

# NOKIA

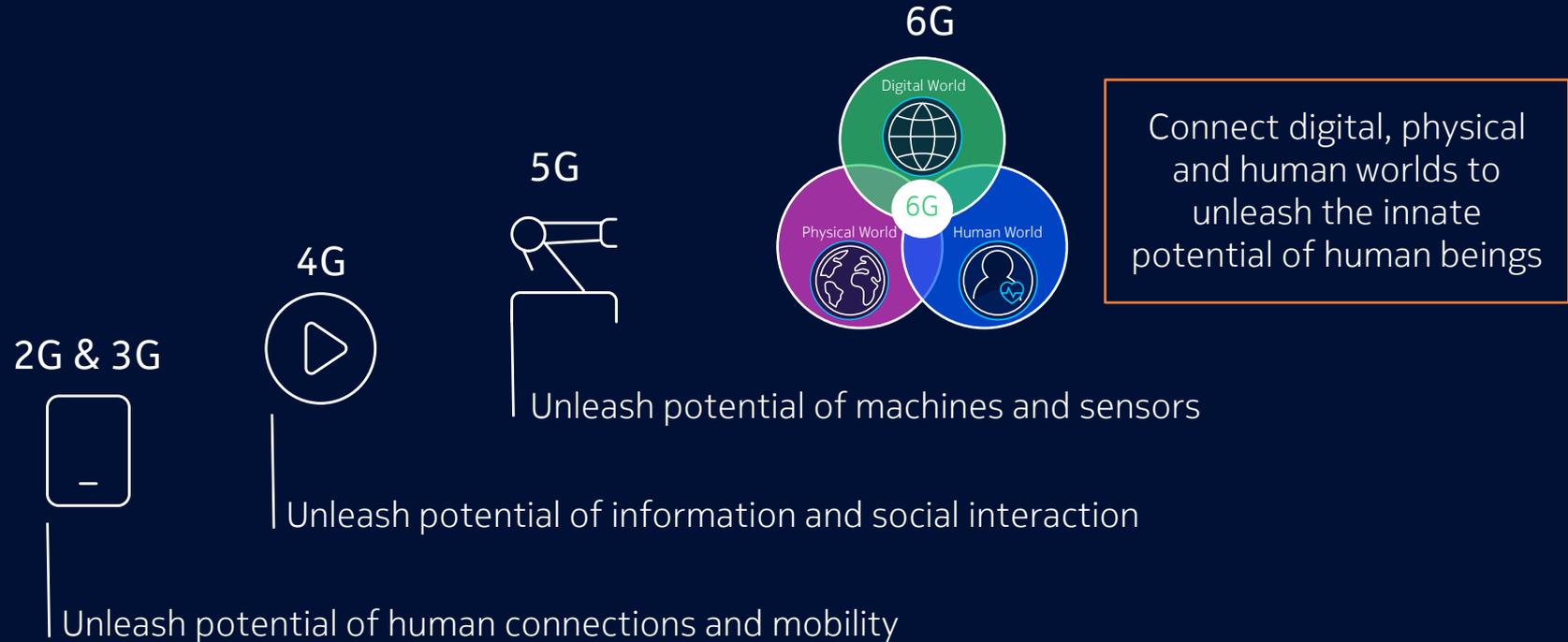
## 6G for verticals – a perspective on usage scenarios

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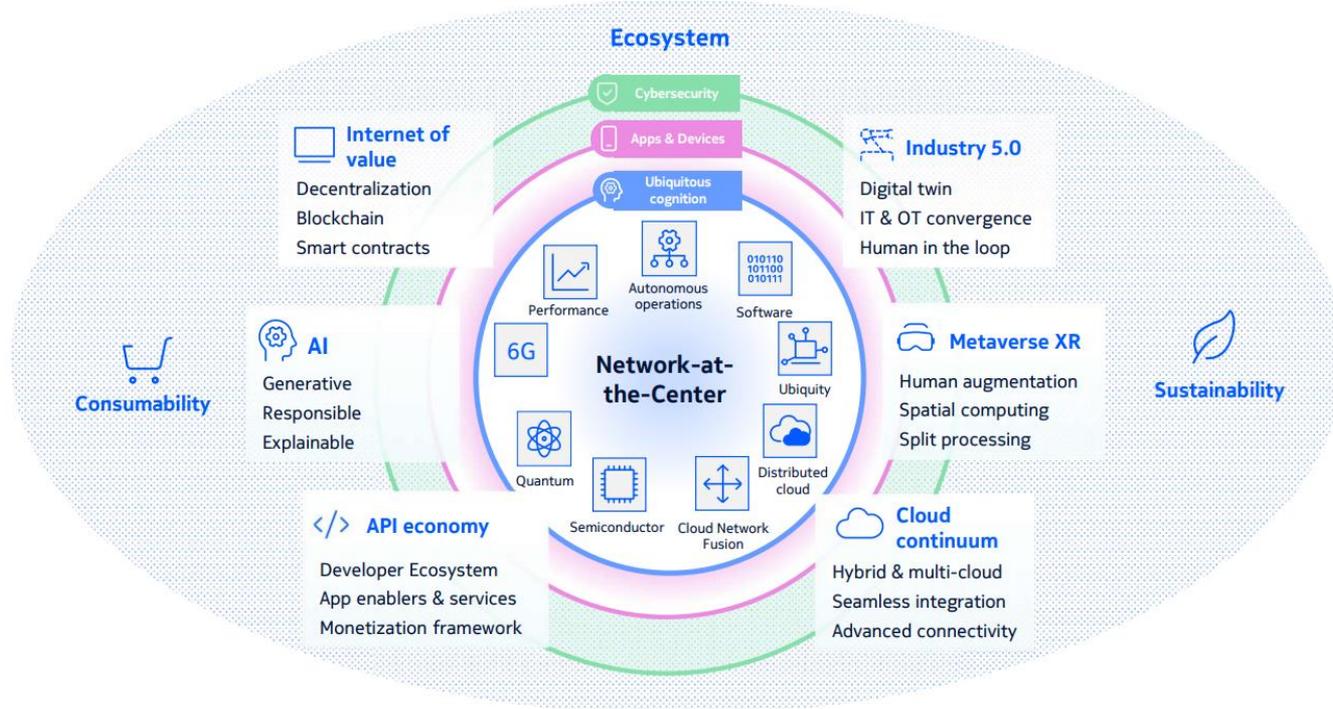


# The digital, physical and human worlds will become closely integrated in the 6G era



# The network and digital economy interplay

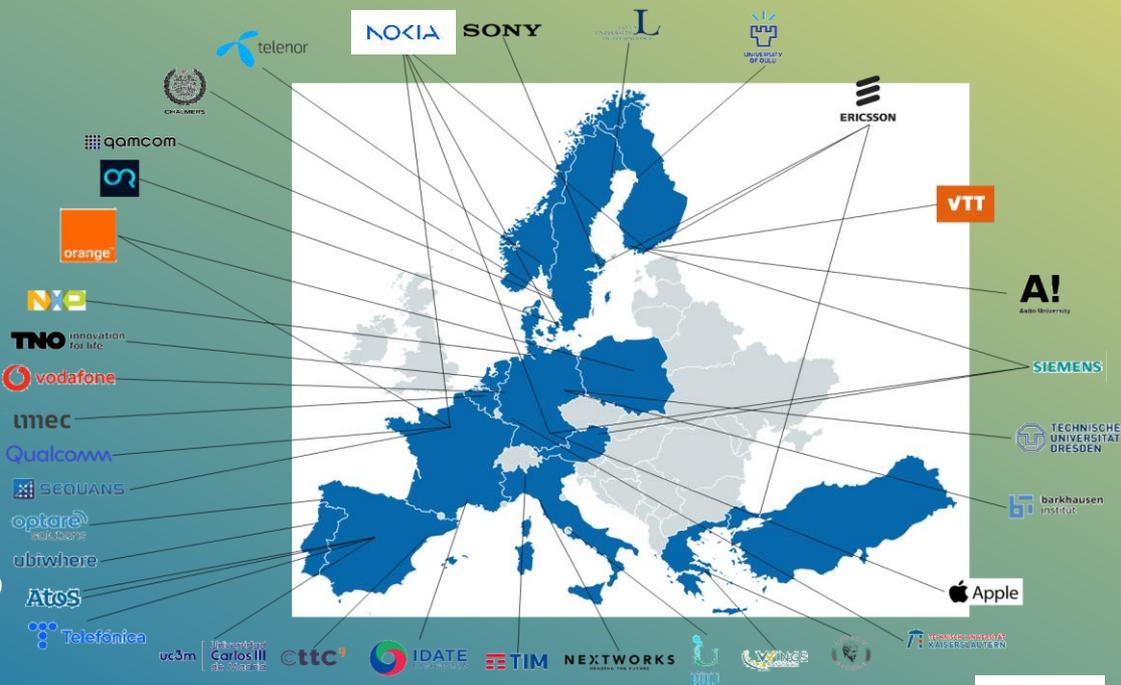
Evolution of network technologies and architecture is driven by value creation



# Hexa-X-II European flagship 6G project



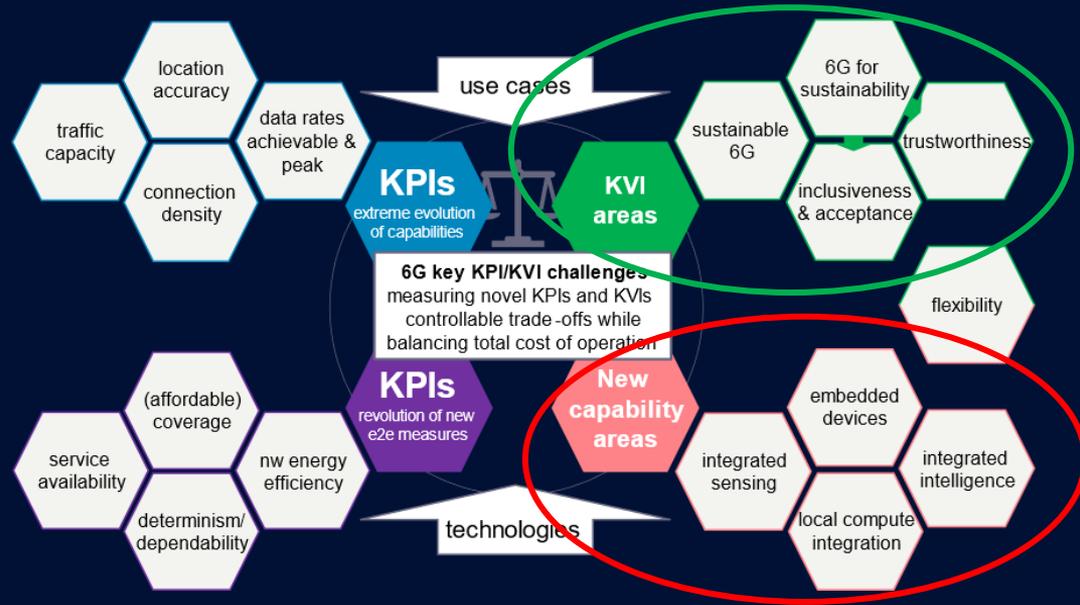
- Hexa-X-II is the next European level 6G Flagship
- Focus will be continued development of technology and define the 6G platform and system
- Funded through Horizon Europe SNS-JU
- Nokia is overall leader
- Ericsson is technical manager
- 44 partners
  - Cover the entire value-stack from hardware to system to platform to applications to service providers and a strong academic presence



# Requirements (KPIs/KVIs)



- Moving toward both performance and value-oriented design paradigm
- “Values” such as sustainability, trustworthiness, inclusion and flexibility.
- Evaluation criteria:
  - KVIs address UN SDGs
  - KPIs of new capabilities
  - KPIs focusing on E2E measurements
  - Traditional KPIs

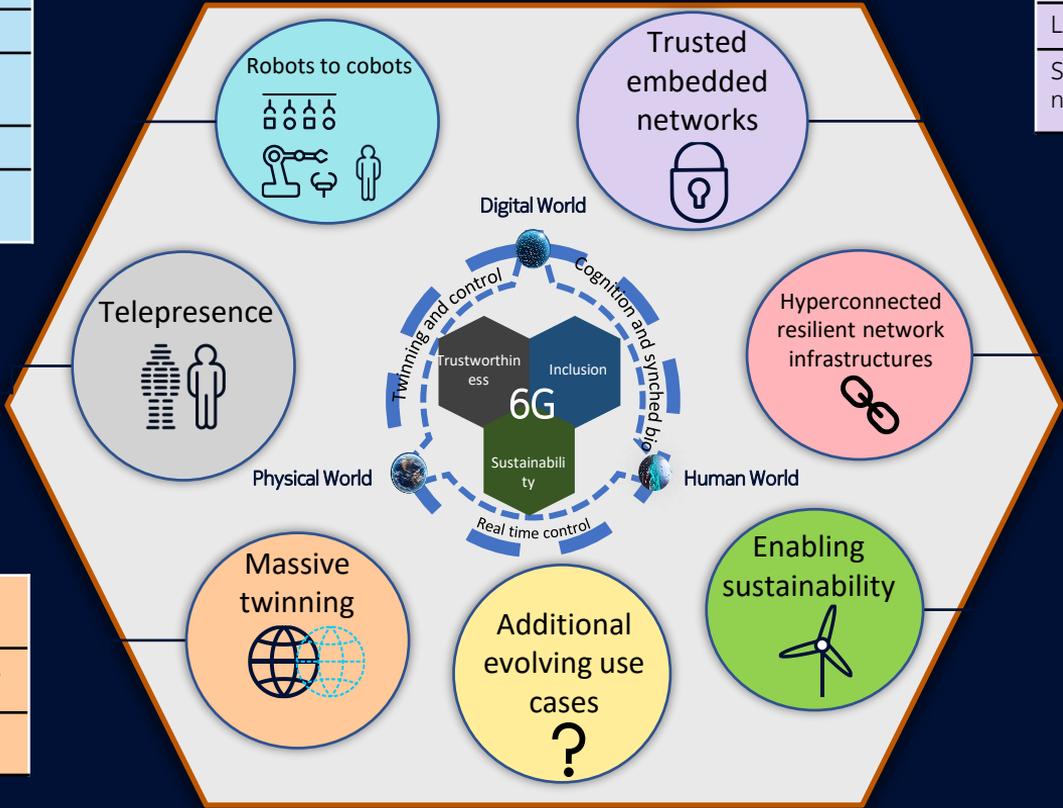


# 6G use cases

Consumer robots
AI partners
Interacting and cooperative mobile robots
Flexible manufacturing
Situation-aware device reconfiguration

Fully merged cyber-physical worlds
Mixed reality co-design
Immersive sport event
<b>Merged reality game/work</b>

Digital Twins for manufacturing
Immersive smart cities
Internet of Tags



Human-centric communications
Infrastructure-less network extensions and embedded networks
Local coverage for temporary usage
Small coverage, low power micro-network in networks for production & manufacturing

Sensor / IoT infrastructure web
<b>AI-assisted Vehicle-to-Everything (V2X)</b>
<b>6G for Defense</b>
Enhanced public protection

<b>E-health for all</b>
Institutional coverage
Earth monitor
Autonomous supply chains
Sustainable food production
Network trade-offs for minimized environmental impact
<b>Network functionality for crisis resilience</b>

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