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

Learn more at WWW.5GAA.ORG
5GAA bridges the automotive and telecommunication industries in order to address society’s connected mobility and road safety needs with applications such as automated driving, ubiquitous access to services, integration into intelligent transportation and traffic management.

5GAA unites today 134 members from around the world working together on all aspects of C-V2X including technology, standards, spectrum, policy, regulations, testing, security, business models and go-to-market.
5GAA Members: 134
5GAA Organisational Structure

**Board**

**Executive Committee**

**General Assembly**

**WG1**
Use Cases and Technical Requirements

**WG2**
System Architecture and Solution Development

**WG3**
Evaluation, Testbeds and Pilots

**WG4**
Standards and Spectrum

**WG5**
Business Models and Go-To-Market Strategies

**WG6**
Regulatory and Public Affairs

**WG7**
Security and Privacy
5GAA Strategic Pillars

**Overarching principle: Membership Value**
- 5GAA brings value and opportunities to 5GAA members
- Build a representative membership & impactful partnerships
- Drive active and enriching member engagement

- **Enabling Deployment**: lift barriers and accelerate time-to-market
- **Contributing to Standards**: plan pre-standardization of automotive connectivity with a multi-release perspective
- **Advocating to policy makers and thought leaders**: pro-actively addresses threats and opportunities in line with priorities and positions.
- **Supporting innovation**: leverage innovative solutions together.

- **Information (internal)**: regularly inform members about 5GAA activities around the association pillars
- **Liaison (external)**: position 5GAA around strategic ecosystem of external organizations contributing to the 5 pillars.
5GAA Vision

“Connected mobility for people, vehicles and transport infrastructure”
5GAA Priority Areas

**Trust** Implement state-of-the-art security and privacy by design in the V2X ecosystem

**Mobile Networks** Build upon cellular network deployments to fast track new mobility services

**Digital Roads** Engage with road operators to fully integrate the road infrastructure

**Interoperable, deployable & secure** Connected mobility for people, vehicles and transport infrastructure

**Interoperable Ecosystem** Satisfy business needs for interoperation between devices and services across ecosystem partners

**Flexible Service Architectures** Leverage distributed cloud and edge computing capabilities

**Vulnerable Road Users** Enable smart devices to deliver services protecting pedestrians, cyclists, …

**Precise Positioning** Foster advanced positioning solutions for all road users

**Sustained Technology Evolution** Accelerate evolution of cellular technologies towards 5G V2X

**Connected mobility for people, vehicles and transport infrastructure**

**end-to-end connectivity solutions**
5GAA is a contribution driven association
Current Work Items per Working Group

WG1 Use Cases and Technical Requirements
• Use Cases Maintenance and x-WI Convergence

WG2 System Architecture and Solution Development
• [Completed] Enhanced E2E Network Slicing and Predictive QoS (eNESQO)
• V2X System Application Layer Reference Architecture (V2XSRA)
• High accuracy positioning for C-V2X (V2XHAP)
• Distributed Antenna Systems (DAS)

WG3 Evaluation, Testbeds and Pilots
• Implementation of interoperability tests for C-V2X Plugfests
• Identification of Amendments to ETSI Test Specifications for use of LTE-V2X as the Access Layer Technology
• WID Vehicular Antenna Test Methodology

WG4 Standards and Spectrum
• Spectrum needs study for basic safety (v1) and for eV2X (v2)
  • Safety Use Cases (LTE-V2X)
  • Advanced Use Cases (NR V2X)
• Deployment Profile for C-ITS Services Using Cellular Infrastructure
• CEPT TF: RSCOM 5.9 GHz mandate to CEPT/ETSI

WG5 Business Models and Go-To-Market Strategies
• Pre-Study on Tolling Application with C-V2X (PC5)
• Identification of Mechanisms to Expedite MNO Networks Expansion and Fulfil Automotive Requirements (NetExp)
• Analysis of V2X deployment cost of 11p RSU vs C-V2X (Uu/PC5)

WG7 Security and Privacy
• [Completed] Efficient Security Provisioning System White Paper
• Impact of Privacy regulations on C-V2X
• V2V Root Management in China
• EU Regional V2X regulation alignment with ESPS
Current Cross - Working Group Work Items (xWIs)

• XWI 1 Accelerate definition of C-V2X based on 5G New Radio or future LTE enhancements (Rel16 NR-V2X) (phase2)
• XWI 2 MEC technology to support automotive services (MEC4AUTO)
• XWI 3 Vulnerable Road Users protection using cellular communications (VRU)
• XWI 4 Safety Treatment in Connected Automated Driving Functions (STiCAD)
• XWI 5 Requirements and architecture for Tele-Operated Driving (ToD)
• XWI 6 C-V2X Roadmap: Use Cases and Spectrum
• XWI 7 V2X Network Reselection Improvements (NRI)
• XWI 8 Global C-V2X NCAP Exploration and Coordination
## 5GAA Working Groups publications

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<td>White Paper on C-V2X Use Cases: Methodology, Examples and Service Level Requirements</td>
<td>July 2019</td>
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<td>5GAA comments for ETC national standard in China</td>
<td>September 2019</td>
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<td>5GAA reply to BEREC public consultation – Impact of 5G on Regulation</td>
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<td>Position paper 5GAA environmental benefits of CCAM</td>
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<td>5GAA- ETSI first C-V2X Plugtests</td>
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<td>C-ITS Communication System Profiles</td>
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<td>Recommended LTE-V2X Related Amendments to ETSI ITS Test Specifications</td>
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5GAA Partnerships
Memoranda of Understanding with authorities
5GAA Strategic Partnerships