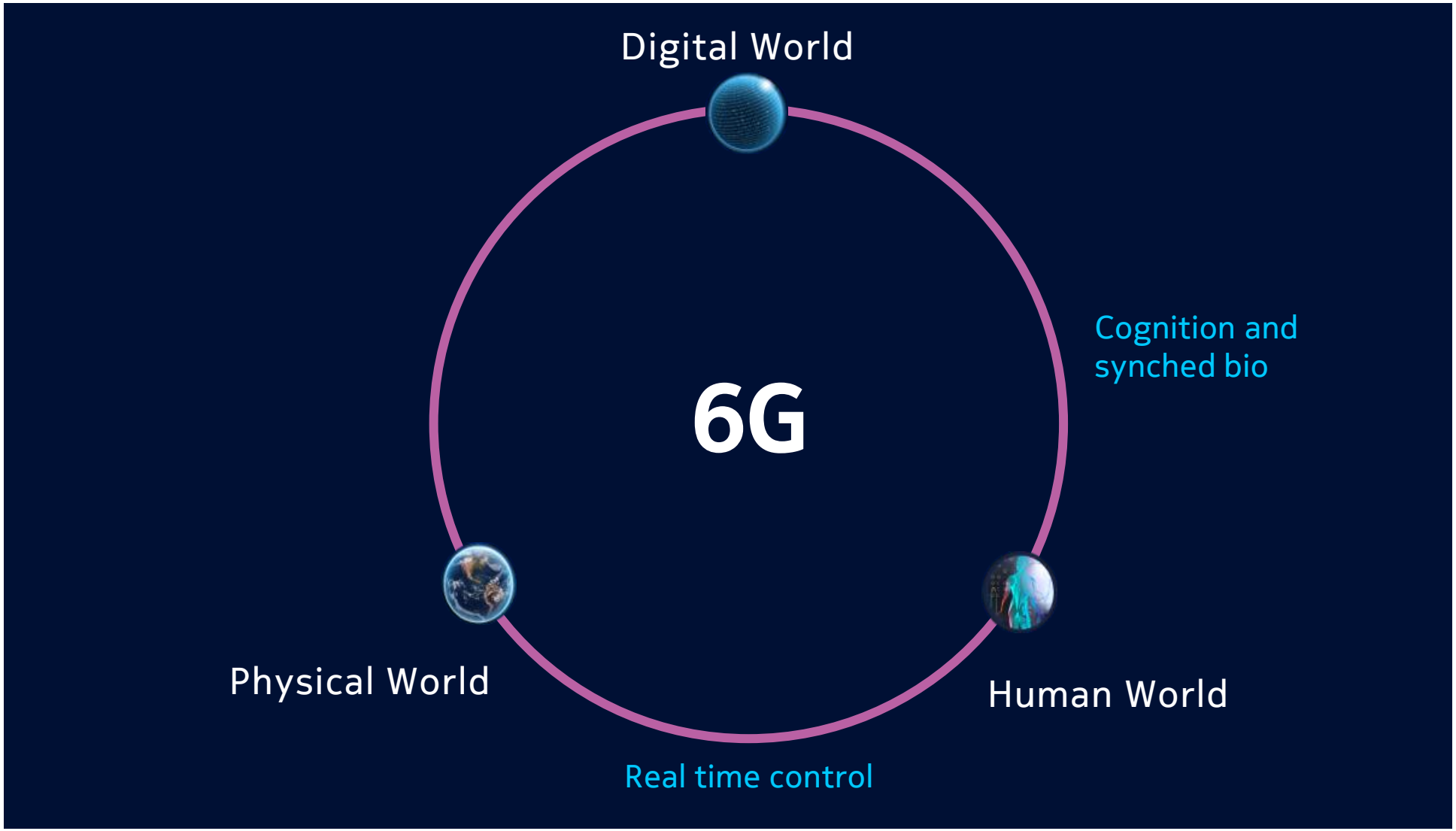
Hexa-X Vision



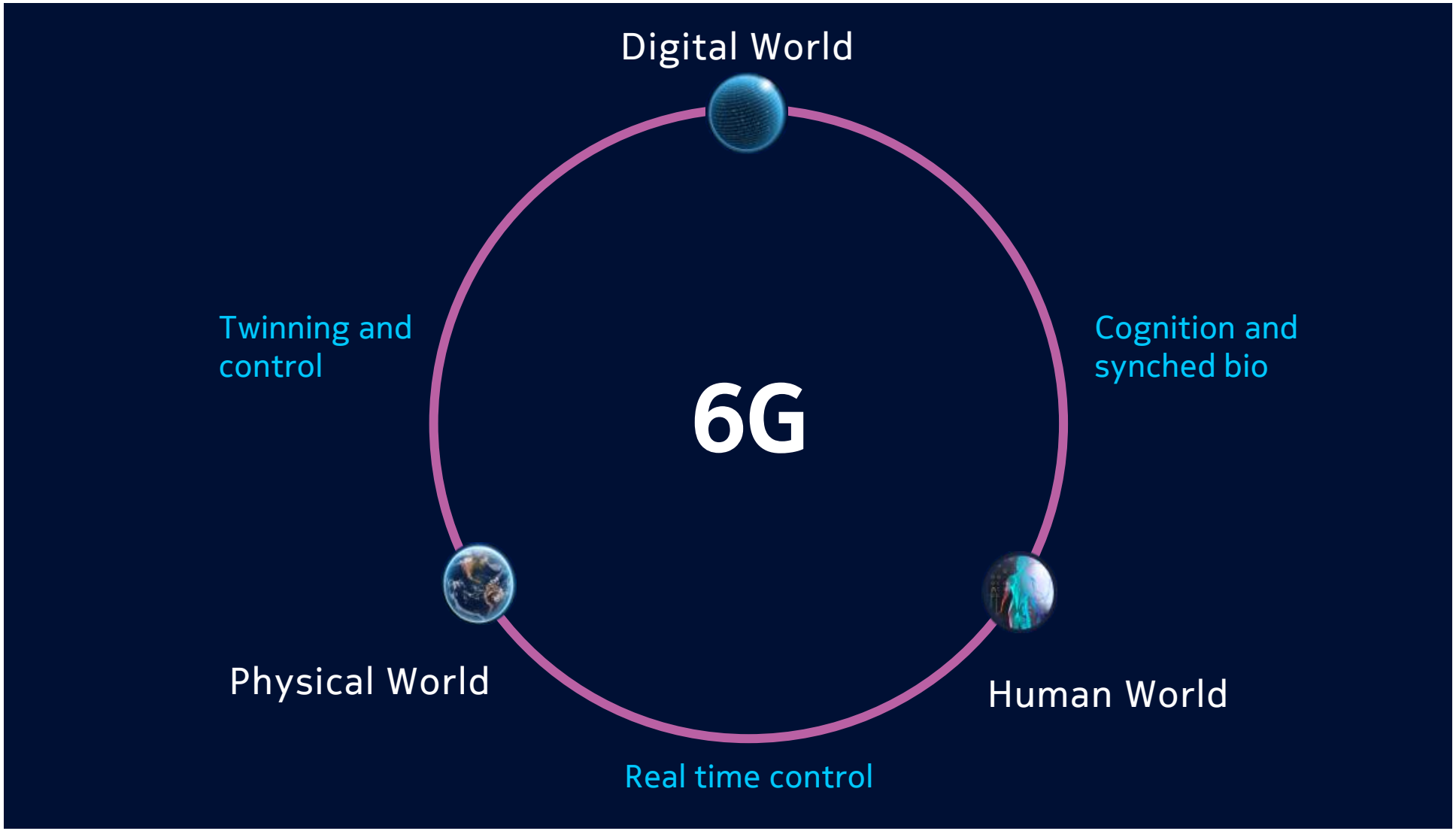
Hexa-X Vision



Hexa-X Vision

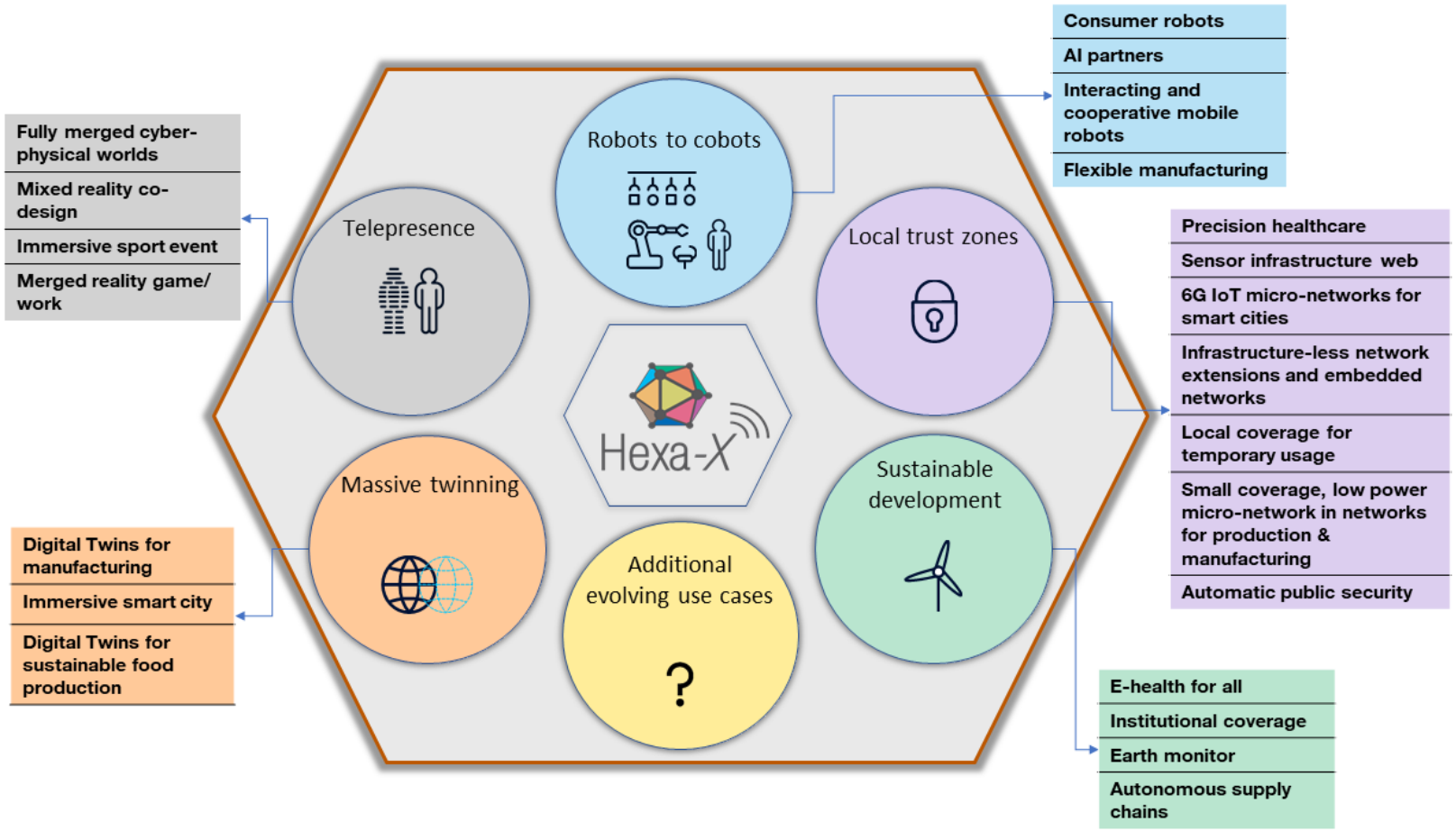


Hexa-X Vision



Use Cases & Services

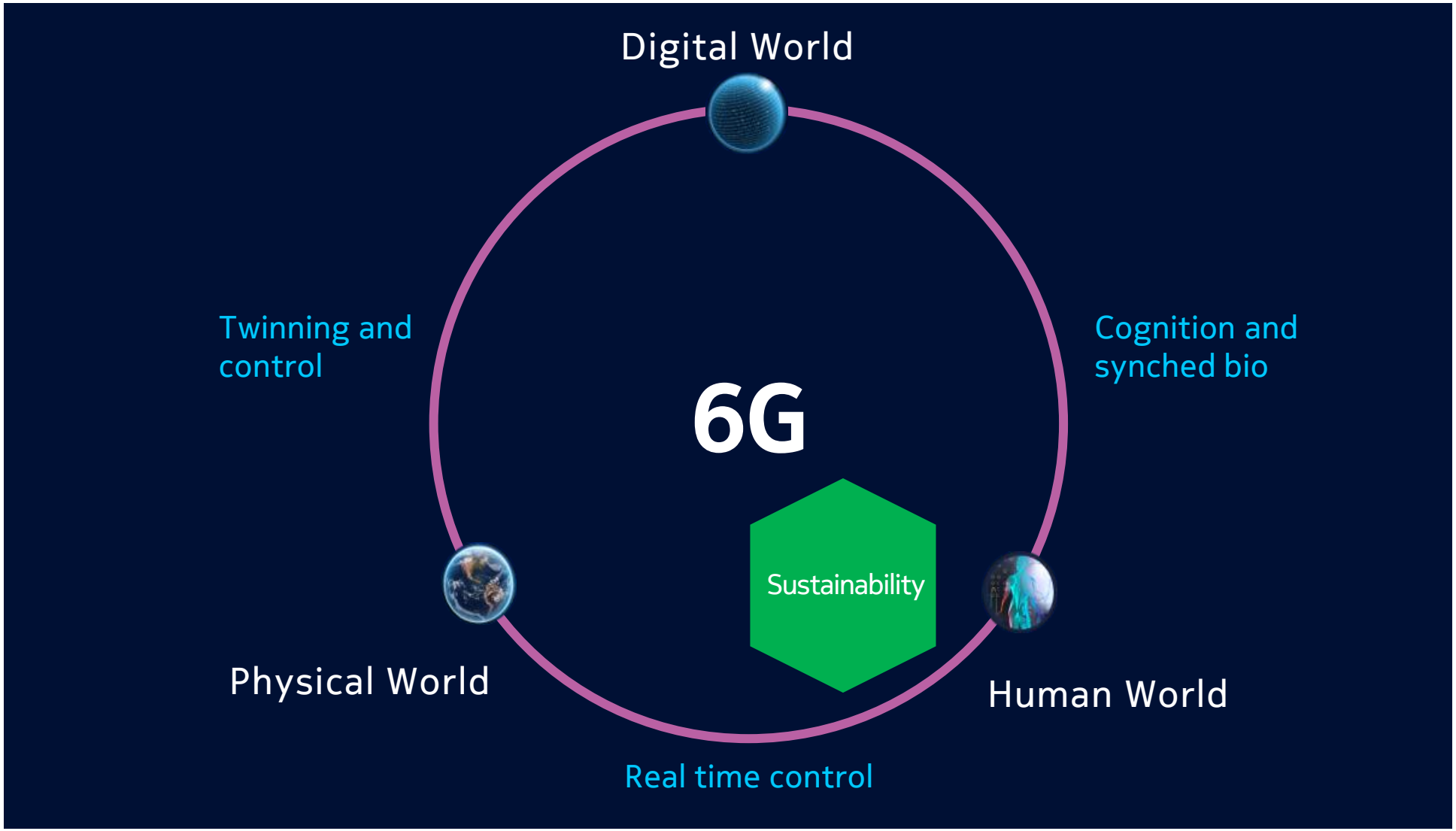
23 use cases, clustered in to 5 families



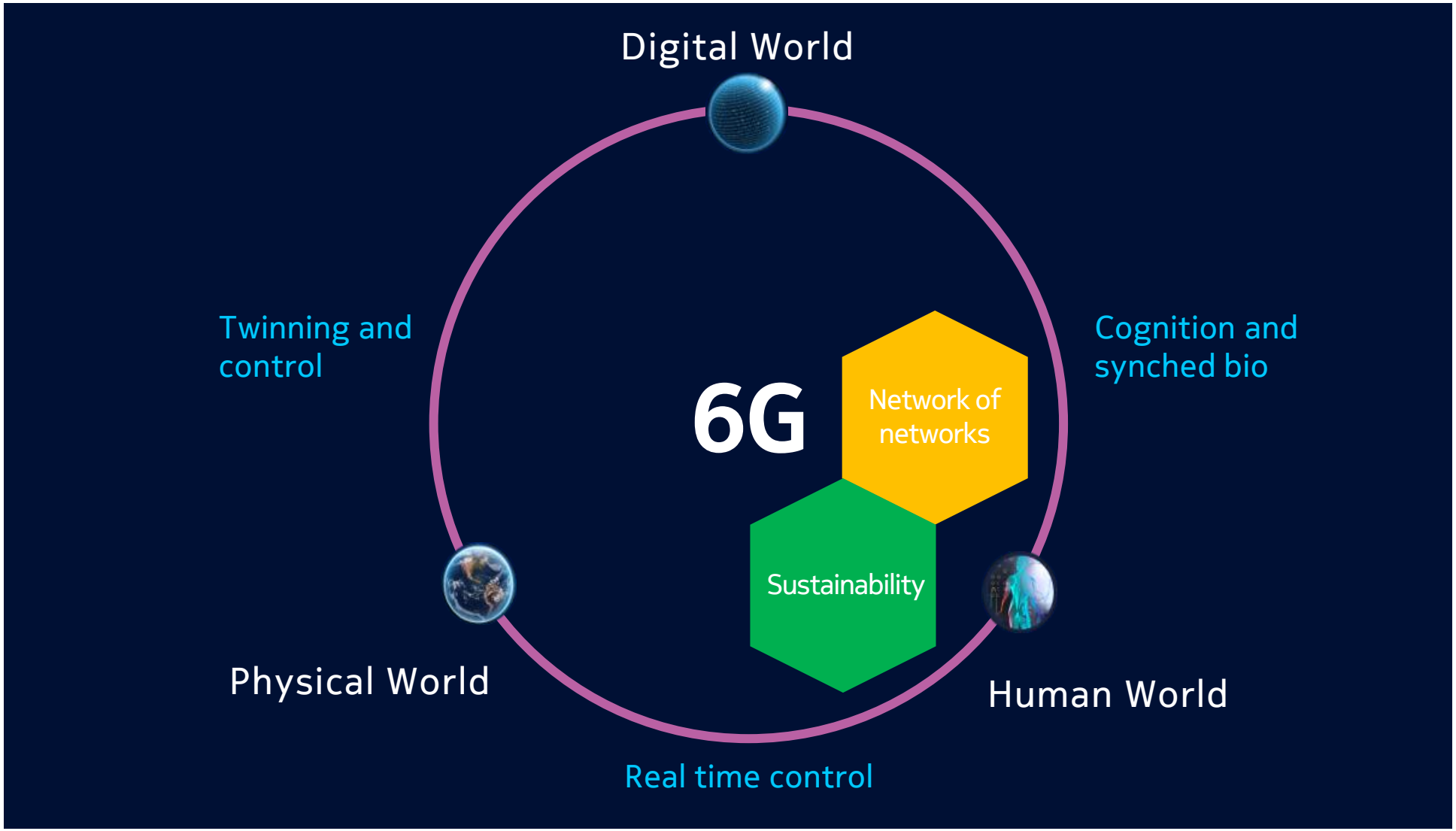
In addition to the use cases, 7 enabling services harnessing new capabilities have been identified:

- Compute-as-a-Service (CaaS) for resource-constrained devices
- AI-as-a-Service (AIaaS)
- AI-assisted Vehicle-to-Everything (V2X)
- Flexible device type change
- Energy-optimised services
- Internet-of-Tags
- Security as a service for other networks

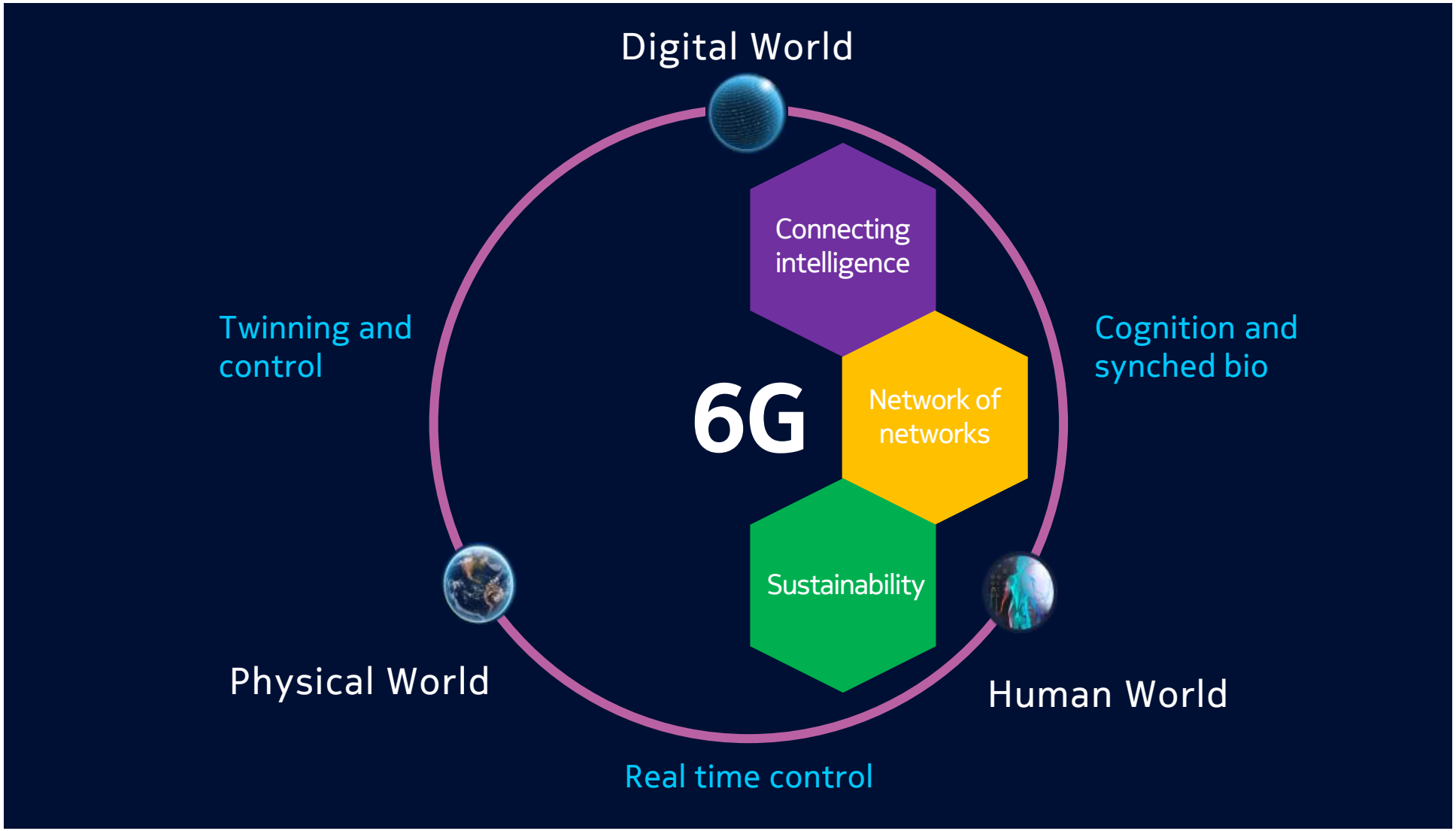
Hexa-X Vision



Hexa-X Vision



Hexa-X Vision



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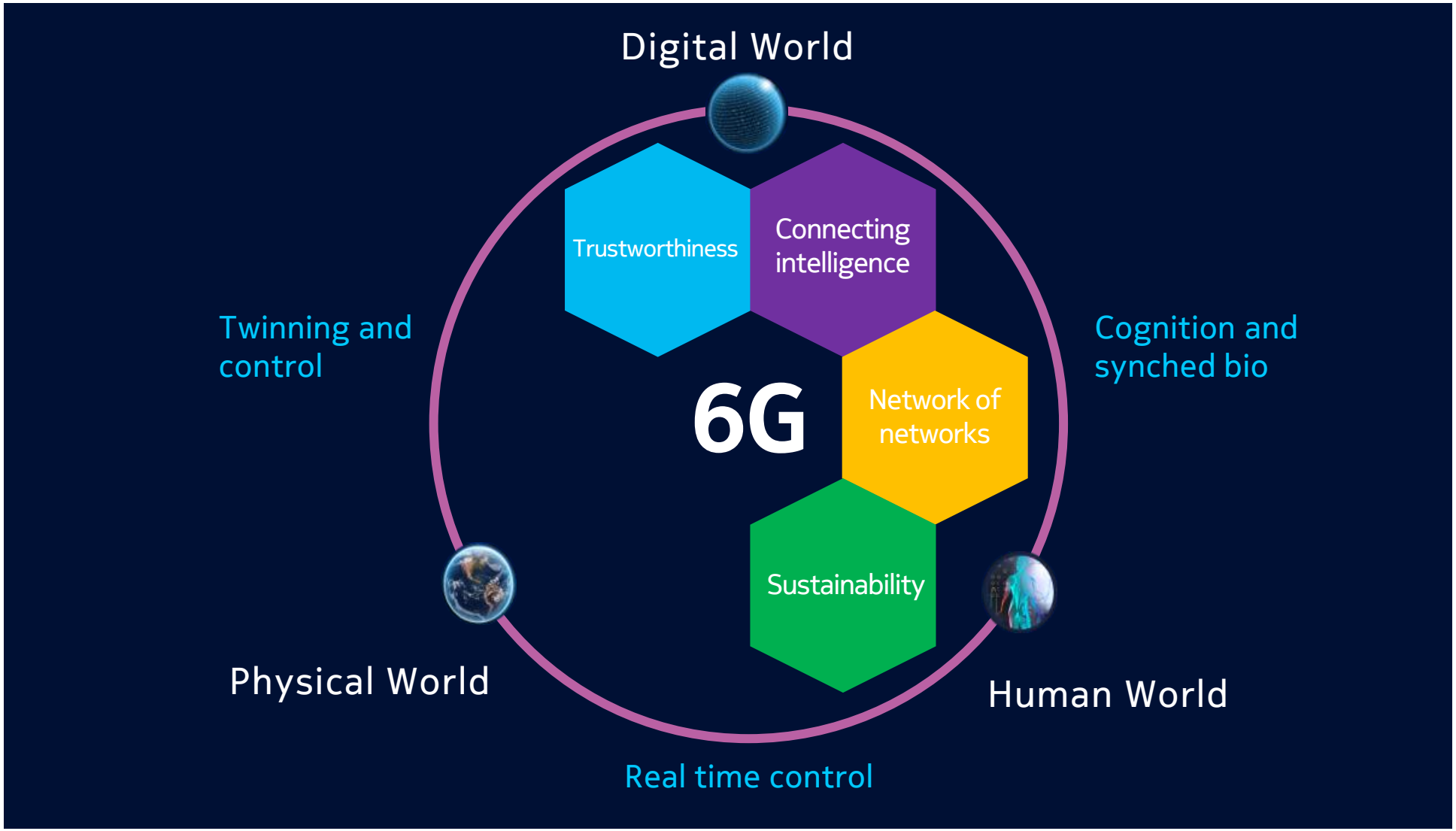

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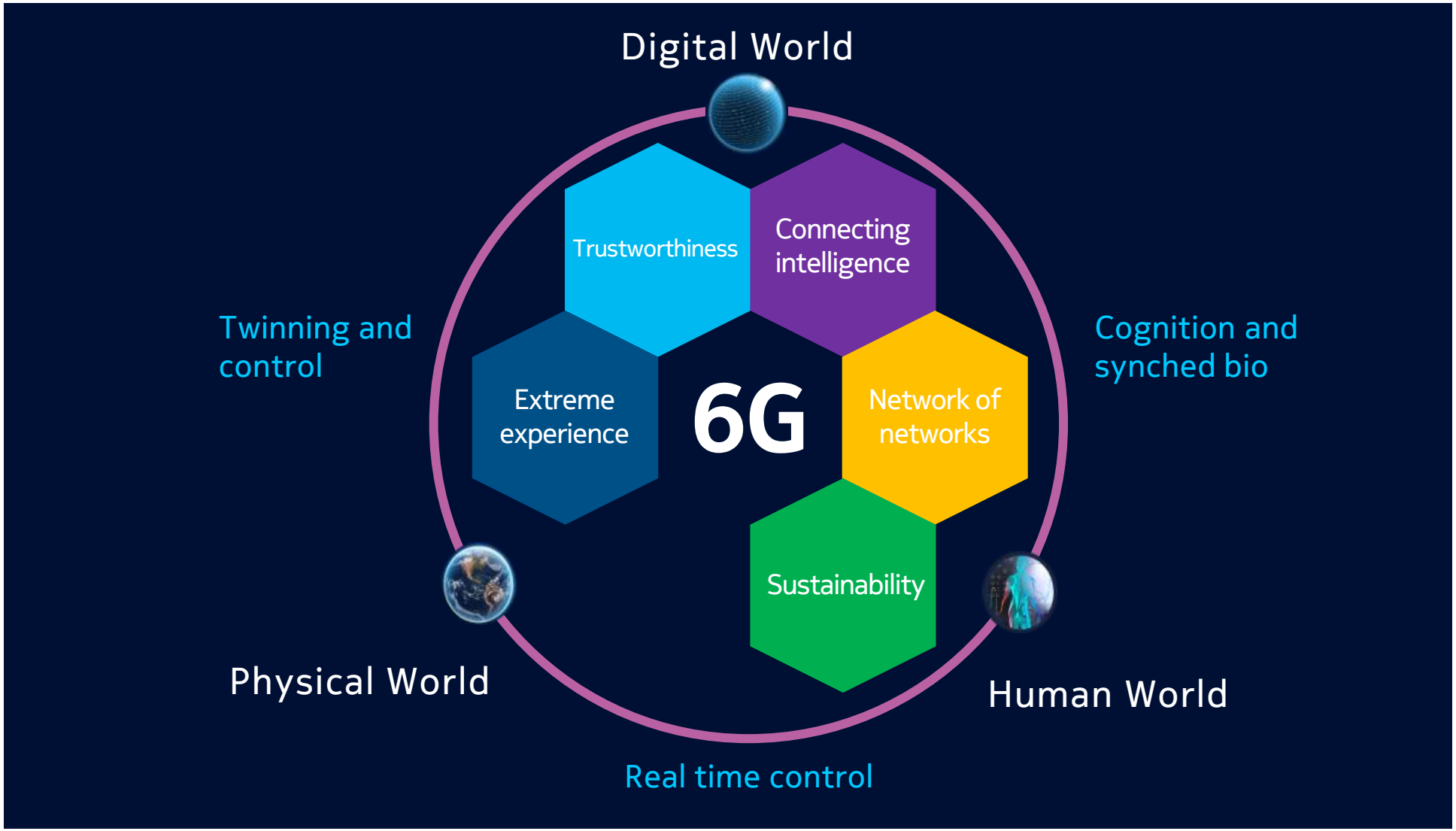

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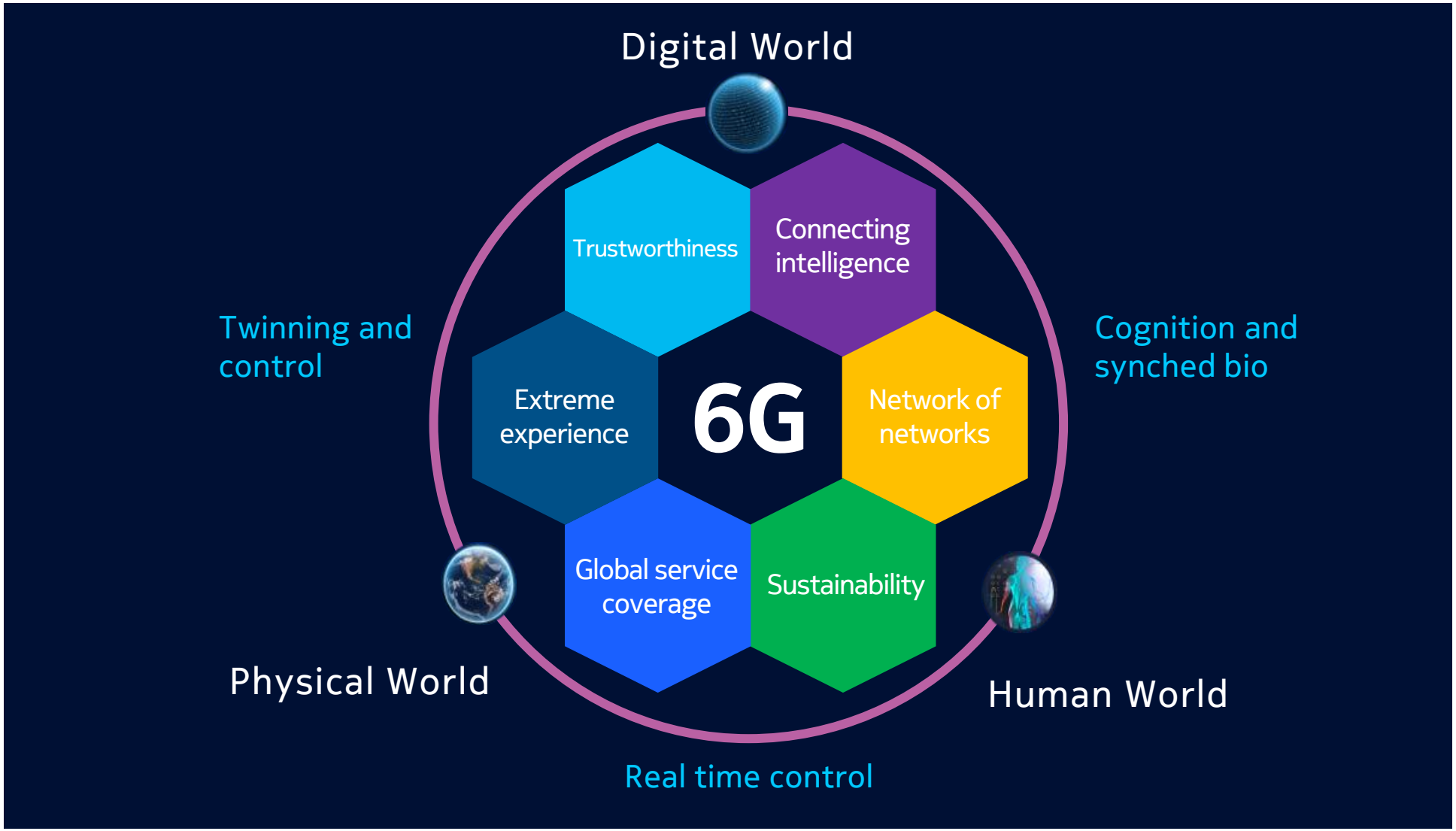
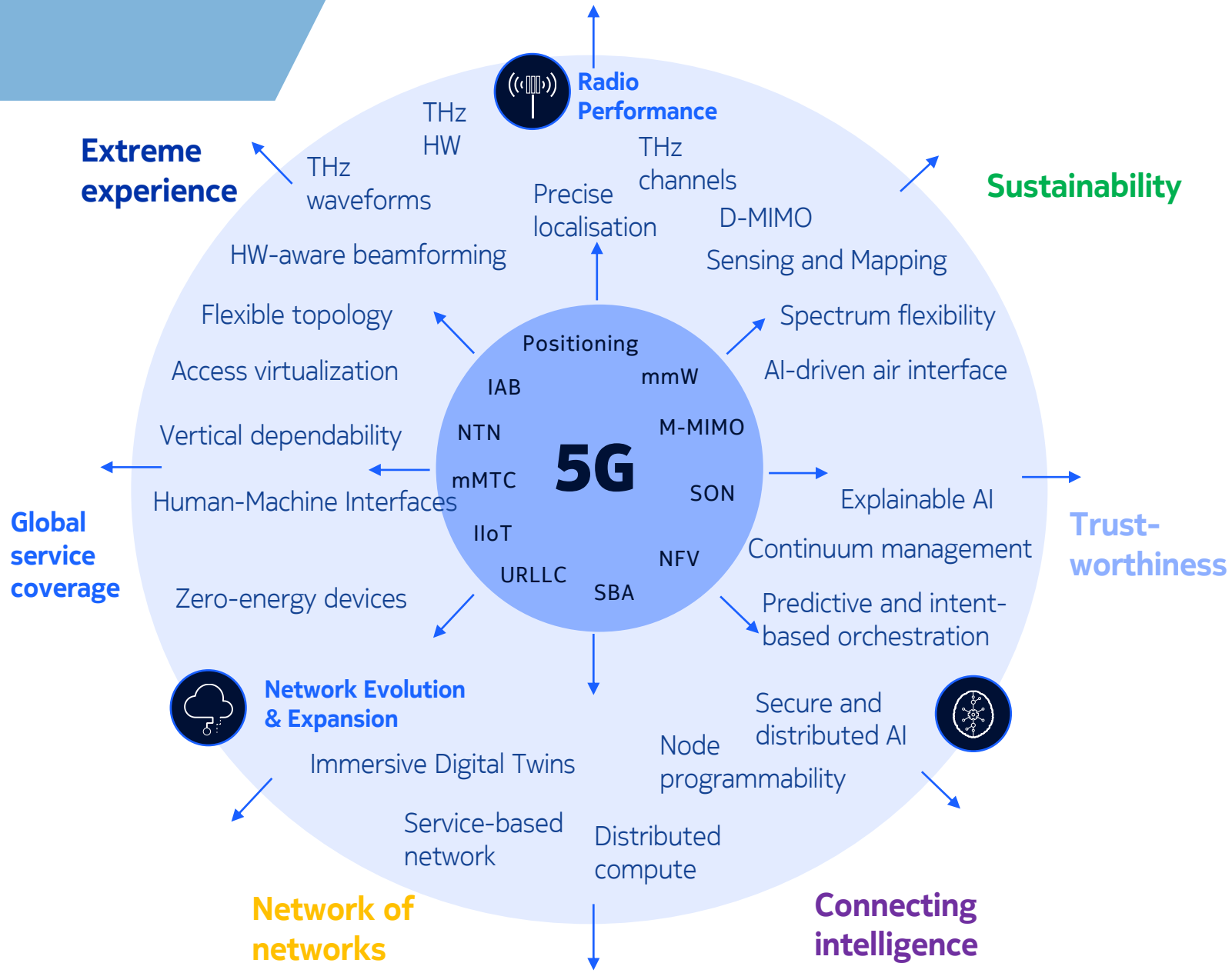
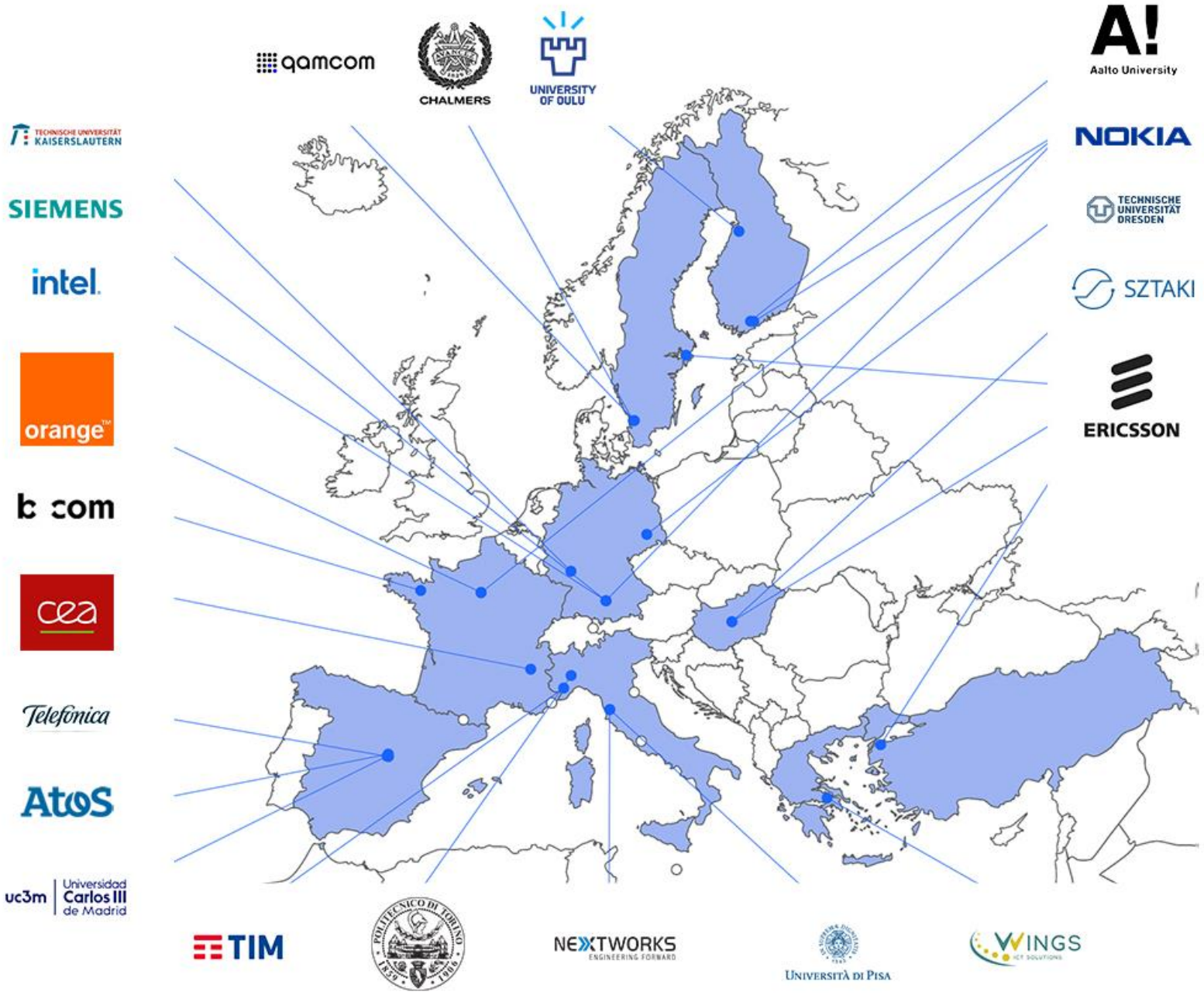


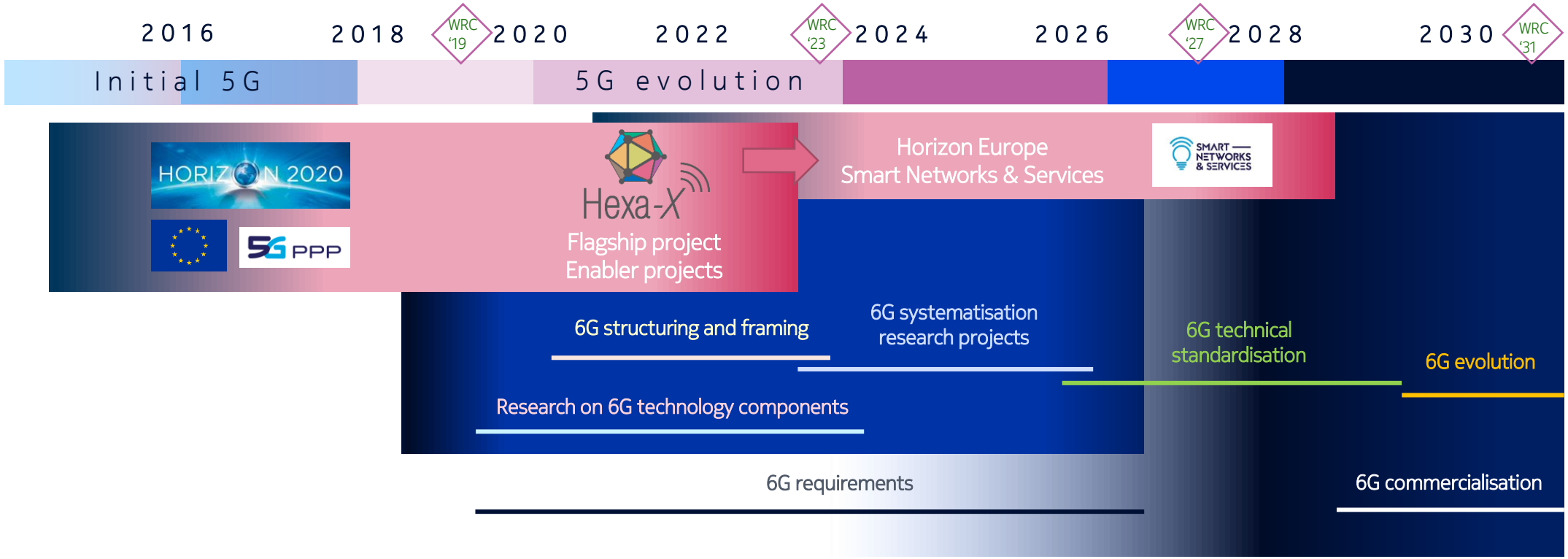
Ambitions


Radio Performance
THz HW
THz channels
Precise localisation
D-MIMO
Sensing and Mapping
Extreme experience
THz waveforms
HW-aware beamforming
Sustainability
Flexible topology
Spectrum flexibility
Access virtualization
AI-driven air interface
Positioning
IAB
mmW
NTN
M-MIMO
5G
Vertical dependability
mMTC
SON
Human-Machine Interfaces
Explainable AI
Trust-worthiness
Global service coverage
IIoT
Continuum management
NFV
URLLC
SBA
Zero-energy devices
Predictive and intent-based orchestration
Network Evolution & Expansion
Secure and distributed AI
Node programmability
Immersive Digital Twins
Service-based network
Distributed compute
Network of networks
Connecting intelligence

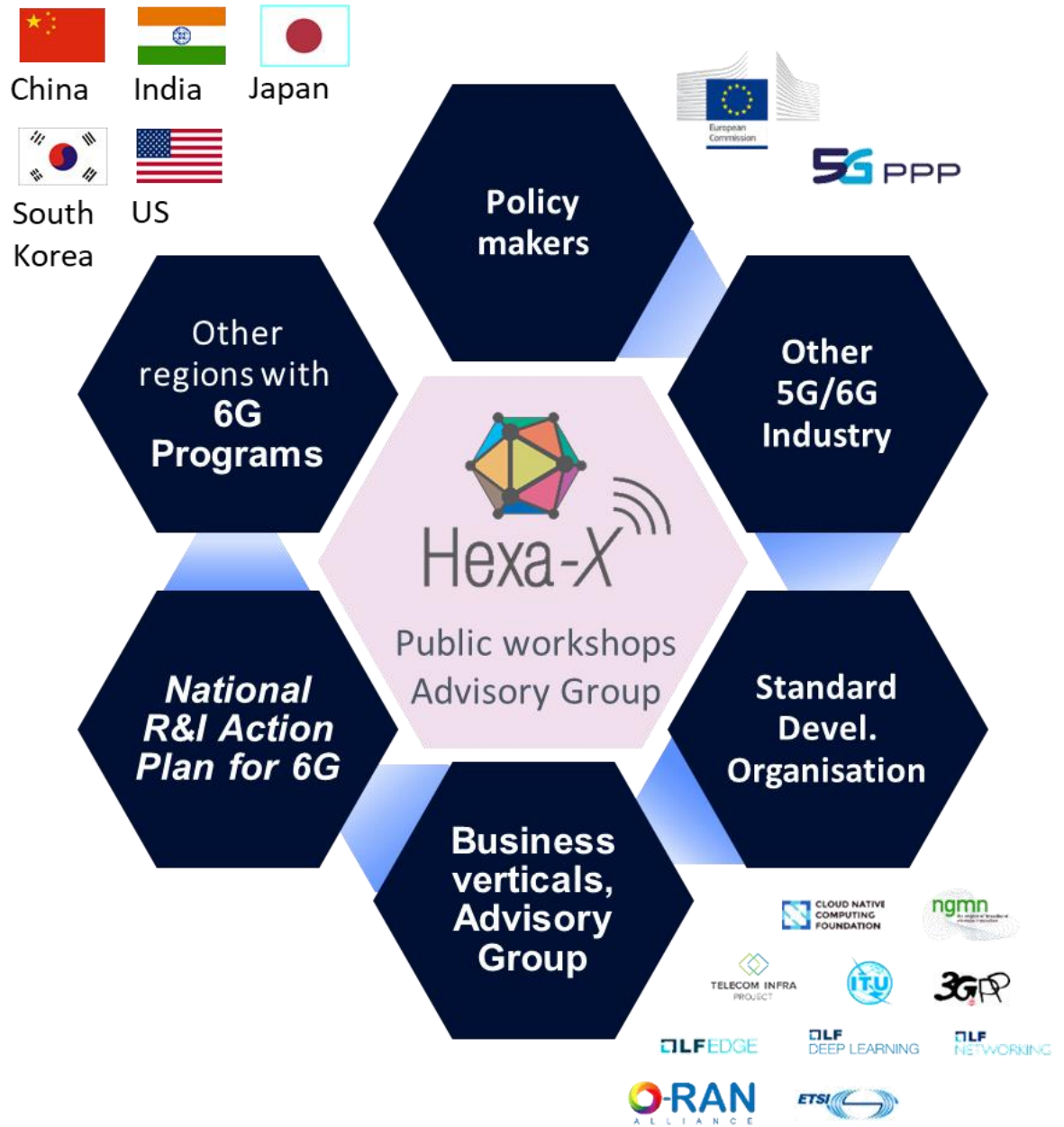
Hexa-X Consortium



Timeline

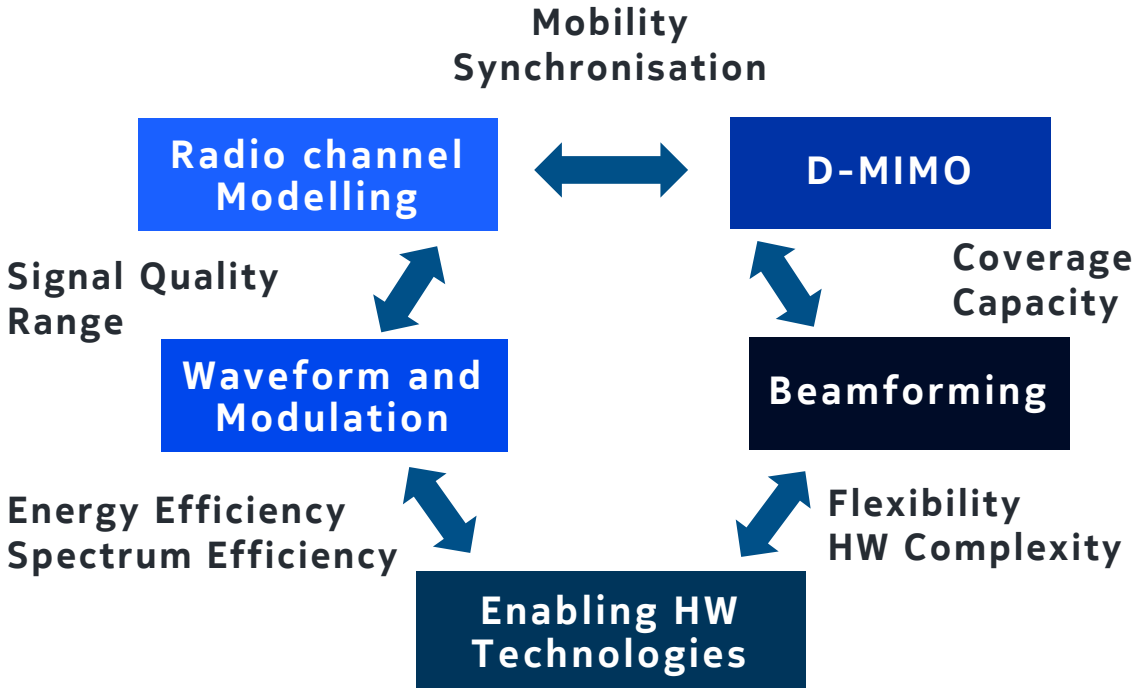

2016
2018
WRC '19
2020
2022
WRC '23
2024
2026
WRC '27
2028
2030
WRC '31
Initial 5G
5G evolution
HORIZON 2020
PPP
Hexa-X
Flagship project
Enabler projects
Horizon Europe
Smart Networks & Services
SMART NETWORKS & SERVICES
6G structuring and framing
6G systematisation research projects
6G technical standardisation
6G evolution
Research on 6G technology components
6G requirements
6G commercialisation

Relation of Hexa-X to major stakeholders.

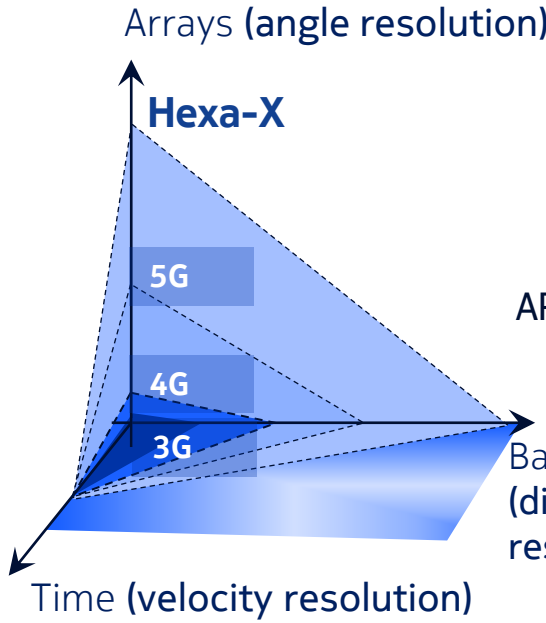


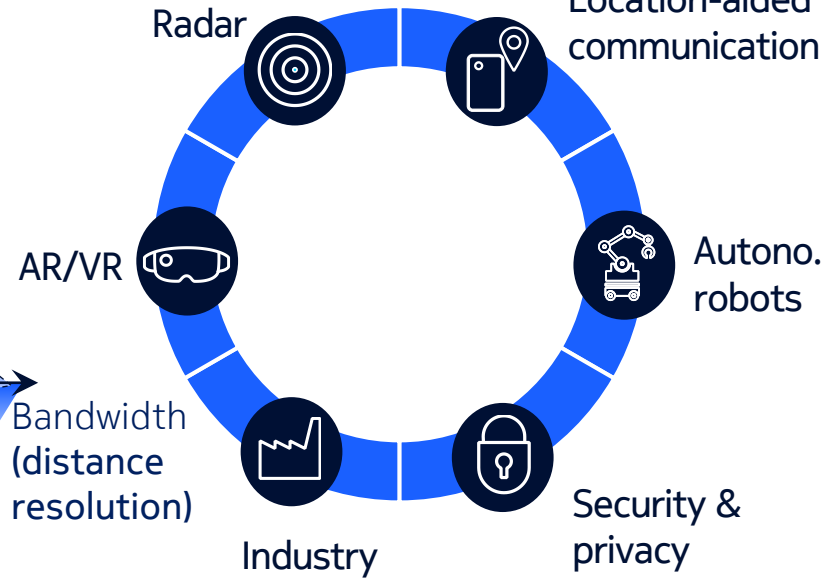
Radio performance towards 6G

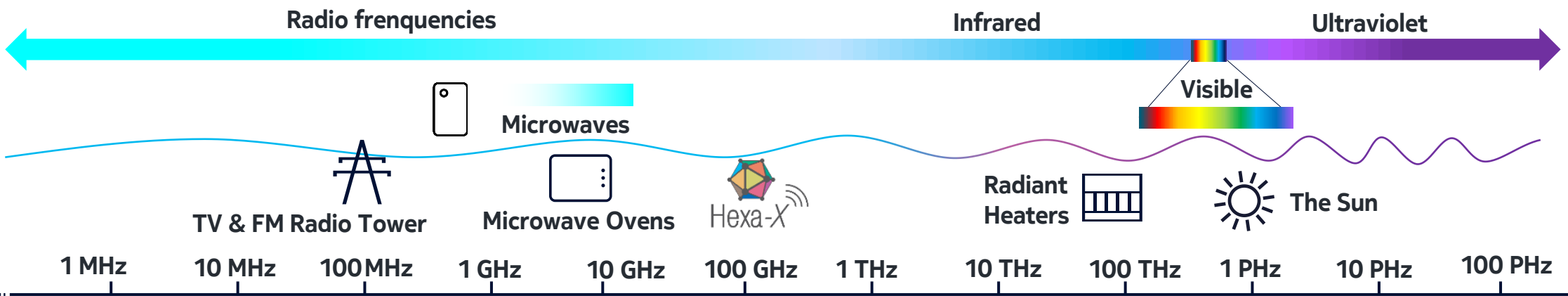
Towards Seemly Infinite Capacity and Data Rate



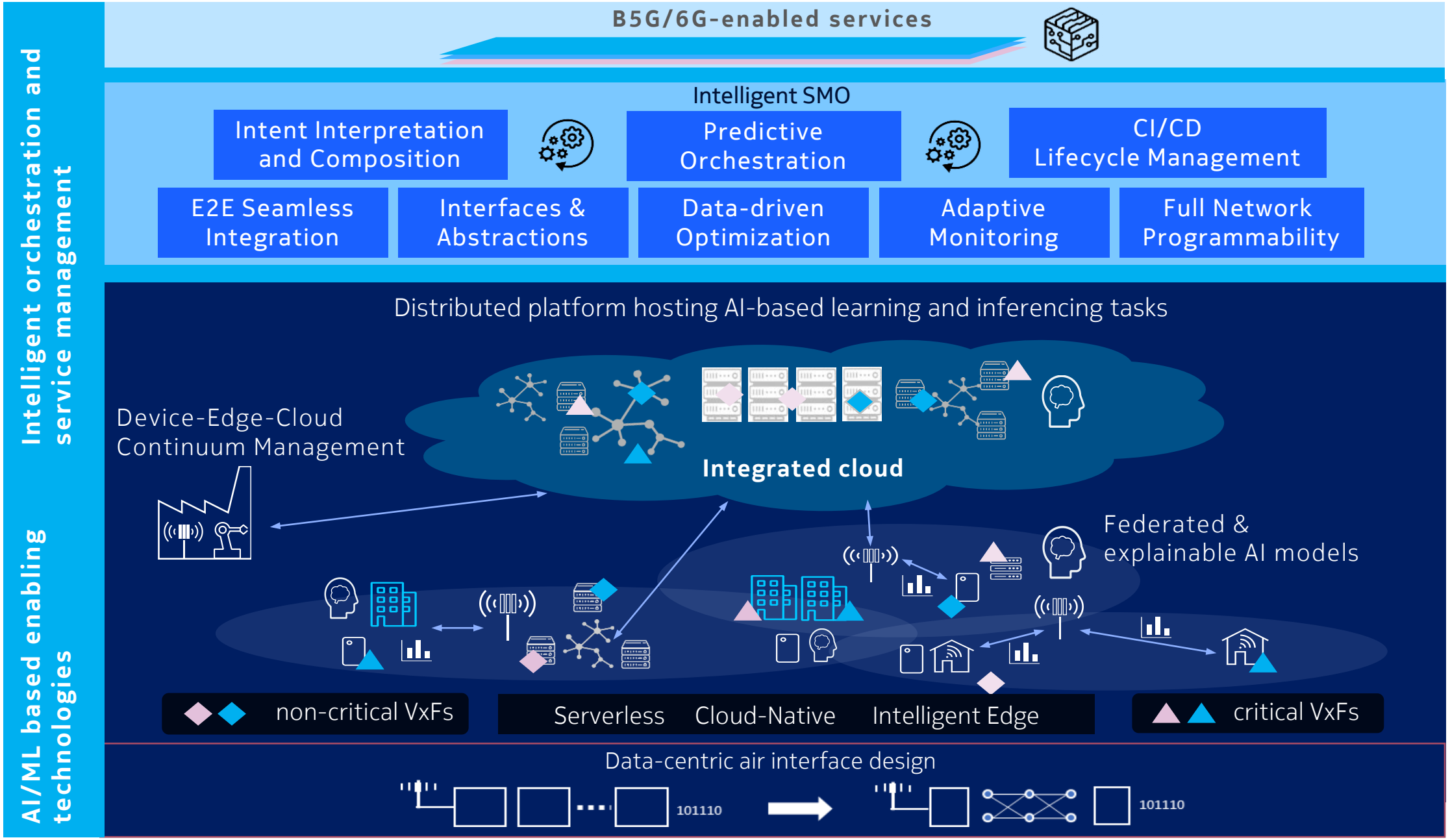
6D high-resolution localization and sensing



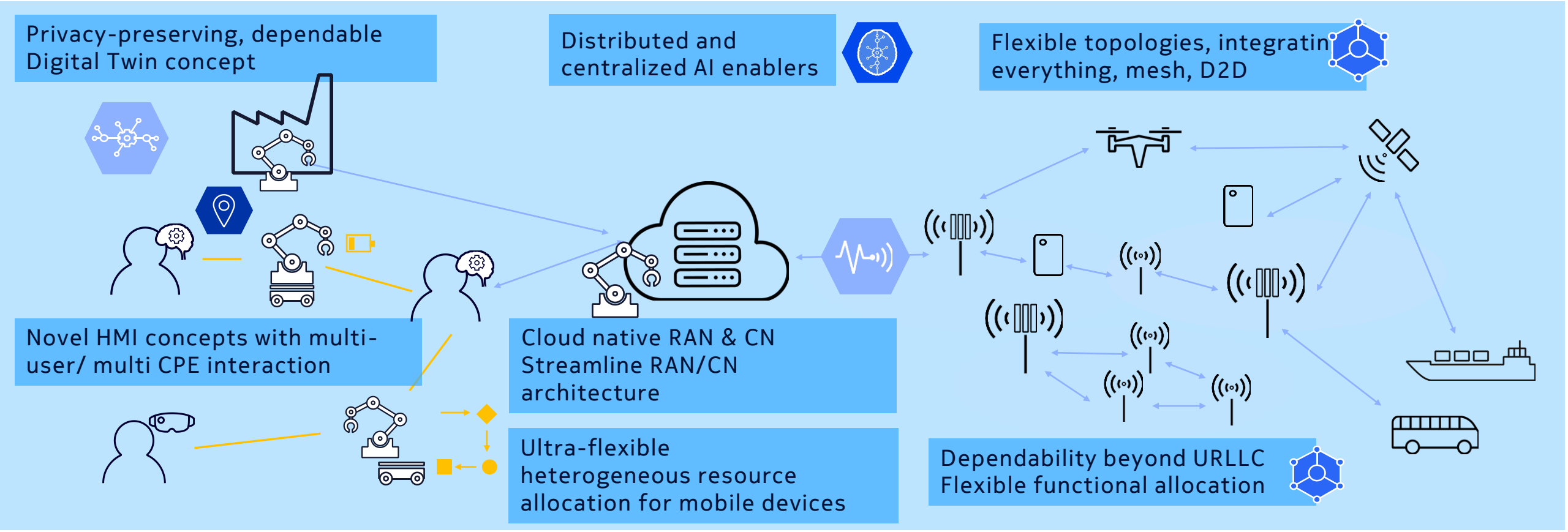




Connecting intelligence towards 6G



Network evolution and expansion towards 6G



Thank you!

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