

5GAA MRP report to 3GPP PCG

Maxime Flament

CTO

Market developments since Q4 2021

DENSO and Brandmotion join on V2X integration

source: [GPSWorld](#), October 2021



Verizon, Nissan advance C-V2X tech

source: [Mobile World Live](#), October 2021



NIO Taps Keysight to Verify 5G and C-V2X Connectivity in EVs

source: [EETimes](#) Asia, October 2021



Bosch Romania will test custom features for automated vehicles using C-V2X communication via 5G commercial network

source: [Business Review](#), November 2021



Ford C-V2X Technology Becomes Available in Guangzhou, Expands to 9 cities by 2021

source: [Ford](#), November 2021



BMW to use Qualcomm's Snapdragon SoC to power AV platform

source: [Safe Car News](#), November 2021



Telefónica Tech joins Ferrovial's initiative to develop the 5G roads of the future

source: [Market Screener](#), November 2021



Market developments since Q4 2021

Test and Measurement: Rohde & Schwarz works with Audi on C-V2X testing

source: [RCR Wireless](#), December 2021



V2X PKI by Microsec hits the road

source: [Microsec](#), January 2022



ADLINK collaborates with ecosystem partners to provide end-to-end C-V2X solutions

Source [VisionSystemDesign](#), December 2021



Verizon extends 5G MEC to two more cities, tests C-V2X and XR applications

source: [Fierce Wireless](#), January 2022



China Unicom and Huawei Launch an Initiative for Advancing Smart Super Sensing

source: [Mobile World Live](#), December 2021



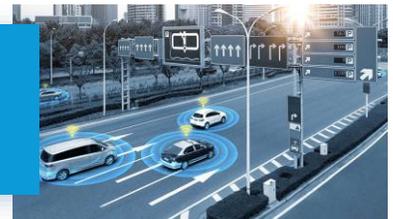
Iteris and Continental Unveil New V2X-Enabled Detection Solution for Smart Mobility Infrastructure

source: [BusinessWire](#), December 2021



AUTOCRYPT Launches Newest Upgrade of SCMS for V2X Security Solution

source: [Autocrypt](#), January 2022





5GAA Work Programme Overview

22 Active work items in 5GAA (1)

ACRONYM	Name	Related WG(s)
5GEB	Study on trends and technologies for 5G evolution and beyond	WG1, WG2, WG4, WG5, WG7
AVP	Automated Valet Parking Technology Assessment	WG1, WG2, WG4, WG5
BRIDGE	Bridging Commercial & Societal Transport Digitisation Strategies	WG6, WG7
CASE	Conformance Assessment Strategy Evaluation	WG3
China V2X SP-C	V2X State of Play in China	WG6, WG4, WG3
CMDB	Connected Mobility Dashboard (V2X Market monitoring)	WG5
CPTW	Connected Power Two-Wheelers	WG1, WG2, WG3
C-V2X RM II	C-V2X Roadmap phase II: Use Cases and Spectrum	WG1, WG5
DPR-V2X	Data processing in the context of V2X technologies	WG6, WG7
ETSI-CEPT	ETSI/CEPT Inputs on NR-V2X	WG4
gMEC4AUTO	Global MEC technology to support automotive services	WG2, WG3, WG7
MAPU	5G market pull thanks to the benefits beyond safety and AVs	WG5, WG2, WG4
4WARD	Moving Forward with US Deployment Profile	WG3, WG4

22 Active work items in 5GAA (2)

ACRONYM	Name	Related WG(s)
MBD4V2X	Misbehaviour detection	WG7
NCAP	Global C-V2X NCAP Exploration and Coordination	WG5
NR-V2X II	Defining Complex V2X Interactions for 5GNR phase II	WG1
PRESA	Predictive QoS and V2X Service Adaptation	WG1, WG2
S4SEM	Strategy for standardisation engagement and monitoring	WG4
Tolling	Tolling	WG5
UCID II	Use Case Implementation Descriptions Phase 2	WG1, WG2, WG3, WG4
UCM II	Use Cases Maintenance and x-WI Convergence Phase 2	WG1
VRU-PRO	Accelerating VRU Protection on the road	WG1, WG3, WG4, WG5

Recent Publications



Recent press releases



Live Trial of 5G Connected Car Concept To Launch in Turin, Italy
02/12/2021

News, Press Releases



5G Automotive Association Statement of Support for C-V2X Joint Waiver Request
14/12/2021

News, Press Releases



5GAA Statement on the proposal to amend the Intelligent Transport Systems Directive
17/12/2021

News, Press Releases



Live Trial of 5G Connected Car Concept Launches in Blacksburg, Virginia (VA)
23/03/2022

Press releases



5GAA partnered with ETSI and DEKRA to showcase C-V2X Interoperability and discuss deployment during the plugtests at the DEKRA Automobil Test Center in Klettwitz, Germany
04/04/2022

Press releases

Upcoming events



12 May 2022, Atlanta, GA
Workshop and Demonstrations
[Registration is open](#)



16 May 2022, Berlin, Germany
5GAA-ESA workshop on
NTN for automotive
[Registration is open](#)

Multi Operator MEC Trial – Turin, December 2

C-V2X services in roaming scenario

- 8 members involved: BT EE, Capgemini, Cisco, Harman, Intel, Stellantis, Telefonica, TIM
- Hosted by the City of Turin, showcasing the value of the international collaboration of tech leaders and public sector to improve traffic safety

Objectives of the trial

- **Objective 1 - Multi-MNO scenario:** How can a vehicle, which has radio access to MNO A, use a MEC application, which is operated by MNO B → Interworking between MNO's (by NOT losing the benefits of low latency)
- **Objective 2 - Global operational Availability:** How can an OEM as the MEC application developer be sure, especially on a global basis, that a MEC application works in the same way if it's operated by MNO A, or if it's operated by MNO B
- **Objective 3 - Multi-MNO with MEC roaming scenario:** Where the two operators can seamlessly transfer the V2X service from one operator to the other as the car OEM moves from one geo to the other in a roaming scenario. Typically, when an in-vehicle driver does a cross-border travel that involves two operators.



[Live Trial of 5G Connected Car Concept To Launch in Turin, Italy, December 2021](#)

GCF C-V2X certification

- Developed in conjunction with the 5G Automotive Association (5GAA), GCF's cellular vehicle-to-everything (C-V2X) certification programme has been created to enable organisations to certify their C-V2X capable products.
- GCF C-V2X certification is available to GCF members and also to non-GCF members (the latter on a pay-per-certification basis).
- A dedicated portal has been launched at:
<https://cv2x.globalcertificationforum.org>
- For specific information on the programme please contact cv2x@globalcertificationforum.org

ETSI C-V2X plugtest week

- Plugtest took place at DEKRA Automobil Test Center on 28 March – 1 April 2022
 - 5GAA-ETSI Workshop on Thu 31 Apr 2022 on **C-V2X Interoperability and Deployment**
 - Demonstrations took place
- Link to the website of plugtests event [here](#)

Multifunctional hall 1 – Meetings/Conferences up to 100 participants

- Total area approx. 260 m²
- Can be separated into two parts by means of exhibition walls
- Accessible through gates in the front and rear area (truck clearance height)
- High-power connections available
- heatable
- Exhaust System
- Sanitary facilities in the outbuilding
- Adjacent Visitor car park
- W-Lan (Wi-Fi) available



Multifunctional hall 2 – Meetings/Conferences up to 100 participants

- Total area approx. 260 m²
- Can be separated into two parts by means of exhibition walls
- Accessible through two gates in the front area (truck clearance height)
- 2 office containers in the back part
- High-power connections available
- heatable
- Sanitary facilities in the outbuilding
- Adjacent Visitor car park
- W-Lan (Wi-Fi) available



Multifunctional hall 3 – Meetings/Conferences up to 100 participants

- Total area approx. 260 m²
- Accessible for trucks through doors in the front
- High-power connections available
- heatable
- Sanitary facilities in the outbuilding
- Adjacent Visitor car park





5GAA meetings & events

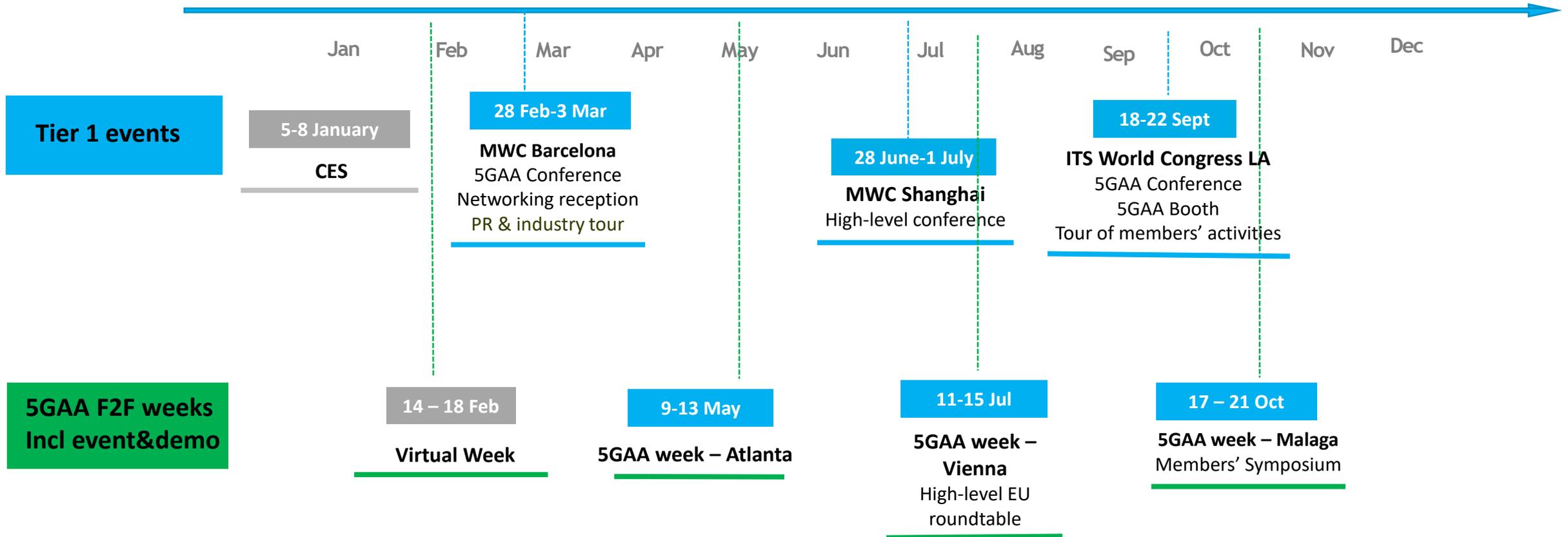
Back to F2F – a new normal

2022/23 Upcoming Meeting Weeks

Date	City, Country
May 9 – 13, 2022	Atlanta, USA
July 11 – 15, 2022	Vienna, Austria
October 17 – 21, 2022	Málaga, Spain
February 6 – 10, 2023	Seoul, South Korea



5GAA events in 2022



We encourage 5GAA members to showcase their activities at the 5GAA events and be part of the 5GAA activities.



Thank you!