



5G Automotive Association, **pioneering digital transformation** in the **automotive industry**

Thierry E. Klein, PhD
Vice Chair, 5GAA Board
Head of BR Lab, Nokia Bell Labs

Learn more at
WWW.5GAA.ORG

5GAA brings together automotive, technology and telecommunications companies to work closely together to develop end-to-end solutions for future mobility and transportation services



AUTOMOTIVE INDUSTRY

Vehicle Platform, Hardware
and Software Solutions



TELECOMMUNICATIONS

Connectivity and Networking
Systems, Devices and
Technologies

End-to end-solutions for intelligent
transportation, mobility systems
and smart cities

5GAA: A Global Cross Industry Association

September 2016

- “Audi, BMW Group, Daimler AG are teaming with Ericsson, Huawei, Intel, Nokia, and Qualcomm to create the 5G Automotive Association (5GAA), which will help develop, test, and promote 5G standards”
- “Scope of the alliance is focused on bringing connectivity solutions to market, addressing technical, business, and regulatory challenges”



Q2 2018

- ▶ 5GAA unites 80+ members working together to:
 - Deliver innovation for road safety, connectivity and sustainability
 - Accelerate cooperative, connected, automated mobility
 - Develop 360° solutions for SMART mobility services
 - Pave the way towards 5G mobility

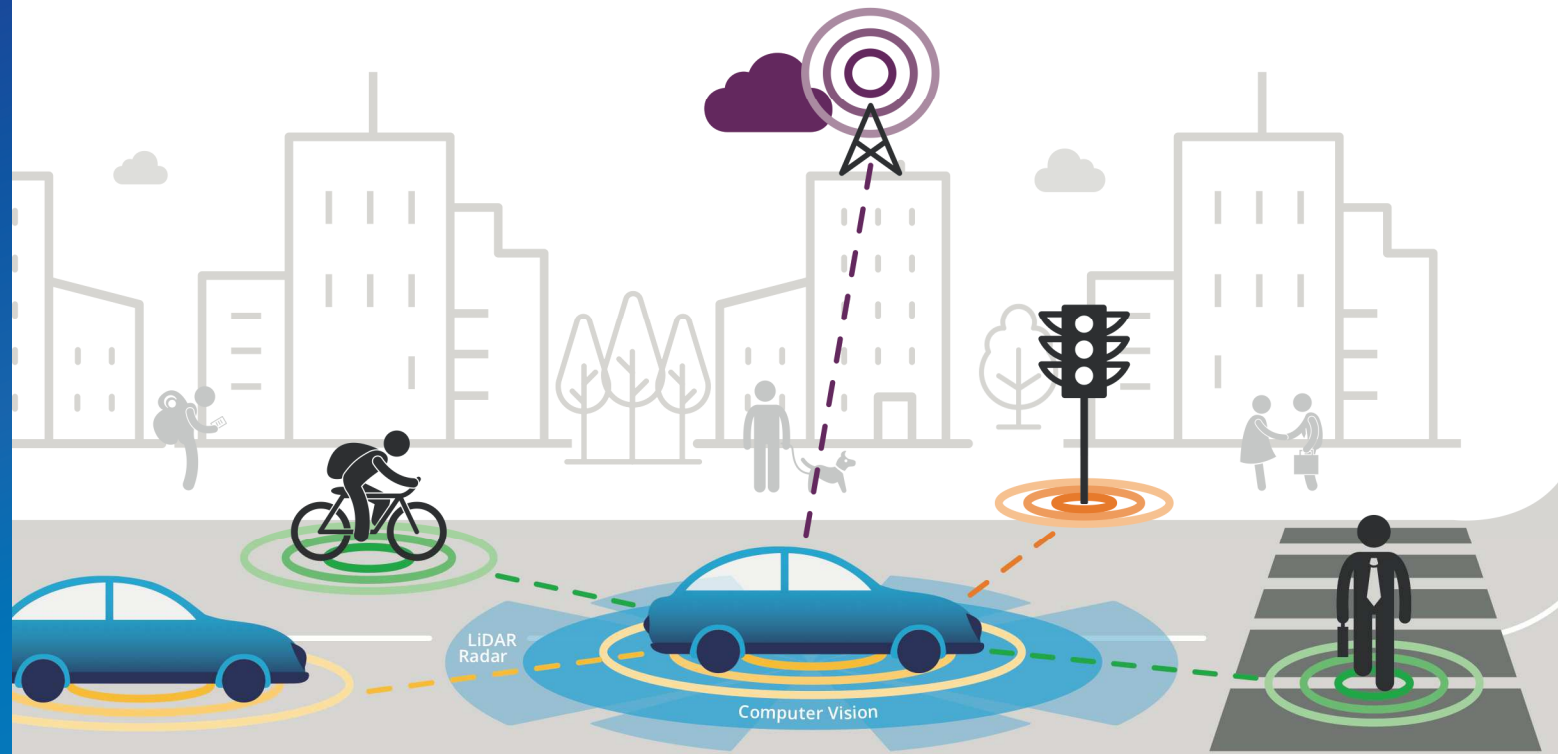


What is V2X (Vehicle to Everything)?

Comprehensive
vehicle and traffic
safety

Accelerates
autonomous driving

Allows vehicles to
communicate with
each other **V2V**
and the wider
transport ecosystem
V2N, V2P, V2I



Why Cellular V2X (C-V2X)?

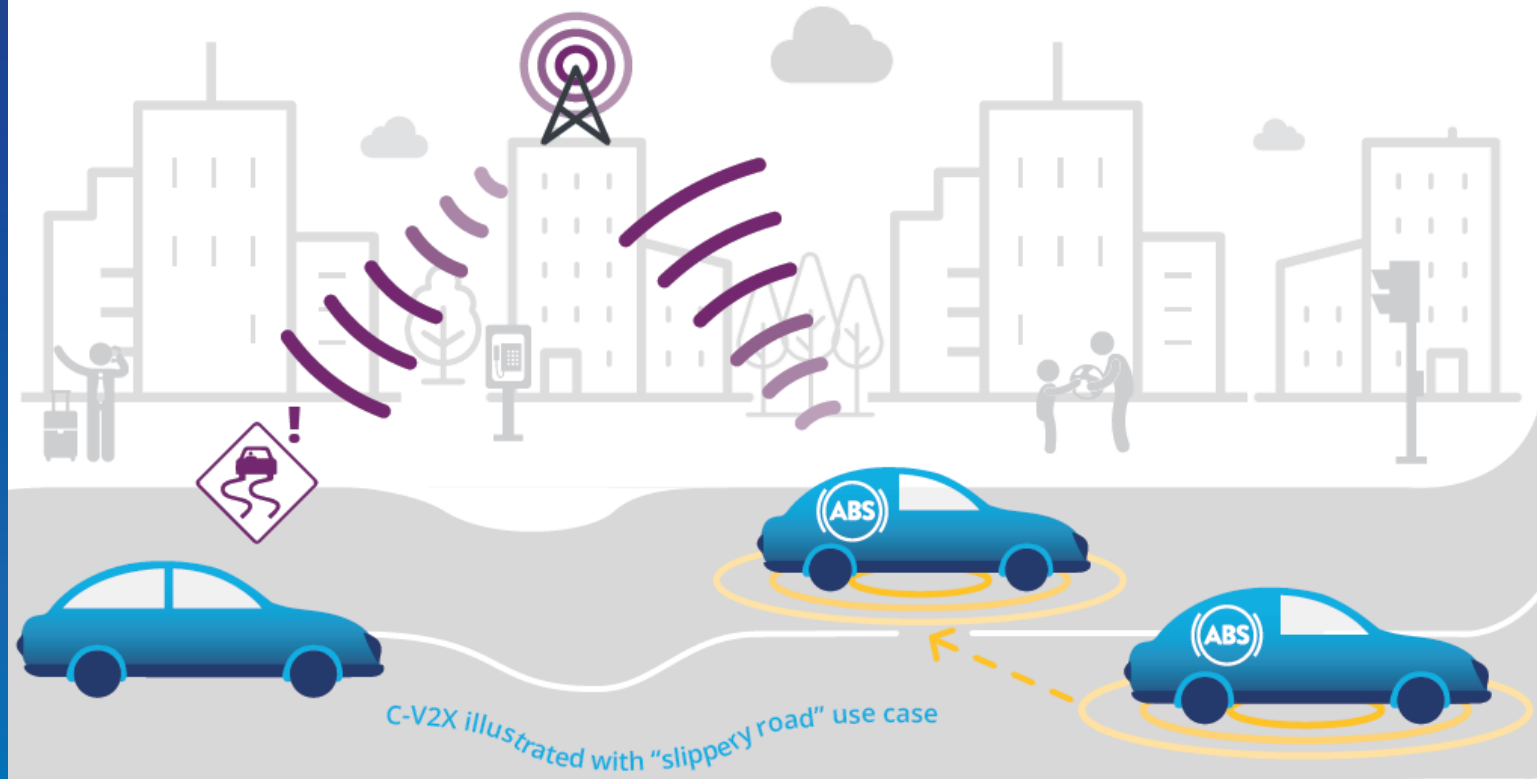
C-V2X is a unified technology platform including both:

- Short range direct communications (LTE-V2X PC5)

Low-latency, direct safety, communication to work without network coverage

Can operate without a SIM or network assistance

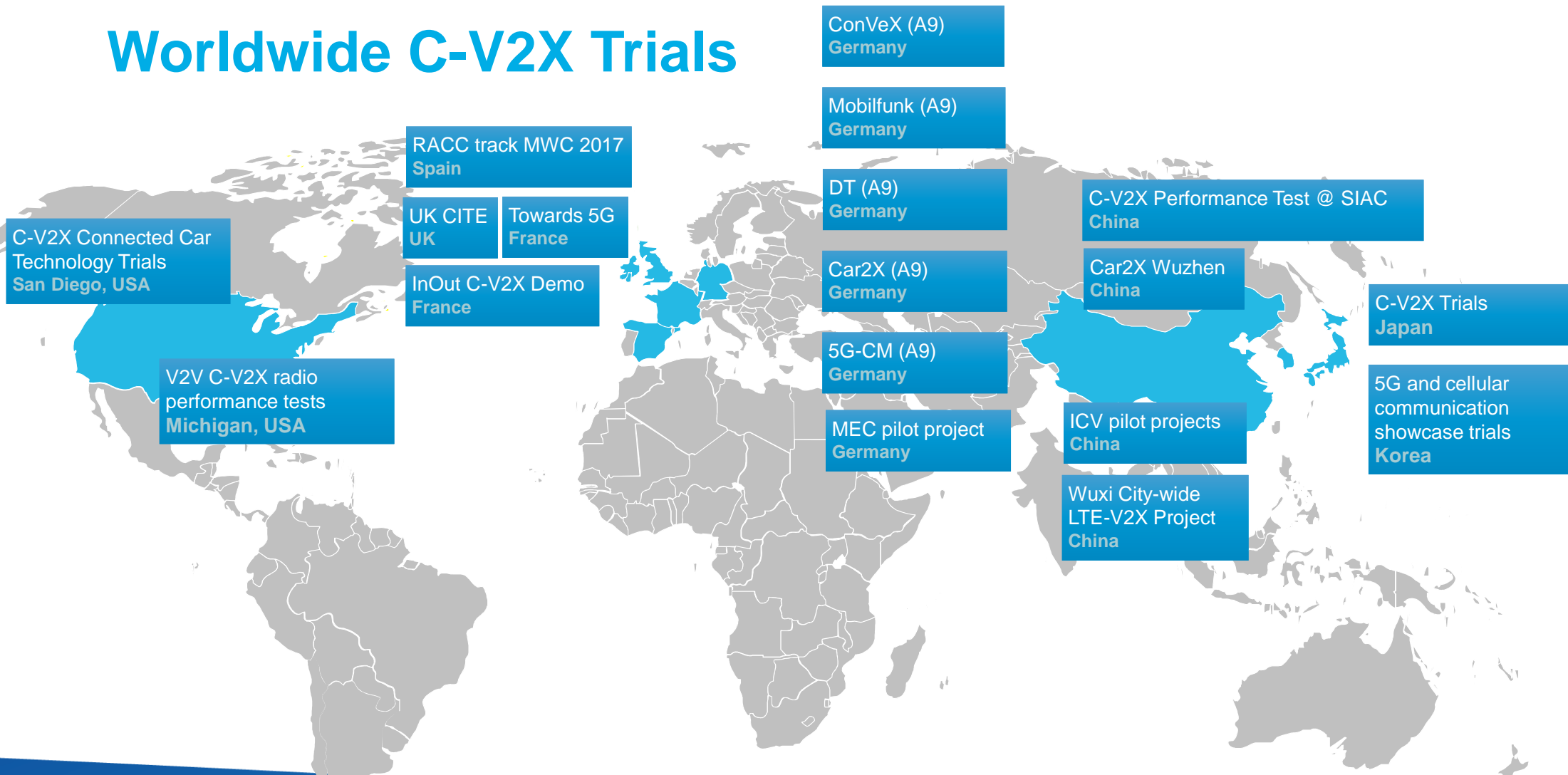
- Long range cellular network communications (LTE-V2X Uu)



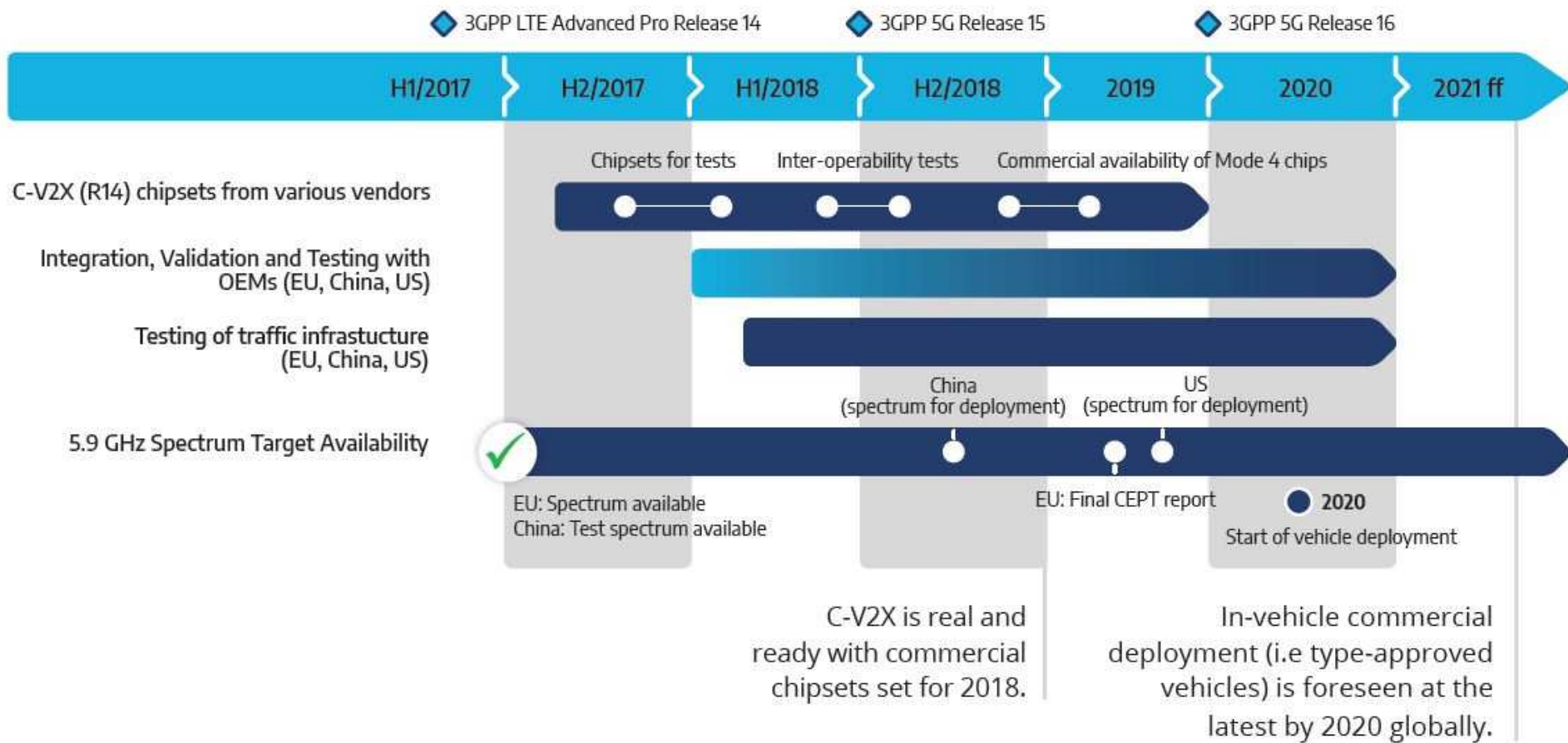
C-V2X long range cellular network communications

C-V2X short range direct communication

Worldwide C-V2X Trials



Timeline for Deployment of C-V2X (V2V/V2I)



5GAA Strategic Vision

