

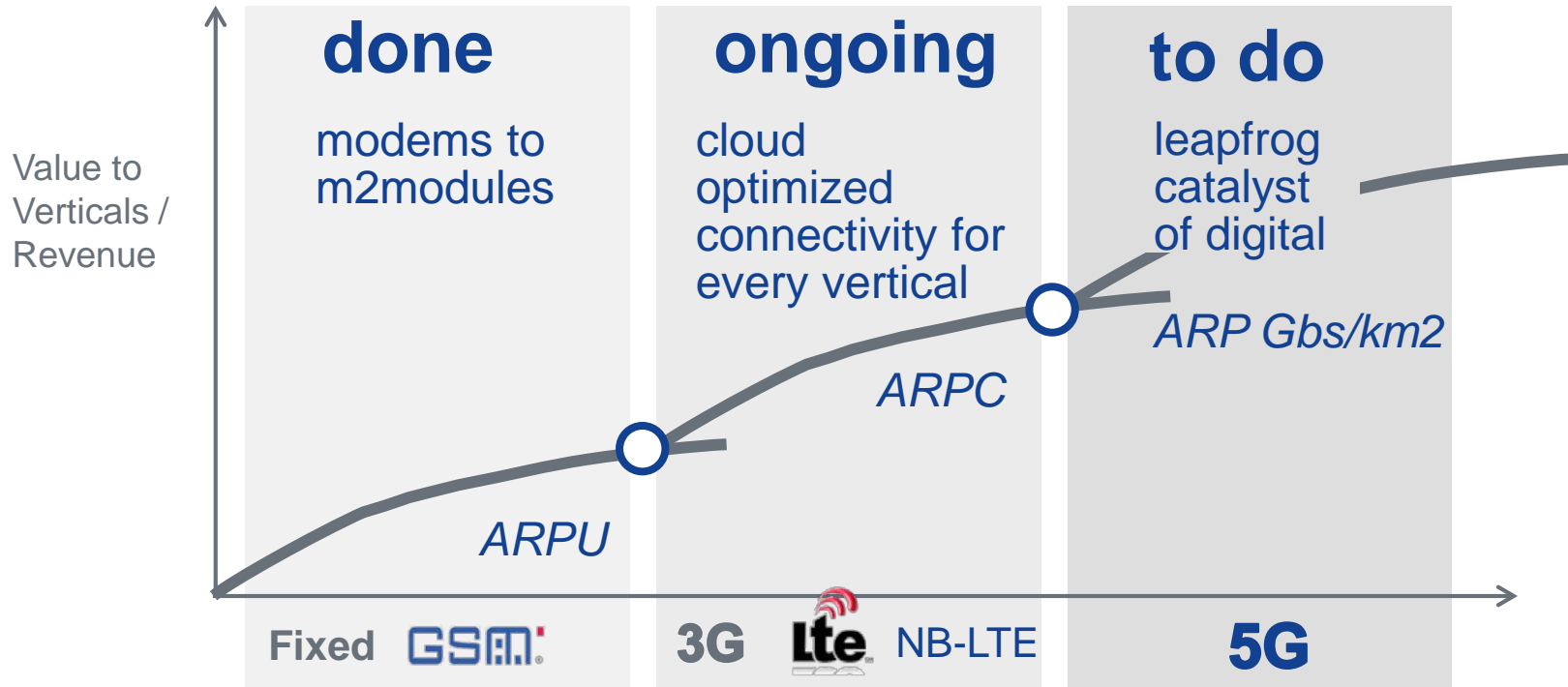
Asleep at the wheel on the road to 5G

February 23, 2016

Hossein Moiin

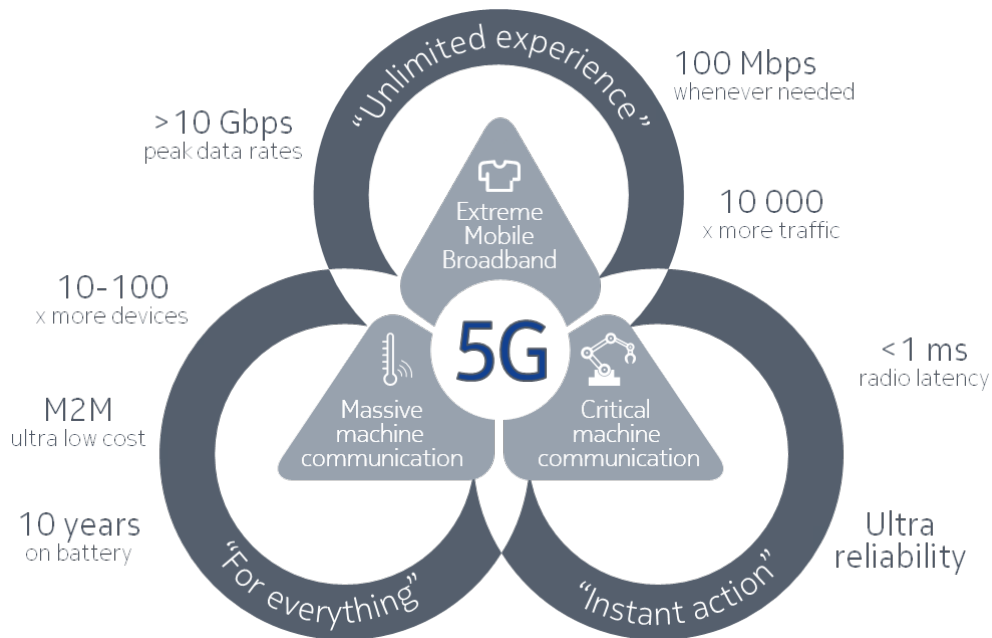
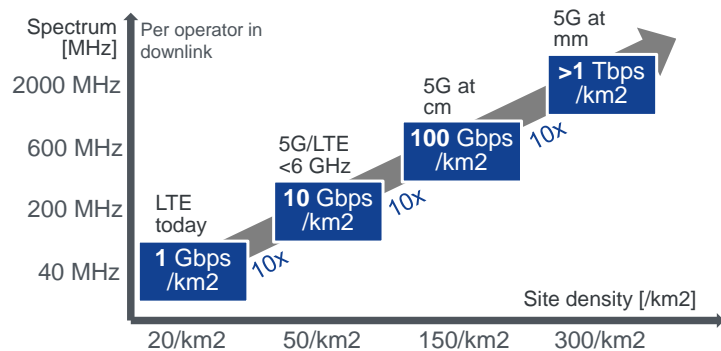
Chief Technology Officer
Mobile Networks, Nokia

Digital Transformation: 5G era leapfrog for Verticals



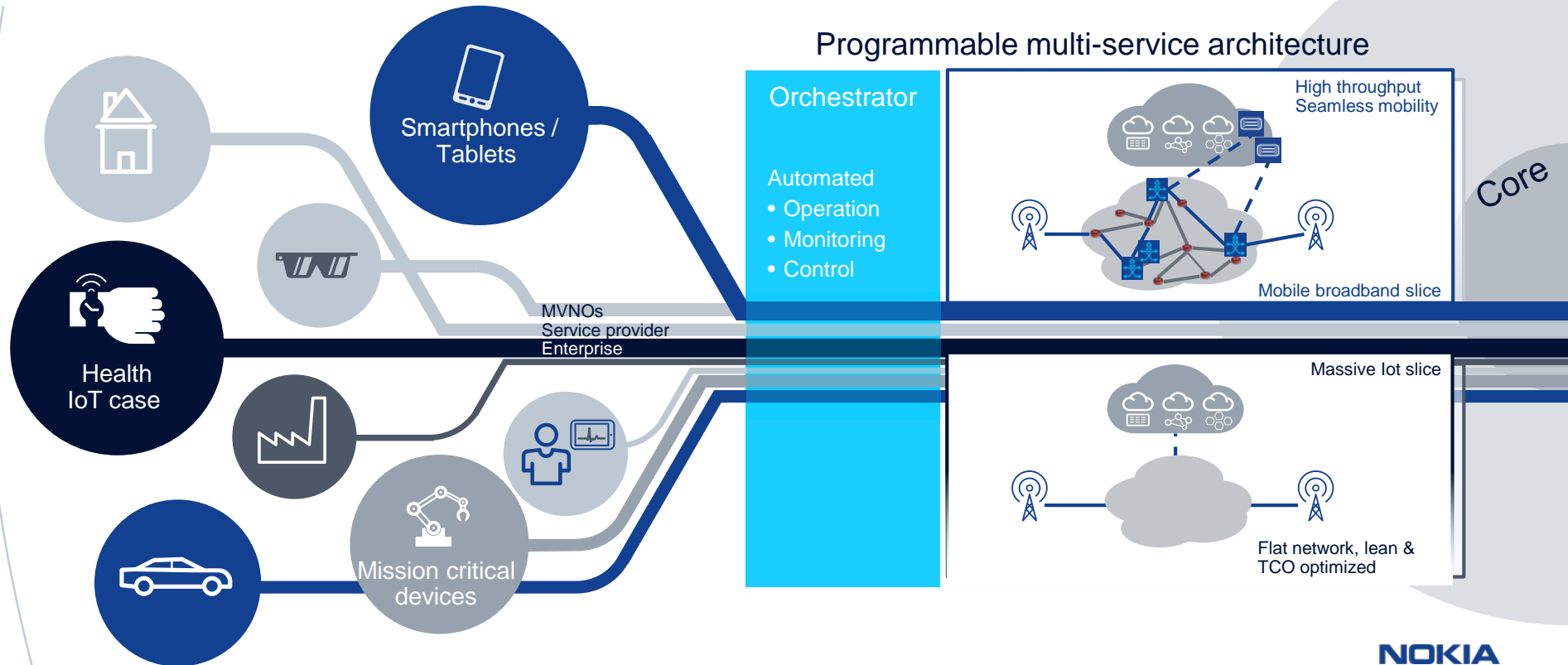
Vertical value capture from 5G Evolution and Revolution towards 1 Tbs/km2

Three-pronged requirements for 5G networks



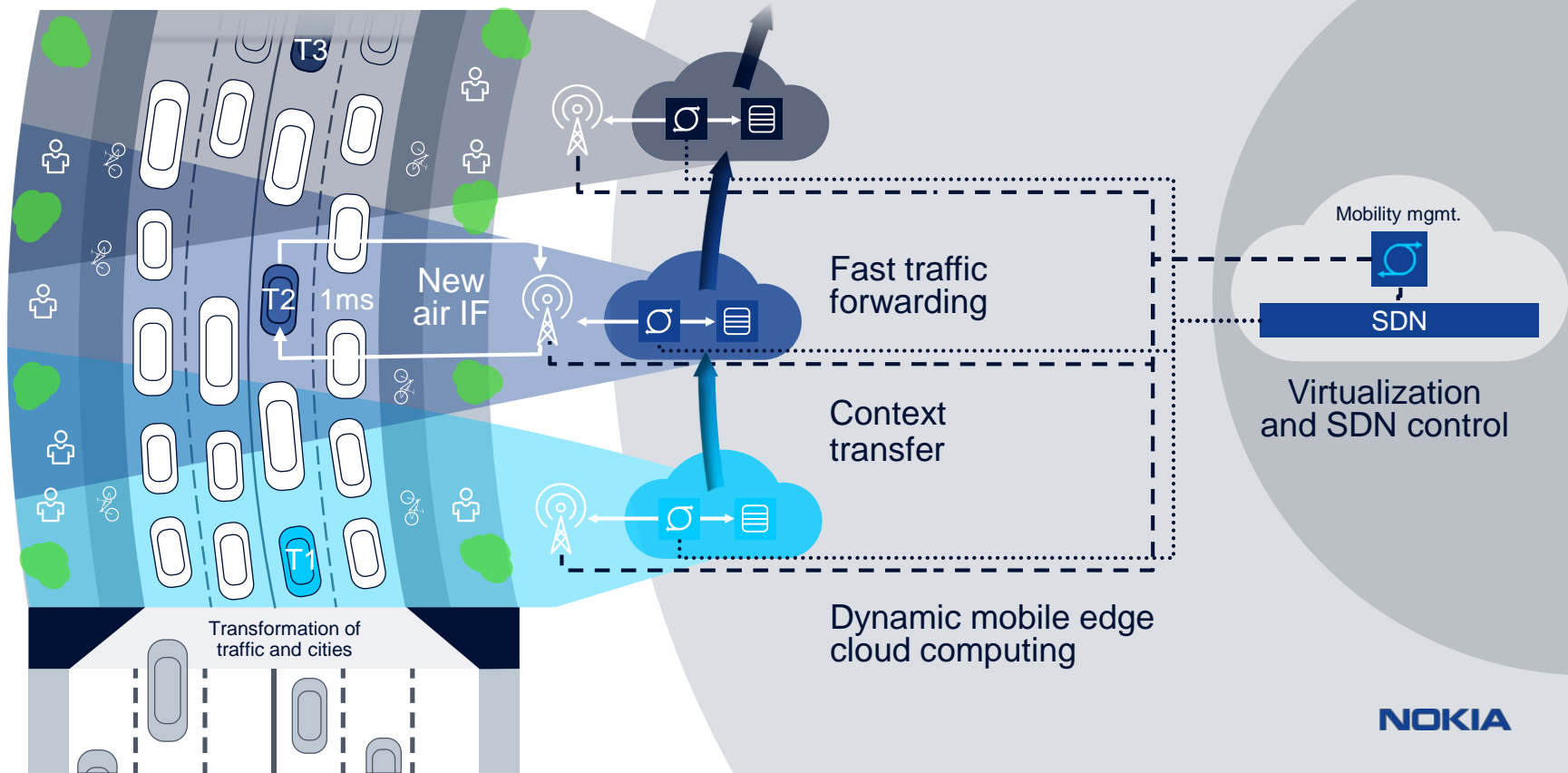
Slicing

Industry specific solutions on demand



Light traffic

Ultra low latency for fast moving autonomous systems



5G Value Leapfrog for Verticals: How to make it happen

Making it real: Nokia PoCs



Massive capacity

>30Gbps per user by blending multiple fixed and mobile technologies

mmWave radio

Extreme broadband at high frequencies

Multi connectivity

5G in real networks, >100Mbps anywhere

Massive connectivity

>1Mill connections in single cell

Stadium experience

Fast interactive multi cast

5G radio on commercial platform

Virtual Reality collaboration

Autonomous driving

Virtual zero latency

- @SKT
- 20.5Gbps over the air for 3D hologram
- @DocoMo
- 5G mmWave system
- @CMCC
- Industry 4.0 robot collaboration
- @EU / 5G PPP
- METIS II, NORMA



5G network operations

Automation and QoE management

Network slicing

Network as a Service for multiple industries

Digital A9 motorway test bed

Nokia MWC'16 5G showcases

NOKIA