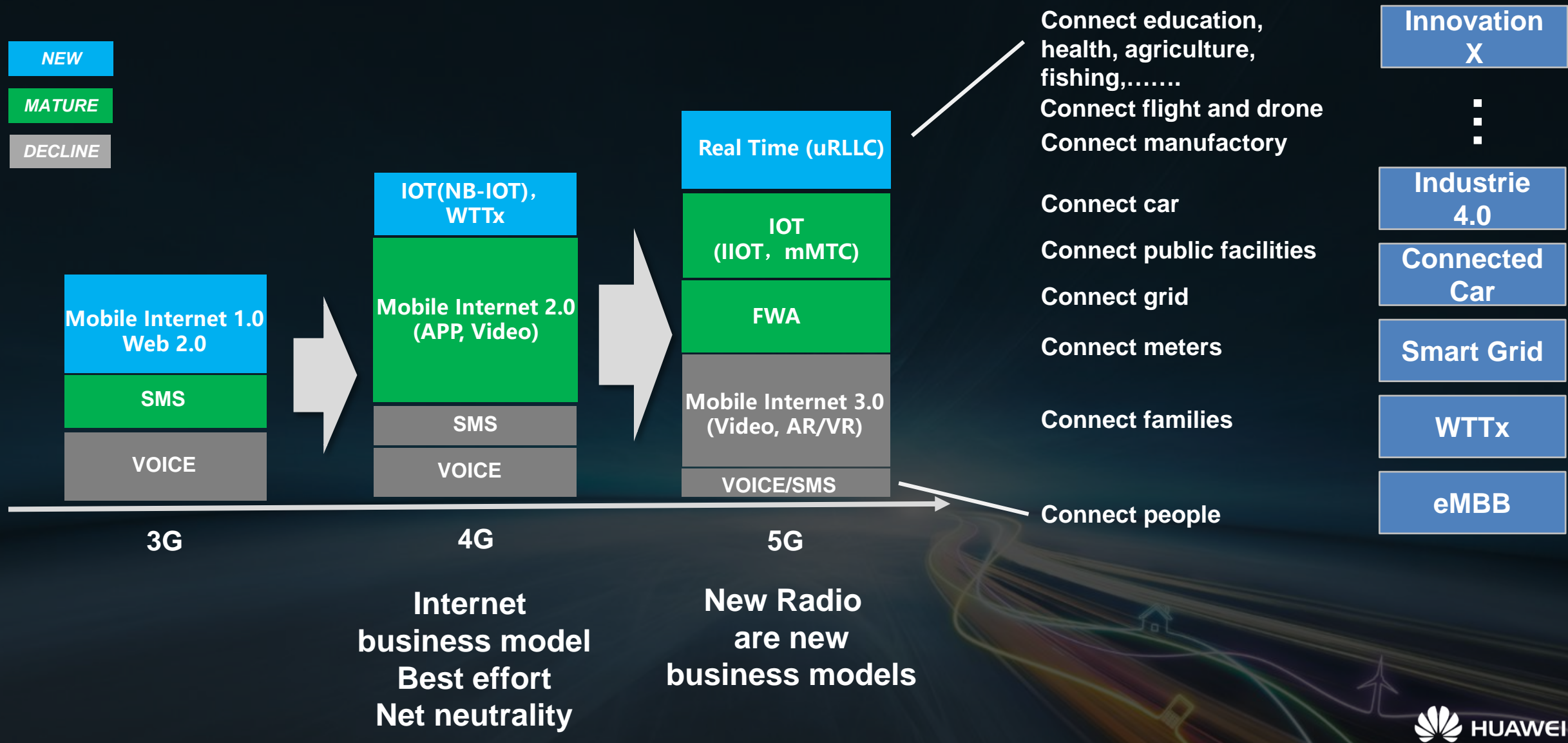


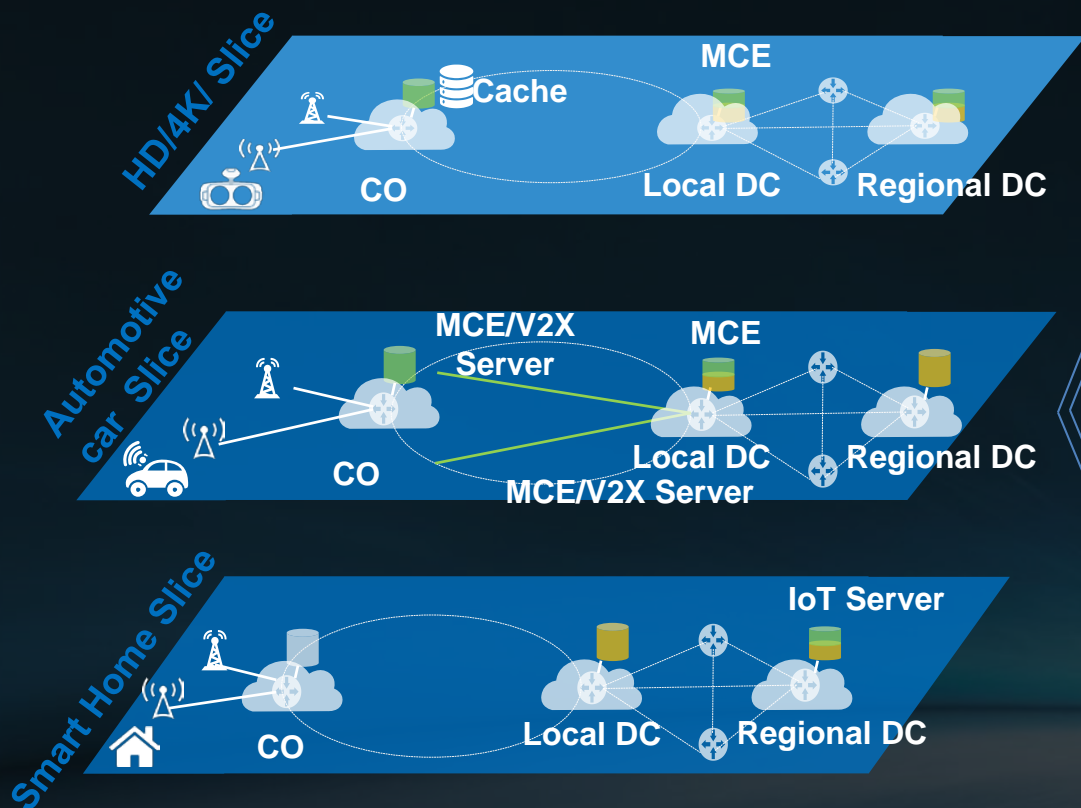
5G – Value Creation

Artur Wachtel

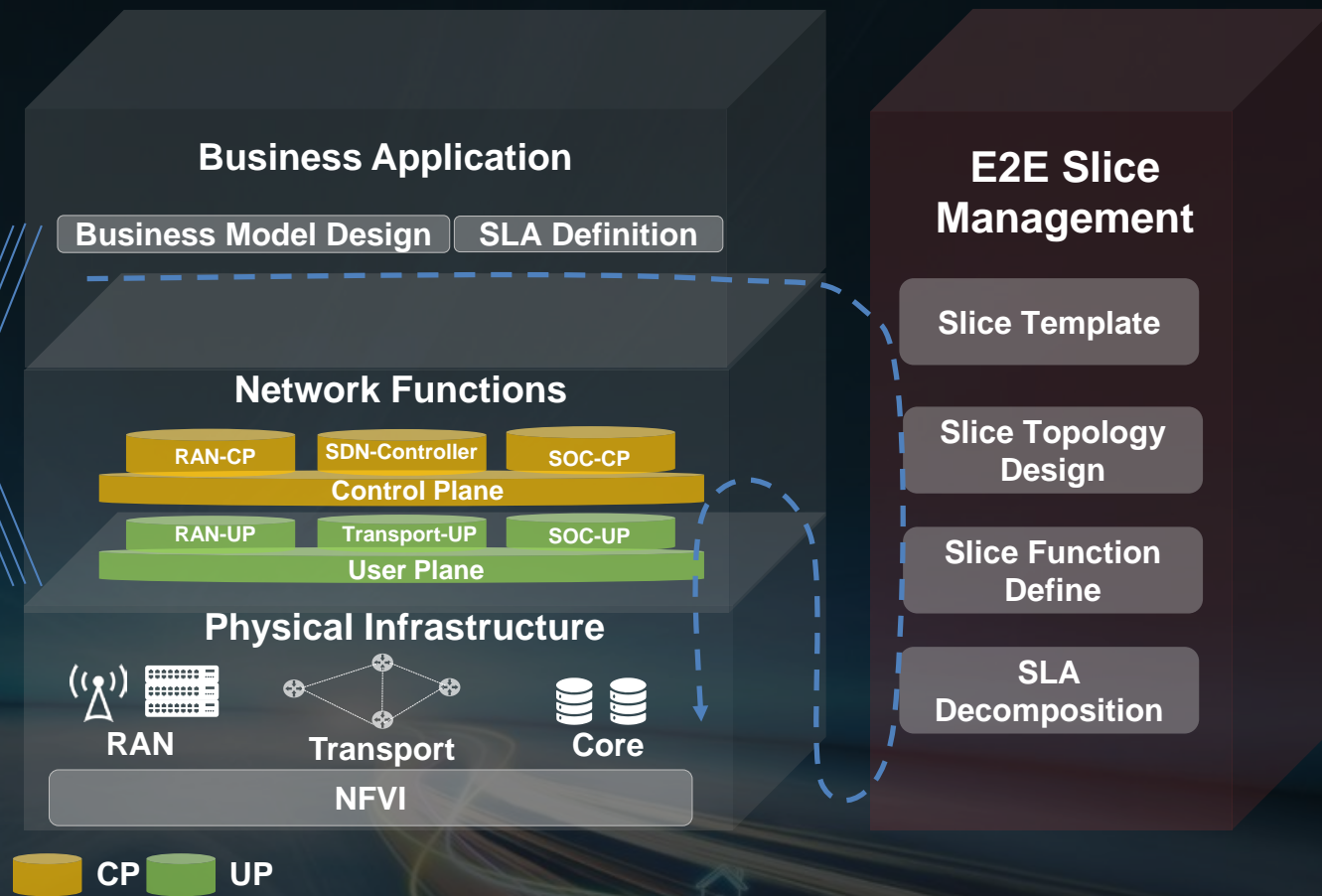
5G Brings New Opportunities



Fulfill Diversify Business Requirements with E2E-Slicing

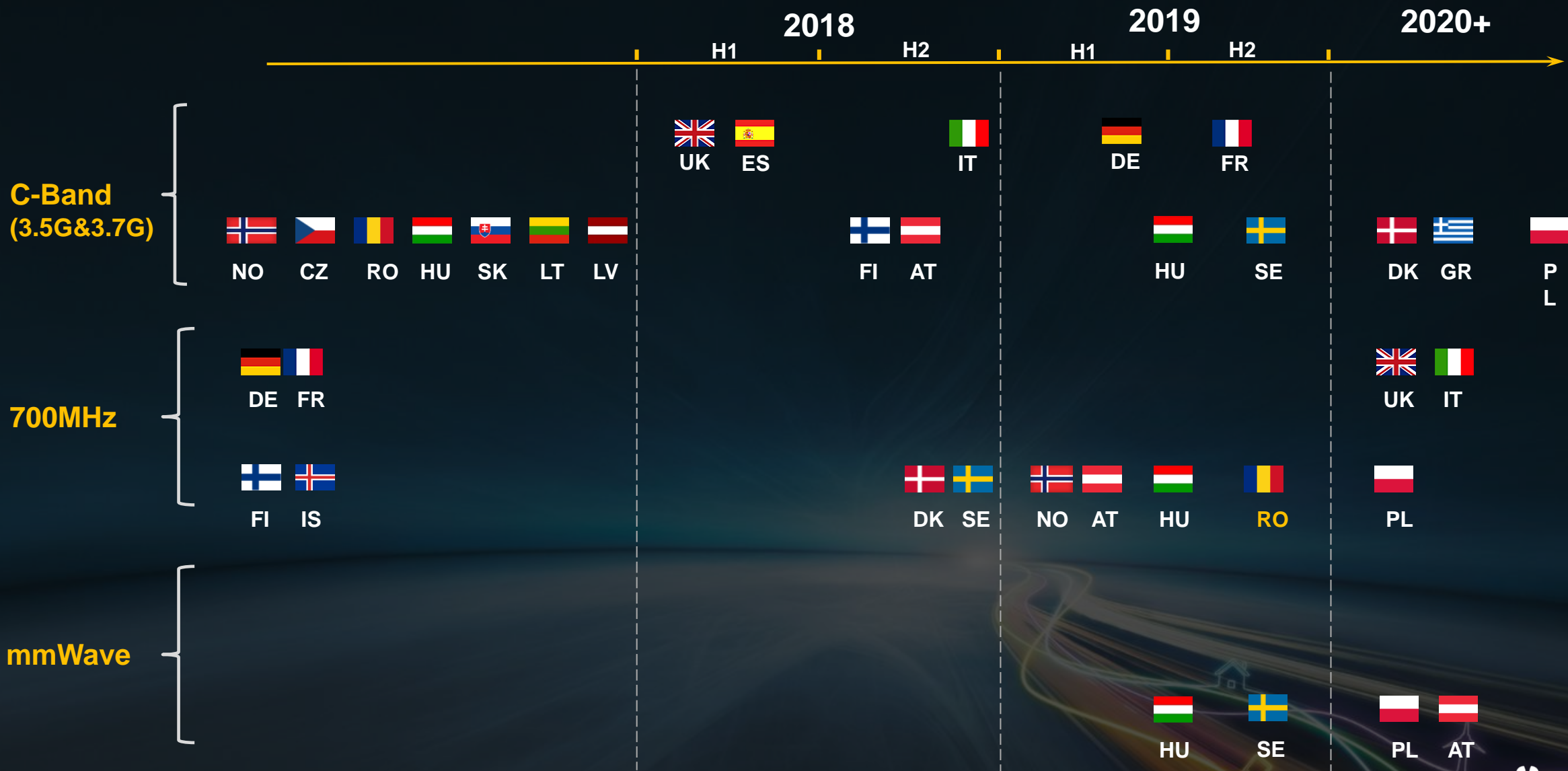


Adaptive New Radio and Topology as a Service



Cloud-Native Architecture & Internet Architectural Operation

European 5G Spectrum Overview: C-Band & 700MHz & mmWave



360° video VR – real content generated by user



live streaming or broadcasting



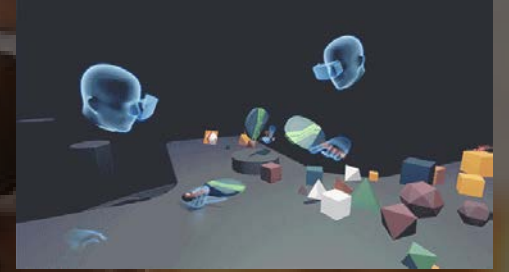
Computer Graphics (CG) VR – virtual content generated by computer



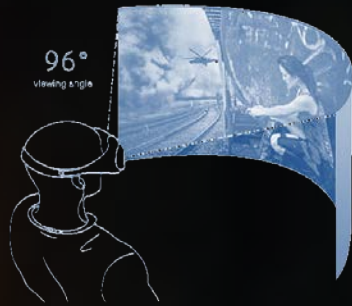
education



social network

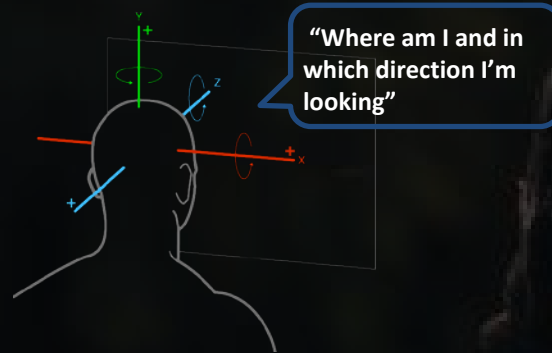


gaming...



Video + Audio
surrounding experience

~ 40mbps



Immersive + Interactive
experience

100m ~ 9.4Gbps

VR/AR, UHD, 4K
Will drive the demand for
higher data rates and more
volume

Fixed Wireless Access

75%

Home with Broadband

By 2025

20%

Home with FWA

By 2025

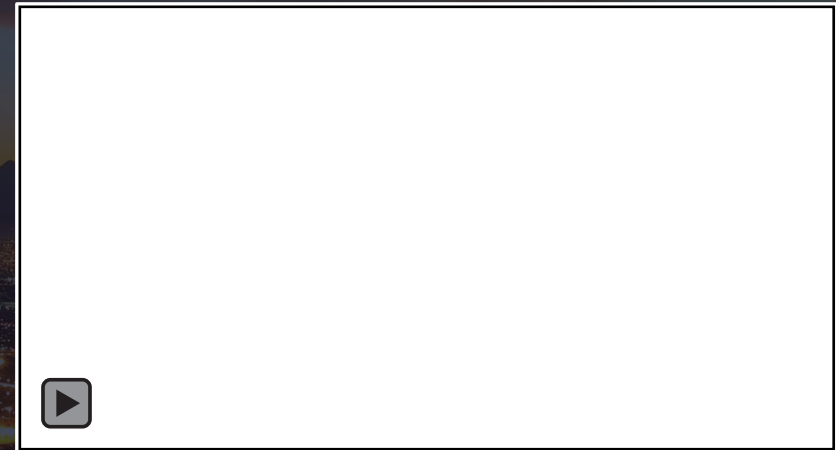
30%

5G Home with Gbps Broadband

By 2025

Source: Huawei GIV

FWA provides **Fiber like** home broadband access
Enabling **4K IPTV**



Home Entertainment

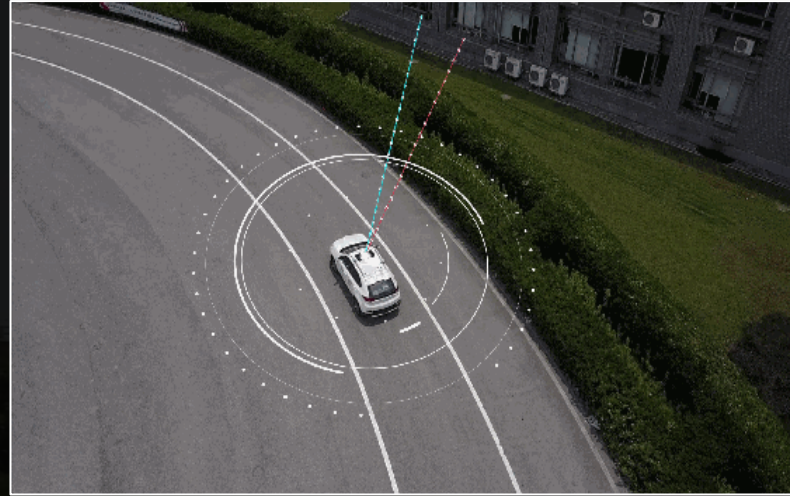


Home Office

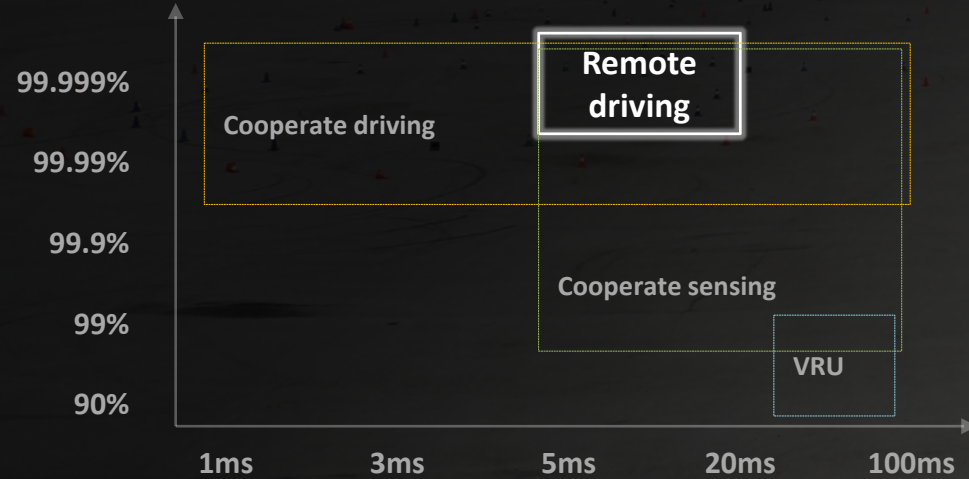
5G Automotive – the car : a smart phone on wheels



中国移动
China Mobile



Scalable Joint KPIs for Connected Car

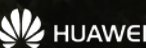


Automotive Association

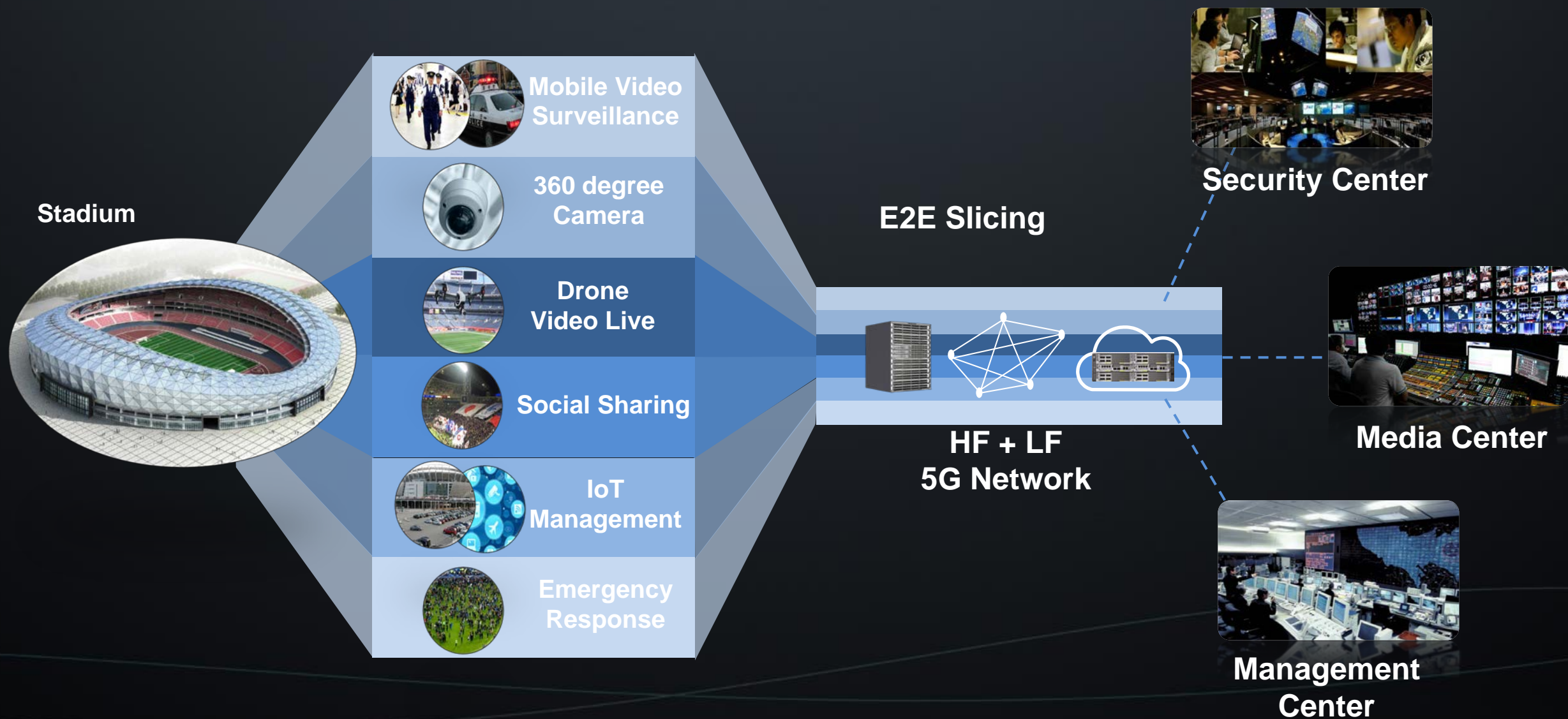
Founded in Sep 27, 2016



Automotive vs Telecommunications
Safety vs Commercial
ITS vs. IMT

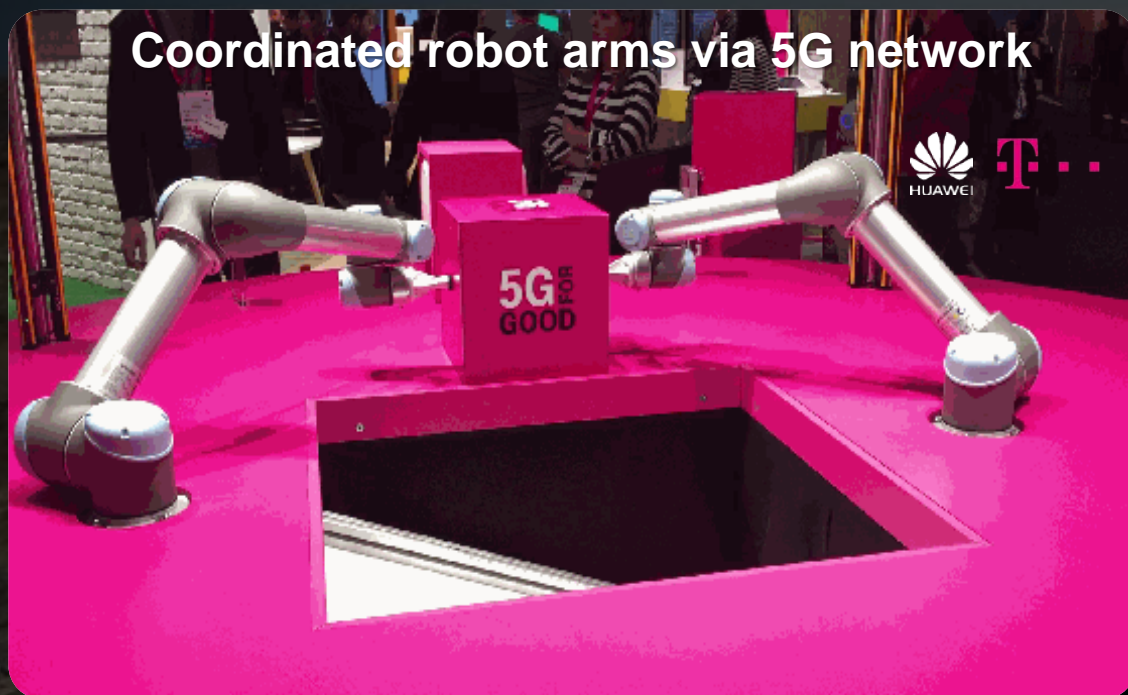


5G Stadium: the Olympic Games in Tokyo 2020



5G will Make Factories Smarter and More Efficient

Coordinated robot arms via 5G network



Loading work at port



Plant manufacturing



Network E2E
Latency

5~100_{ms}

5G Enabled Output in Manufacturing by 2035:

\$3.4 Trillion

Source: IHS The 5G Economy Report, 2017

5G for I4.0 Solutions

PLATFORM
INDUSTRIE4.0



Factory Automation

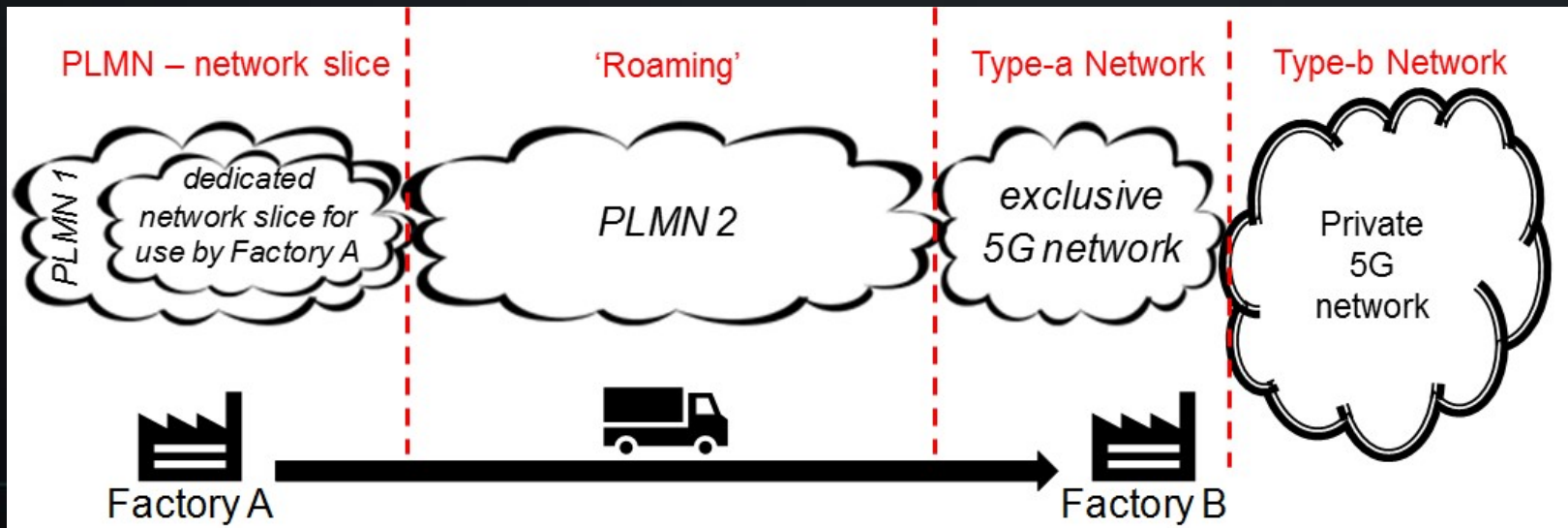


Adaptive Production, Logistics



VR assisted Assembly

smartFactory



- Private network on dedicated frequencies and slice
- Integration of logistics, suppliers and customers

Rotterdam Harbour

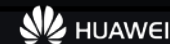


160 000 km of pipelines

- Large scale of wireless sensors
- Ultra High Definition (UHD)-cameras
- Mobile inspection 5G robot
- industrial maintenance AR

In the Rotterdam harbour, KPN, Shell, ABB , ExRobotics, Accenture and **Huawei** have tested the first industrial 5G-applications with the new generation of mobile networks.

5G



Thank you!