

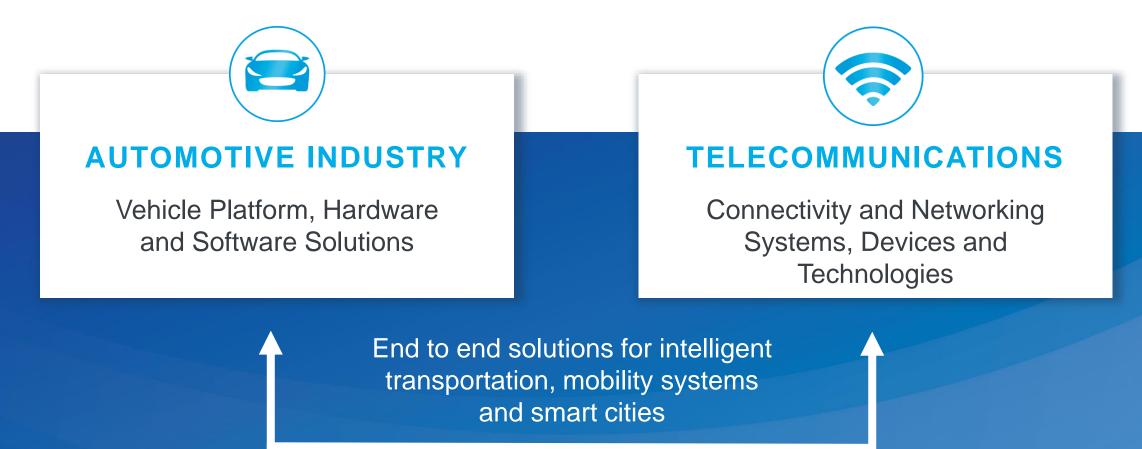
5G Automotive Association, pioneering digital transformation in the automotive industry

Christoph Voigt, Chairman 5GAA

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



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"



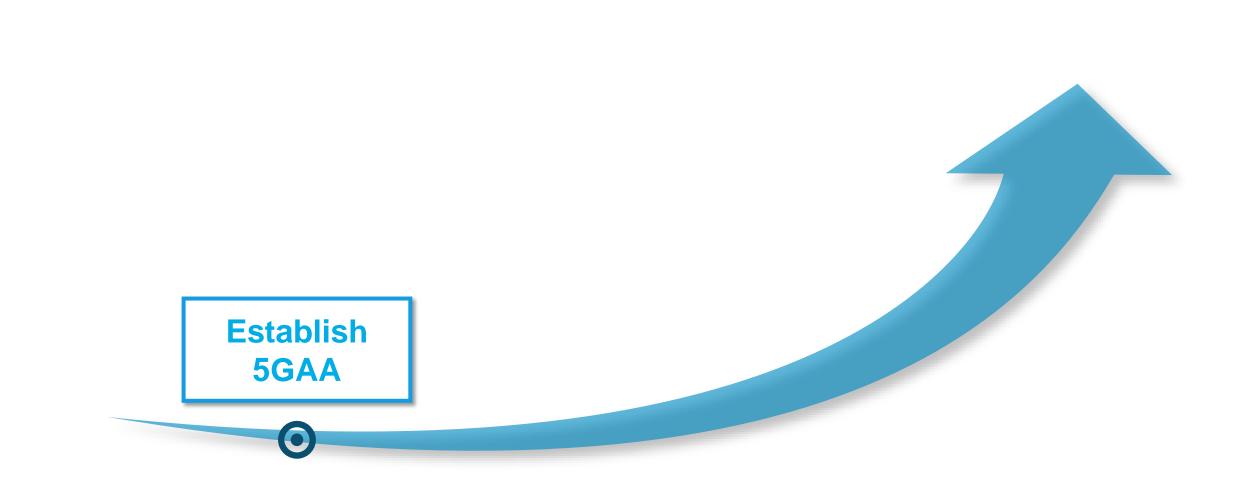
Q1 2018

> 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

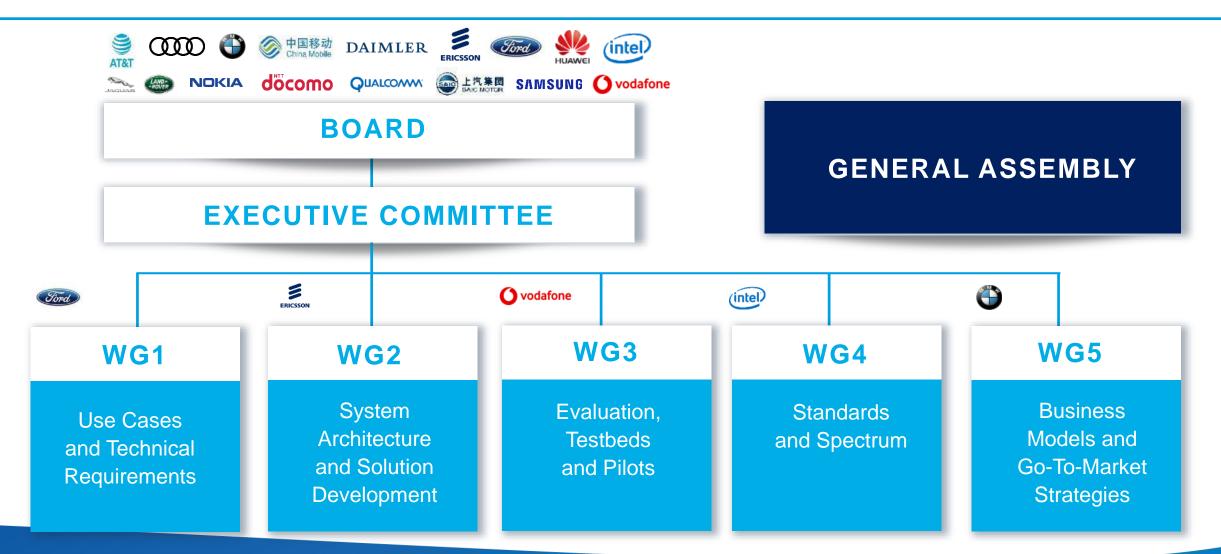
Airgain))) DEKRA DENSO 📕 FEV 🥯 Fraunhofer gemalo HITACHI HONDA (intel) INTERDIGITAL 🐜 🛲 JUNIPER infineon muRata NISSAN NOKIA döcomo OKI Laird kt NOHDE&SCHWARZ Panasonic pro%imus **PSA** ROHM L汽集図 SAMSUNG ② SAVARI 参考・上海国际汽车城 Streecom SKYWORKS SoftBank Telefinica 🕂 🚥 📶 Group TÜVRheinland Valeo verizon VENIAM VIAVI Ovodafone (7È) ZTE

Looking 18 months back...





Set up 5GAA - Our Organizational Structure





Liaisons with regulators and organizations

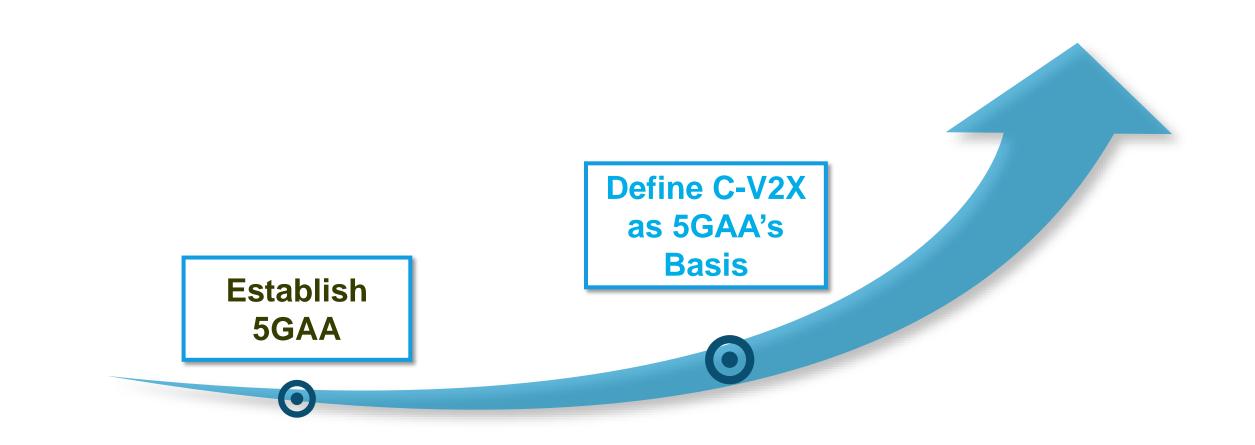
5GAAD T-2020

5G Automotive Association, **Ioneering digital transforma** in the **automotive in Jistry**



- MoU with Next Generation Mobile Networks (NGMN) Feb 2017
- MoU with Alliance Global TD-LTE Initiative (GTI) Feb 2017
- Market Representation Partner (MRP) in 3GPP April 2017
- Round Table with Chinese Government during Mobile World Congress Shanghai June 2017
- MoU with China IMT 2020 November 2017
- Round Table with European Road Operators Munich January2018
- MoU with Telematics Industry Application Alliance (TIAA) March 2018

Looking 18 months back...





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, V2I



Why Cellular V2X (C-V2X)?

C-V2X illustrated with "slipperyroad" use case (ABS Uu Uu Q C-V2X long range cellular network C-V2X short range

communications

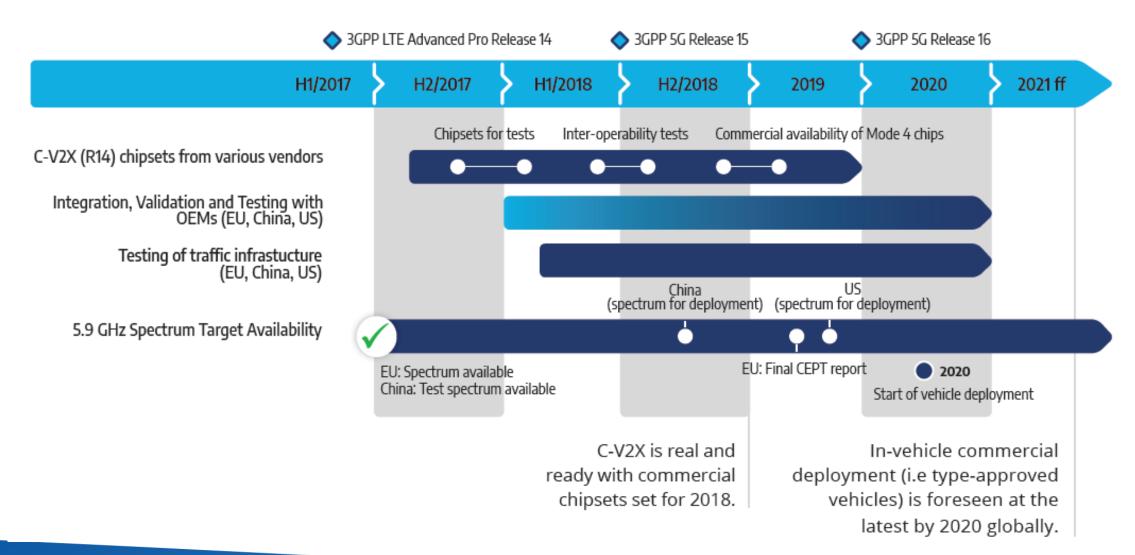
C-V2X is a unified technology platform including both:

 Short range direct communications (LTE-V2X PC5)

Long range cellular network communications (LTE-V2X Uu)

direct communication

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



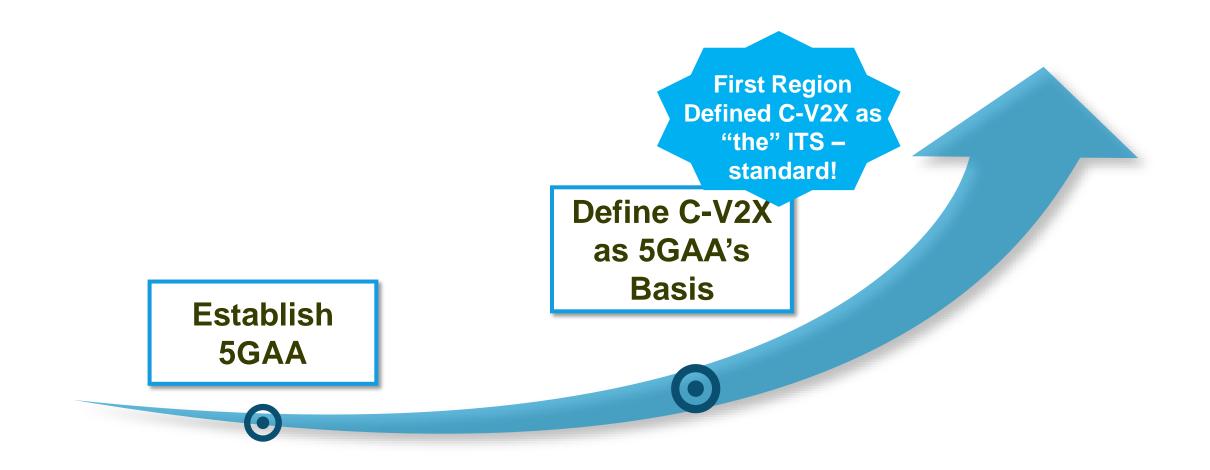


Worldwide C-V2X Trials

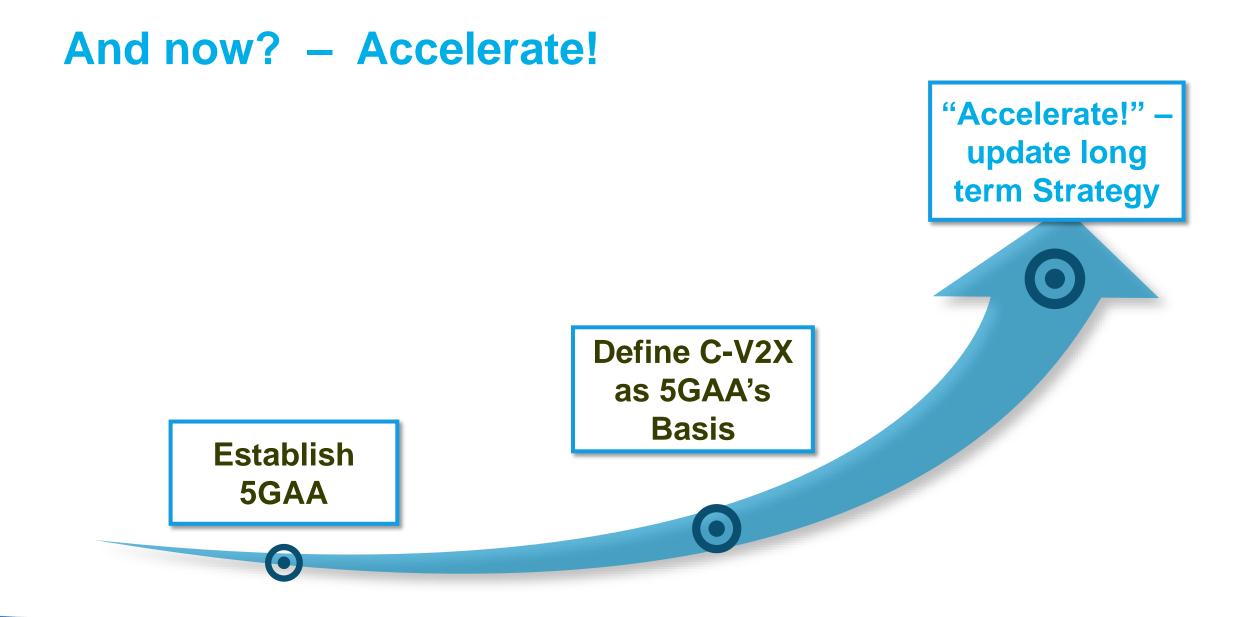




Looking 18 Months Back...



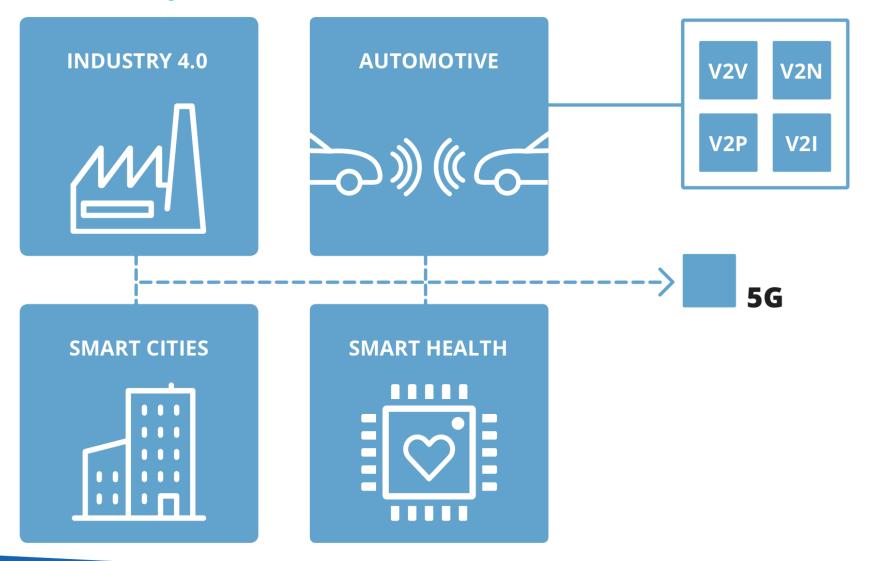






5G for Major Industry Verticals

C-V2X and its evolution to 5G V2X will foster synergies between the automotive industry and other verticals which are moving to 5G





Our updated Strategy







Automotive Association

For more information please contact:

secretariat@5gaa.org

or visit:

www.5GAA.org