

Giant Leap with Future X

5G evolution and beyond



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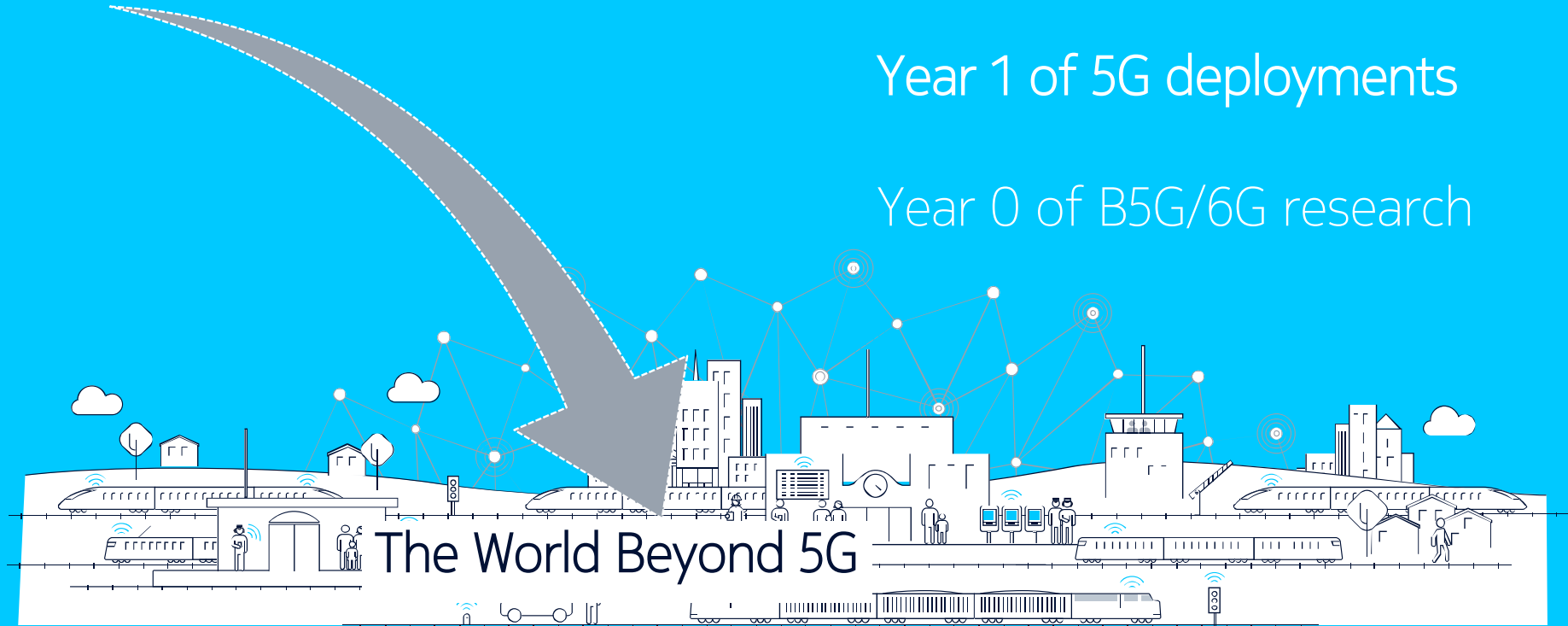
2nd Visions for Future Communications Summit
Technologies and Services Towards 6G
Networld2020, Lisbon, November 27, 2019

2019

Year 15 of 5G research

Year 1 of 5G deployments

Year 0 of B5G/6G research

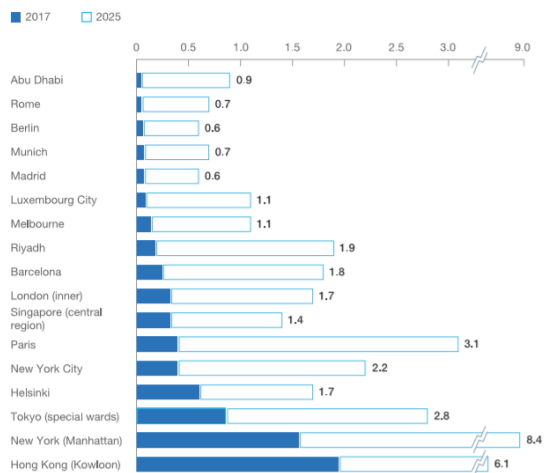


The World Beyond 5G

New digital experience defines network requirements for 5G evolution

Seemingly infinite capacity

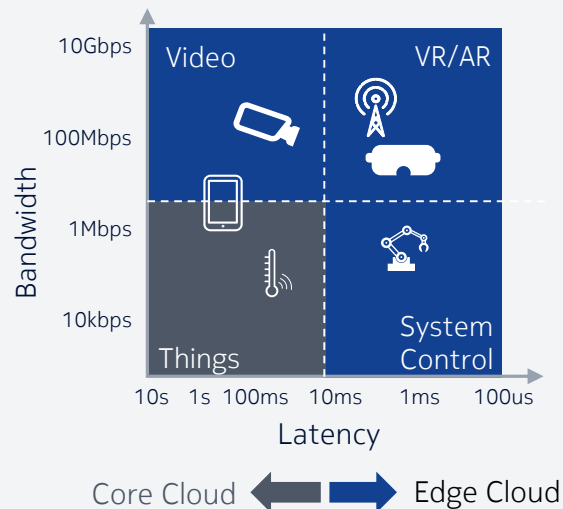
Traffic density in city area,¹
petabyte per square kilometer



¹Unless specified, excludes areas outside the smallest definition of "city," that is, "metropolitan" or "urban" areas.

Source: *The road to 5G*, McKinsey, 2018

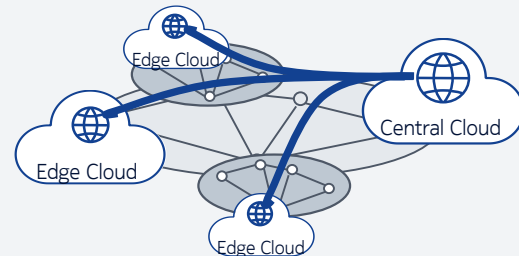
Imperceptible latency



Global-local alliance

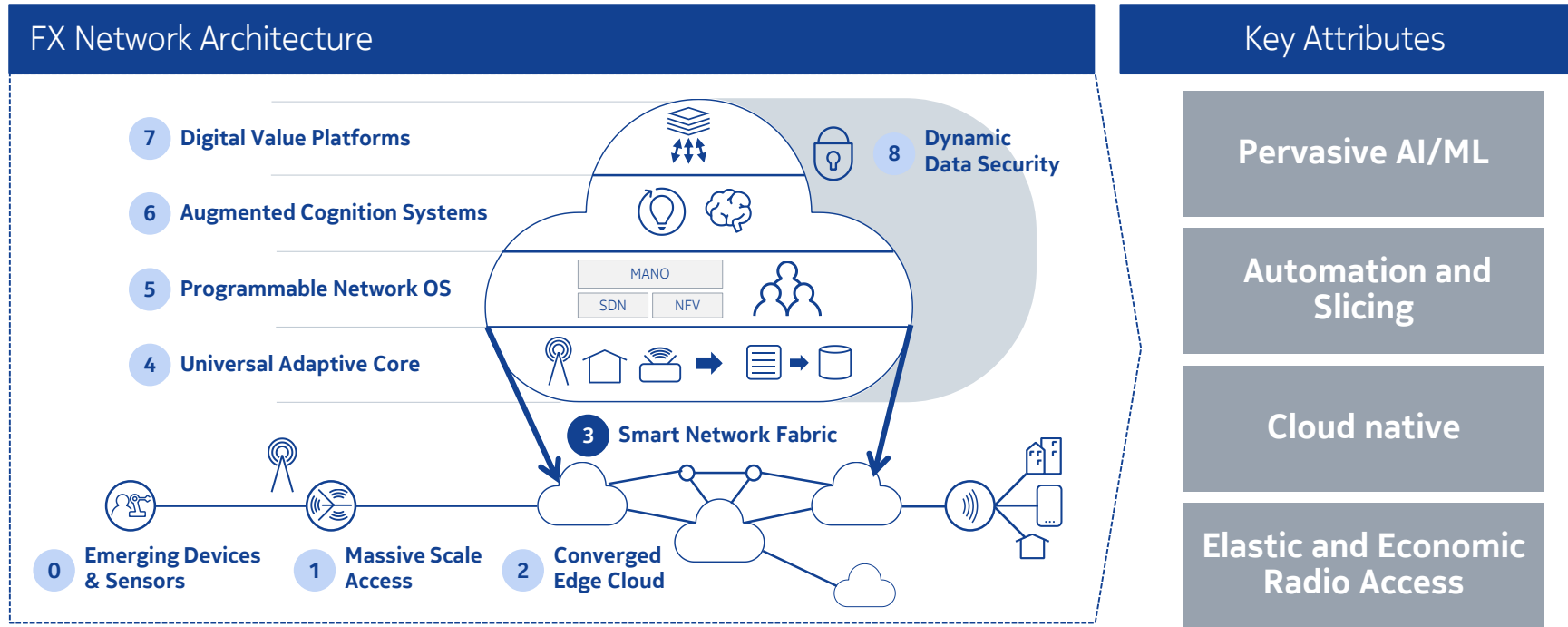
Local delivery with global reach

- New global-local value chains
- Disruptive business models
- Local service performance, efficiency and customization



100x more capacity in < 10 years

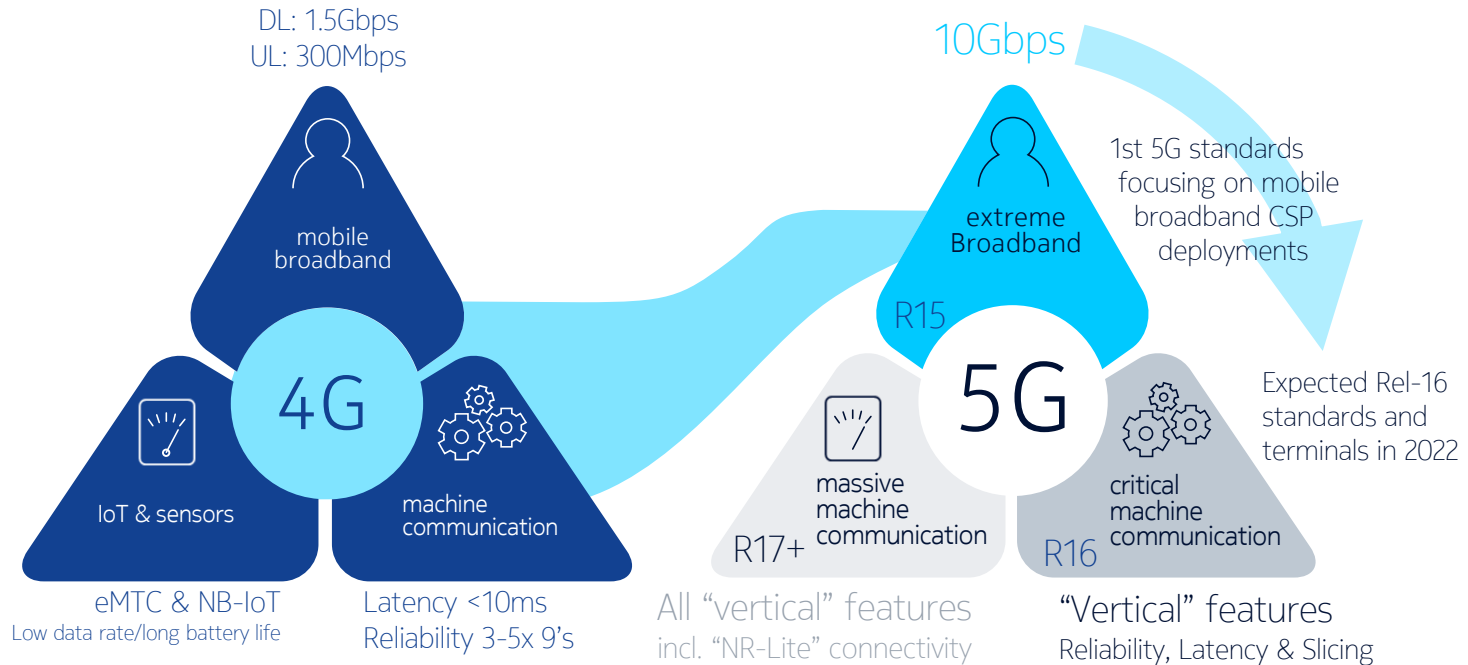
Anchoring strategies in FX network architecture, to drive new value creation



Programmable FX networks enable unique cost & service structure, driving willingness to pay

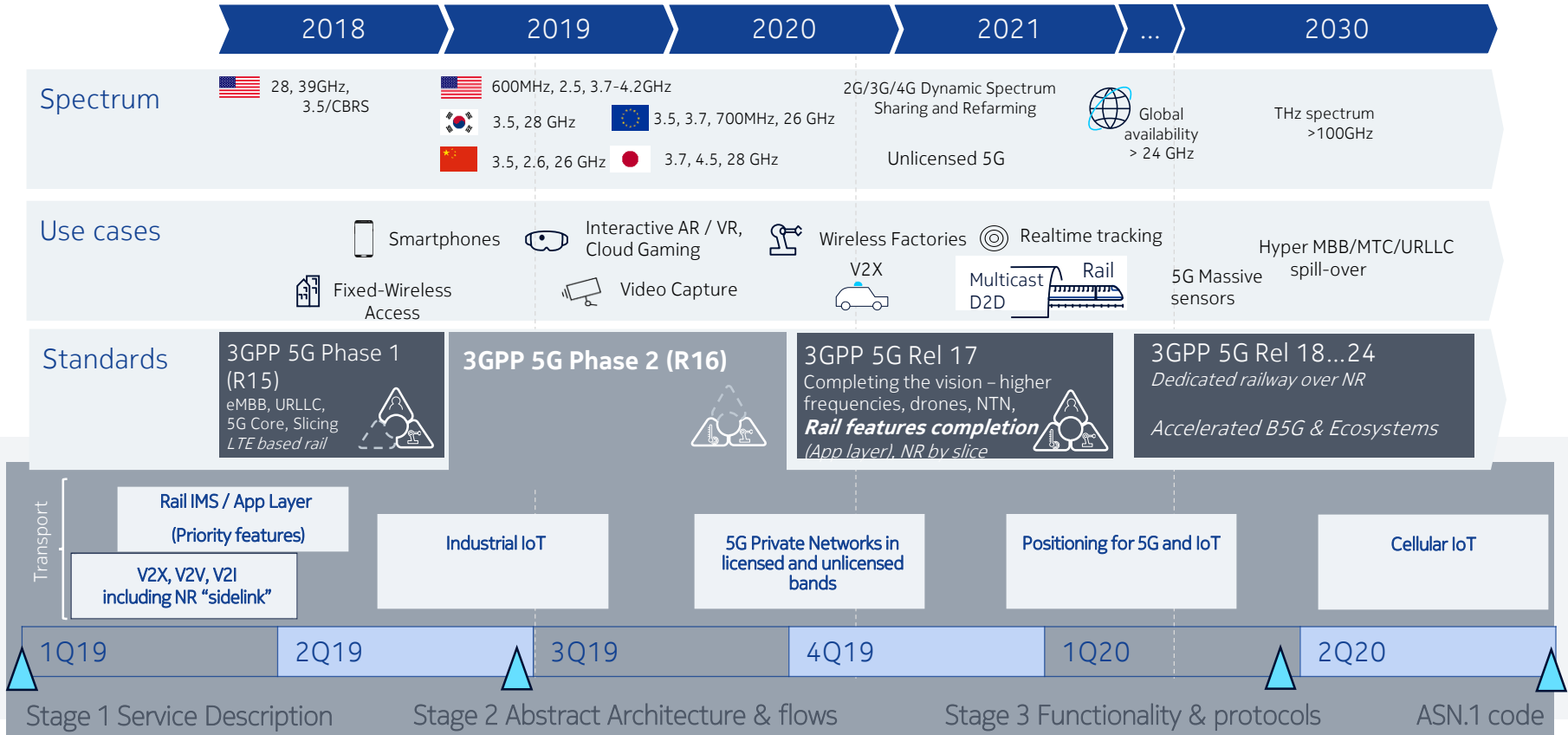
Realizing the full promise of 5G through 3GPP evolution

5G connectivity fabric builds on existing LTE deployments

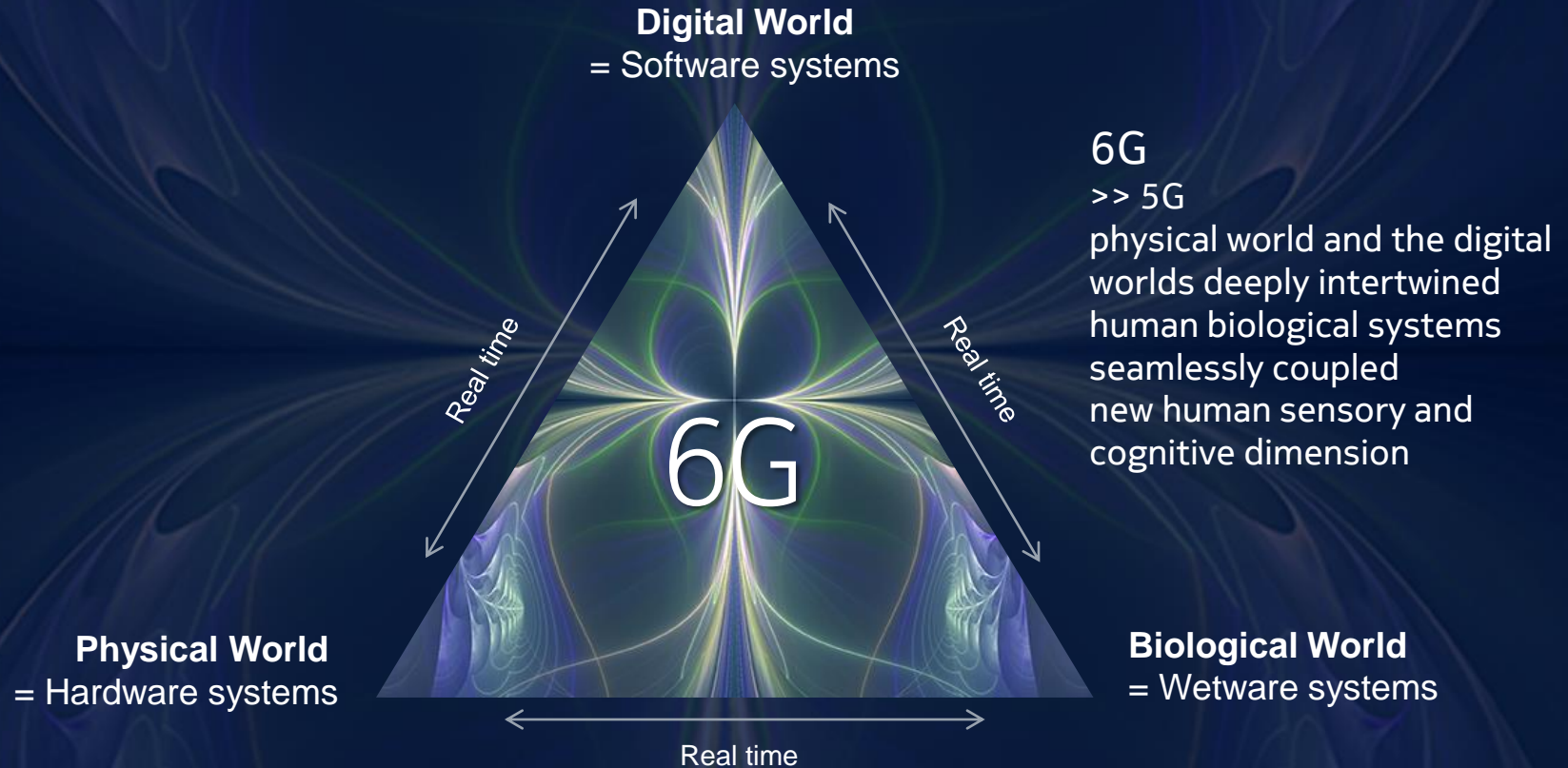


End-to-end 5G will redefine the human condition and industrial productivity paradigm

Standards and spectrum availability drive 5G use cases and deployments



The enabling foundation for the future ... need to unparallelled connectivity



Technology research domains for 6G

Enabling augmented worlds

Ubiquitous and pervasive wireless access to AI and quantum computes

Tera-bps, microsecond delay

THz comms, full duplex, M-MIMO, AI optimized networking

Enabling augmented hyper-reality with real-time audio and video overlays

Microsecond synchronicity & jitter

Dynamic Deterministic Networks as a Service (advanced TSC)

Unbreakable privacy & security with user controlled data filtering

100% K-anonymity

Formal verification security, multi-layer secure ID

5G Evolution and beyond

Transformation in Technologie und Wertschöpfung

2019

Future X architecture vision drive...
Transformed digital experience and...

Standards evolution and...

New worlds interconnected...

With Future technology enablers

The World Beyond 5G



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