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

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 +87 members (June 2018) working together to:
  - Deliver innovation for road safety, connectivity and sustainability
  - Accelerate cooperative, connected, automated mobility
  - Develop 360º 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)?

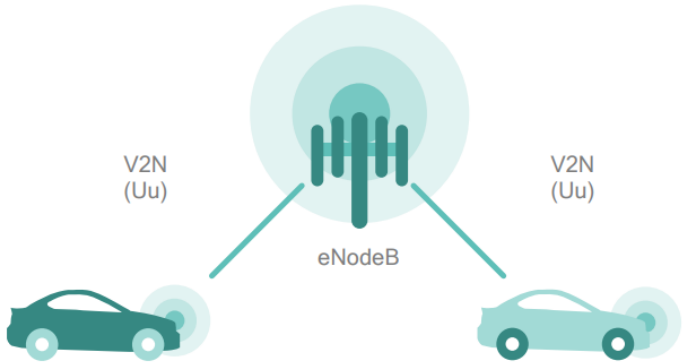
C-V2X defines two complementary transmission modes

Network communications

V2N on “Uu” interface operates in traditional mobile broadband licensed spectrum

Uu interface

e.g. accident 2 kilometer ahead

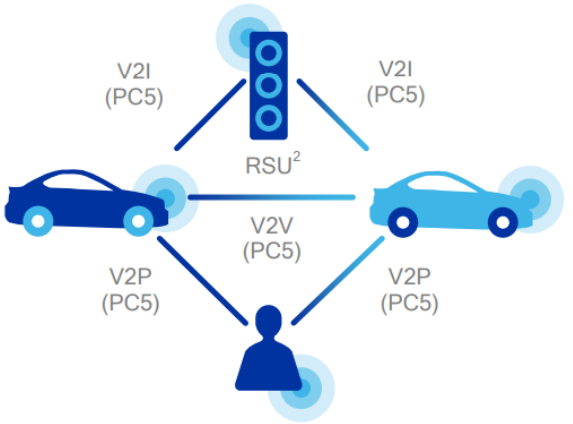


Direct communications

V2V, V2I, and V2P on “PC5” interface[1], operating in ITS bands (e.g. ITS 5.9 GHz) independent of cellular network

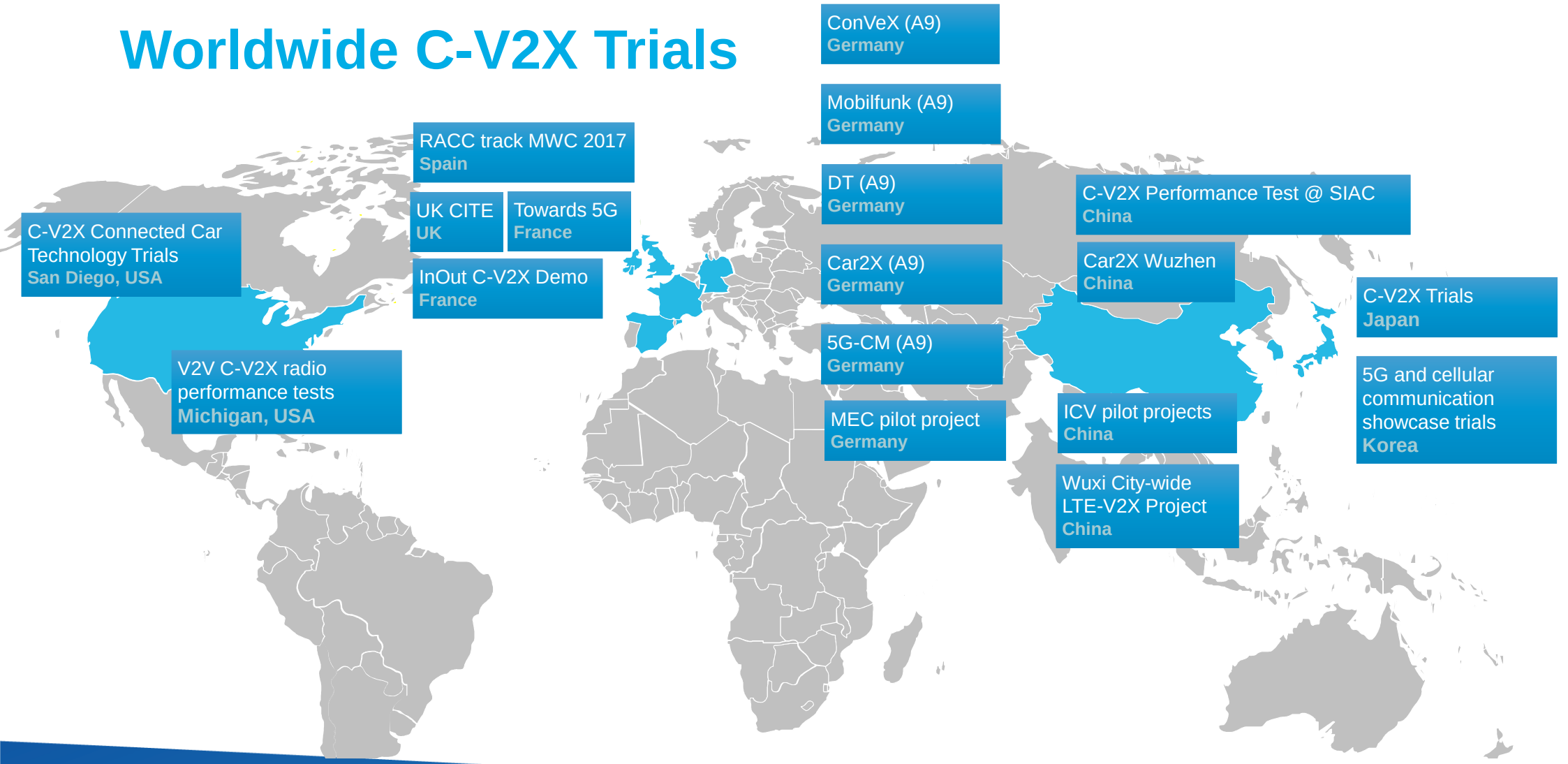
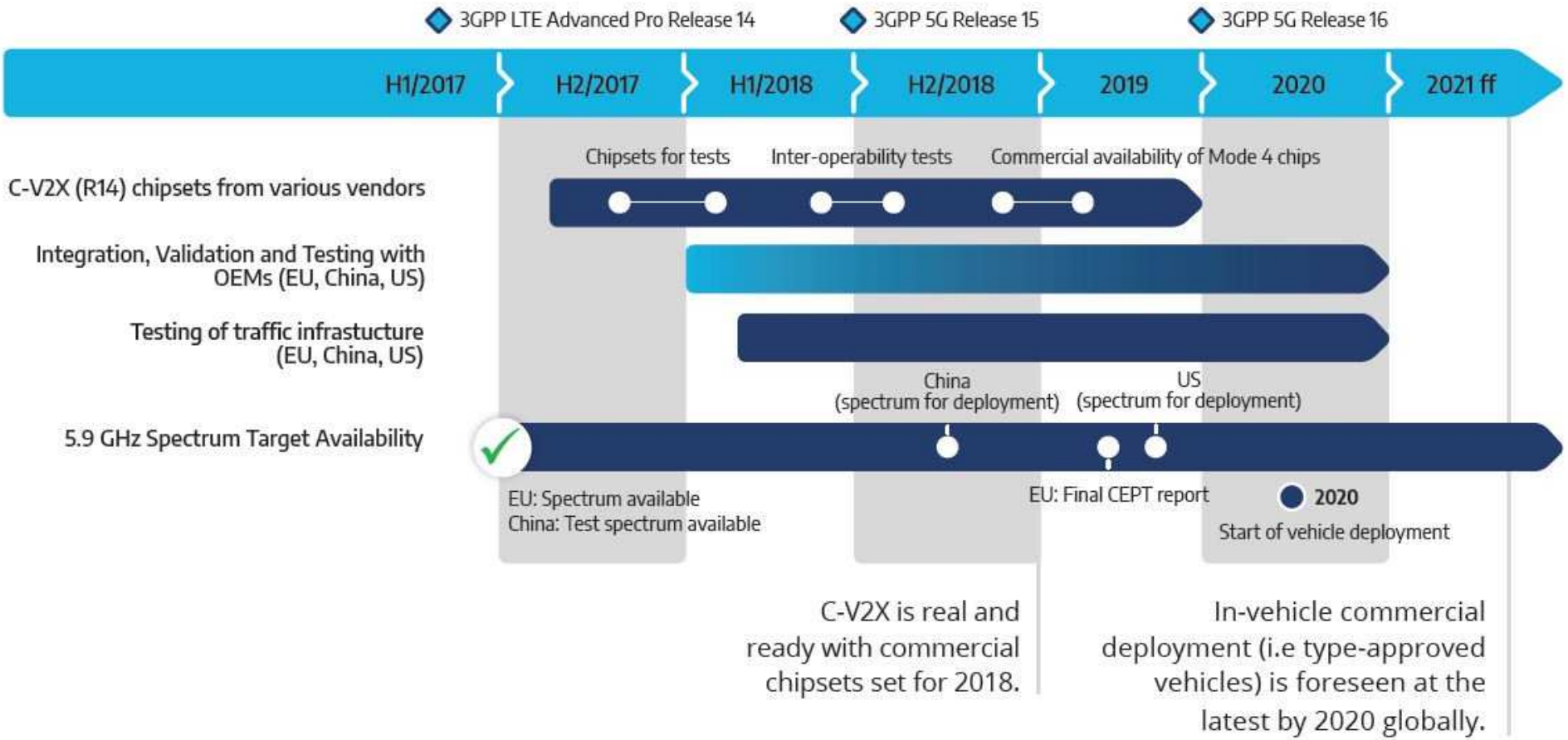
PC5 interface

e.g. location, speed



1. PC5 operates on 5.9GHz; whereas, Uu operates on commercial cellular licensed spectrum 2. RSU stands for roadside unit.

Worldwide C-V2X Trials



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