5GAA joins 3GPP

The 5G Automotive Association has become a Market Representation Partner (MRP) in 3GPP, bringing in the influence and expertise of vehicle manufacturers and a variety of important companies from the automotive sector, to the 3GPP environment. Dino Flore, Director General of 5GAA, was present at the 3GPP Organizational Partner’s meeting in West Palm Beach on April 26, to complete the signing of the Partnership Agreement.

The 5GAA application for 3GPP MRP status stated “It is important to connect the telecom industry and vehicle manufacturers, to develop end-to-end solutions for future mobility and transportation services” Dino Flore told the 3GPP OP meeting “The access part is vitally important and we will work on that with 3GPP. In addition to that, we will look at the other pieces required – including the work on upper layers (SDOs including ETSI-ITS, ISO, SAE and IEEE) and security aspects - to develop the system as a whole.”

The work is on-going in 3GPP, with an initial version of the V2X access specifications in Release 14 and active discussions to define next generation V2X capabilities on-going. Susan Miller (3GPP OP Chair, ATIS President and CEO) welcomed 5GAA as a partner and noted the positive effect that Dino Flore’s vast experience in the 3GPP leadership, most recently as the RAN Chairman, will have for the successful integration of the 5GAA in to the 3GPP family. Ms. Miller said “5GAA is bringing in the needs of a key vertical at an important time for the project.”

“5G will be much more than mobile broadband connectivity, it will cover a variety of use-cases and industries” Dino Flore, DG 5GAA.
5GAA submitted comments to the National Highway Traffic Safety Administration

The 5G Automotive Association (5GAA) submitted comments to the National Highway Traffic Safety Administration (NHTSA) notice of proposed rulemaking (NPRM), “Federal Motor Vehicle Safety Standards; V2V Communications.” The proposed rule is to mandate new light-duty vehicles to be equipped with dedicated short range communications (DSRC).

5GAA is a new global cross-industry association of automotive, technology and telecommunications companies and includes 42 members, of which 8 are founding members (AUDI AG, BMW Group, Daimler AG, Ericsson, Huawei, Intel, Nokia, Qualcomm). Our mission is to enable communications solutions that address society’s connected mobility and road safety needs.

In our submission, 5GAA applauds the concept behind the rule, as V2V safety is important to our technology deployment mission. 5GAA urges NHTSA to not consider just the best technology of today, but also to consider the best technologies of tomorrow. Such an approach will promote innovation and competitive market-based outcomes, ensuring that American drivers and passengers benefit from the best and most advanced safety solutions available as technology evolves. Rigid technology mandates such as specifying DSRC, whether direct or de facto, freeze technology solutions to a past point in time. NS will significantly impede the innovation and evolution path for Vehicle-to-Vehicle (V2V) safety, and positions the US to lag behind the rest of the world in V2V communications specifically as well as V2X broadly. 5GAA elaborates on the following points:

Similar to DSRC, Cellular-V2X technology for V2V safety can transmit BSM in an ad hoc manner without cellular network coverage.

Cellular-V2X technology for V2V safety communications can operate without a SIM card and offers the tools to adopt, evolve or innovate any privacy-preserving security management system including SCRM.

Cellular-V2X technology for V2V safety benefits from a significantly larger link budget than DSRC (e.g., 8 dB at high speeds), corresponding to twice the range of DSRC and higher reliability.

Cellular-V2X technology for V2V safety can support up to 50 messages per second with less than 20 msec latency.

Cellular-V2X enables V2V, and for that matter Vehicle-to-Infrastructure (V2I), Vehicle-to-Pedestrian (V2P) and Vehicle-to-Network (V2N), safety applications to take advantage of the widespread cellular network coverage in the US.
5GAA notes also that the impending launch of 5G will only widen the performance gap between Cellular-V2X and DSRC.

5GAA believes that Rather than moving forward with the proposed regulation, NHTSA should instead undertake an updated, comprehensive technology neutral analysis of V2V solutions, including DSRC and Cellular-V2X, against the performance requirements in the NPRM. If this review indicates that regulatory action is necessary, the U.S. Department of Transportation should move forward with a technology neutral regulation that sets forth minimum V2V safety performance requirements only.
5G Automotive Association and European Automotive Telecom Alliance sign a partnership MoU

(Barcelona, February 27, 2017). The 5G Automotive Association (5GAA) and the European Automotive Telecom Alliance (EATA) have signed a Memorandum of Understanding. Aim of this partnership is to foster cooperation in the field of connected and autonomous driving solutions as well as standardisation, spectrum and related use cases.

5GAA and EATA are dedicated to prioritising the use cases identified by the two organisations in order to identify the technical requirements that need to be addressed, both in the short and in the long term. In order to better support standards for connected and automated driving, standardisation prioritisation for standards bodies such as ETSI, 3GPP and SAE is necessary as well. It’s beyond dispute that promoting spectrum-related issues (V2X), agreement on usage modalities of certain bands, security and privacy, as well as vehicle safety requirements to be supported by both mobile network operators (MNOs) and vehicle manufacturers (OEMs) will need to be addressed jointly. Last but not least, agreement between MNOs and OEMs is also key to developing business models and aligning the timelines of both industries.

5GAA includes 33 members, of which 8 are founding members (AUDI AG, BMW Group, Daimler AG, Ericsson, Huawei, Intel, Nokia and Qualcomm Incorporated). 5GAA is a multi-industry association to develop, test and promote communications solutions, initiate their standardization and accelerate their commercial availability and global market penetration to address society’s connected mobility and road safety needs with applications such as autonomous driving, ubiquitous access to services and integration into smart city and intelligent transportation.

EATA is comprised of six leading associations and 38 companies at present, including telecom operators, vendors, automobile manufacturers and suppliers for both cars and trucks. The main objective of the Alliance is to promote the wide deployment of hybrid connectivity for connected and automated driving in Europe. EATA’s first concrete step is the advancement of a ‘pre-deployment project’ aimed at testing the performance of hybrid communication required for automated driving under real traffic situations. Furthermore, EATA seeks to identify and address service and technology roadmaps, safety and security needs, as well as regulatory and business issues. The project will tackle cross-border interoperability, including digital and physical infrastructure, as well as vehicle localisation issues.
Quotes

Christoph Voigt, Chairman of the 5GAA Board
“5GAA was created to connect telecom industry and vehicle manufacturers to develop end-to-end solutions for future mobility and transportation services. We look forward to working with EATA to define the requirements of C-V2X and to create a successful V2X ecosystem”

Erik Jonnaert, Chairman of the EATA Steering Committee
“The revolution that connected and automated driving is going to bring about at the societal level is already shaping Europe’s automotive and telecoms sectors at a rapid pace. This Memorandum of Understanding with the 5GAA not only brings the different industry partners closer together, but also reinforces the European Commission’s strategy on cooperative, connected and automated mobility that was launched at the end of 2016. Car connectivity and automation will require a mix of communications technologies, but it is clear that 5G technology can become a key enabler of Europe’s digital highways. Together, EATA and 5GAA will contribute to reinventing the driving experience.”
NGMN Alliance and 5GAA sign Co-operation Agreement

The 5G Automotive Alliance (5GAA) and the Next Generation Mobile Networks (NGMN) Alliance have announced to strengthen their relationship and to foster a closer co-operation in the area of 5G-based V2X solutions (read more).

Dr. Peter Meissner (NGMN) and Christoph Voigt (5GAA) after signing the memorandum of understanding.
GTI focuses on verticals with 5GAA deal

The Global TD-LTE Initiative (GTI) took a “concrete” step in its strategy to focus on vertical industries by signing an MoU with the 5G Automotive Association (5GAA) at the GTI Summit 2017 (read more).

5GAA chairperson Christoph Voigt and GTI chairman Craig Ehrlich shaking hands on stage.
Driving to the Future: The Case for Cellular in Automotive

On the February 9th members of the 5GAA Board traveled to Silicon Valley to introduce 5GAA and describe their joint vision of cellular communications for automotive applications. The objective of the event was to engage a diverse group representing Silicon Valley-based companies in discussion of how the 5GAA vision may match the culture and innovation of the local ecosystem.

On this occasion 5GAA hosted the event at the Four Season in Palo Alto, sponsored by Intel, with a panel on “Driving to the Future: The Case for Cellular in Automotive”. Panelists included Jovan Zagajac (Ford), Luke Ibbetson (Vodafone Group), Walter Weigel (Huawei), Thierry Klein (Nokia) and Michael Faerber (Intel), and the discussion was moderated by Jim Misener (Qualcomm).

The audience included representatives from automotive OEMs and Tier 1 suppliers with offices in Silicon Valley, chipmakers, telecommunications research and development personnel, transportation providers, university researchers and several startups. The discussion was productive and covered a wide range of questions and answers which needed to be addressed. Also discussed was the value of cellular for the automotive and transportation value chain, 3GPP’s release of 14 features and how they are able to transform them to 5G. Also explored in the meeting was how invention and innovation are part of both the panelist and the audience group. The event was well attended by over 40 people whom contributed to a very lively debate, it was the first event of its kind organized by 5GAA.
The 5GAA welcomes Elaine Chao as US Secretary of Transportation

Coincident with her confirmation, the 5GAA Board convened this week in California support the development and deployment of cellular V2X solutions that evolve into 5G.

These solutions enable vehicle connectivity, safety services and automated driving. The Board notes that our mission to enable safety and efficient travel meets the vision expressed by Secretary Chao. We congratulate the USDOT Secretary and are encouraged by her support of connected cars and autonomous vehicles.

5GAA was created to bridge automotive and communication industries in order to develop, test and promote connected mobility solutions, initiate their standardization and accelerate commercial availability and global market penetration.

For more information on 5GAA, please visit: www.5gaa.org.
Ficosa, CMCC, Viavi, SAIC, Samsung, Rohde & Schwarz, ZTE, NTT DOCOMO, Continental, Danlaw join the 5G Automotive Association

5GAA welcomes Ficosa, CMCC, Viavi, SAIC, Samsung, Rohde & Schwarz, ZTE, NTT DOCOMO, Continental and Danlaw as new members of the association.

The new members significantly grow 5GAA membership base and diversity, both in term of geography and expertise. This will allow 5GAA to further connect communication and automotive industry to develop end-to-end solutions for future mobility and transportation services.

For more information on 5GAA, please visit: www.5gaa.org.
LG, Ford, Verizon, Denso and Gemalto join the 5G Automotive Association

5GAA (www.5gaa.org) welcomes LG, Ford, Verizon, Denso and Gemalto as new members of the association.

“We are very pleased that LG, Ford, Verizon, Denso and Gemalto have joined the association. With their global footprint and diverse expertise across the communications and automotive ecosystems, these companies will contribute to the definition and development of next generation connected mobility and automated vehicle solutions” Dino Flore, Director General of 5GAA, said.

Kookyeon Kwak, Executive Vice President, Head of LG’s Advanced Standard R&D Lab, said, “Cellular communication will play a pivotal role to meet the requirement of safety, convenience and infotainment for future smart cars. The trend is now being accelerated by the completion of LTE-V2X, the first cellular-based vehicle-communication standard. As a manufacturer in mobile communication and vehicle component areas, LG Electronics would like to contribute to 5GAA for connecting communication and automotive industries”.

“We are excited to work together with other automotive and technology providers to define a future that envisions new and empowering mobility services and solutions. We see the 5GAA as a key enabler to the development of a sustainable connected vehicle ecosystem.” Don Butler, Executive Director of Connected Vehicle and Services at Ford Motor Company, said.

DENSO CTO for the European region, Masato (Max) Nakagawa, commented: “Extending DENSO’s global efforts in the area of vehicular connectivity is strategically aligned to our policy ‘Protecting Lives, Preserving the Planet, and Preparing a Bright Future for Generations to Come’. Reinforcing this direction, DENSO AUTOMOTIVE Deutschland GmbH has decided to join the 5GAA. We are proud to be accepted as 5GAA member and are looking forward to collaborating in the 5GAA. DENSO considers this engagement viable to complement our long term ongoing global support of 700MHz/5.9GHz V2X safety communication. 5GAA provides the environment for the cross-industry collaboration required to define corresponding future mobile communication systems. In collaboration with the 5GAA partners we plan to explore, define and develop multi-spectral connectivity to support future mobility demands, especially in the area of connected and automated driving.”

“Gemalto is thrilled to join 5GAA and work within this prestigious group of global leaders to enable the world of new mobility that will revolutionize the automotive sector,” says Frederic Vasnier, EVP Embedded Software and Products. “Gemalto has demonstrated its unrivalled expertise to ensure simple, seamless and ubiquitous connectivity with robust security mechanisms inside the vehicle, between vehicles and with the connected ecosystem of devices, pedestrians and the cloud.”

5GAA was created to bridge automotive and communication industries in order to develop, test and promote connected mobility solutions, initiate their standardization and accelerate commercial availability and global market penetration.
Since its inception 5GAA has been experiencing rapid expansion to include key players with global footprint in the communication and automotive industries, including car manufacturers, tier-1 suppliers, chipset/communication system providers, mobile operators and infrastructure vendors.

To achieve its long-term goals, the association is creating five Working Groups to address the following areas of work: Use Cases and Technical Requirements; System Architecture and Solution Development; Evaluation, Testbeds and Pilots; Standard & Spectrum; Business Models and Go-To-Market Strategies. In addition, the board is planning the needed policy and advocacy efforts to join the relevant discussions in this space with different regulators, policymakers and administrations around the world.
Deutsche Telekom, Valeo and SK Telecom join the 5G Automotive Association

5GAA (www.5gaa.org) welcomes Deutsche Telekom, Valeo and SK Telecom as new members of the association.

“We are very pleased that Deutsche Telekom, Valeo and SK Telecom have joined the association. With their important expertise, they will contribute to the definition and development of next generation connected mobility solutions”, Dino Flore, Director General of 5GAA, said.

Dr. Bruno Jacobfeuerborn, CTO, Deutsche Telekom AG, said: “Getting the connected car successfully on the road requires a common worldwide standard for 5G. Fragmentation and proprietary systems are obstacles to avoid on our way. Deutsche Telekom has been actively engaged with our partners in the automotive industry to trial and advance communications solutions for intelligent mobility. We now look forward to broadening this collaboration within the cross-industry 5GAA setup”.

„Valeo being already a player in the autonomous driving field wants to extend this also to the connected car field. Therefore we are proud to be member of the new 5GAA Alliance to help creating new automotive standards for the 5G network and the connected car environment”, Marc Vrecko, Business Group President, Valeo Comfort & Driving Assistance Systems, said.

Alex Jinsung Choi, CTO & Head of Corporate R&D Center at SK Telecom, said: “We are designing 5G to inherently support connected cars and autonomous driving. 5G brings several outstanding values to automotive industries: augmented autonomous driving, worry-free car management and rich in-car services. I believe that 5GAA will play a key role in bringing new business possibility and opportunity for both the automotive and mobile communications industries.”
Vodafone Group to join 5G Automotive Association

Vodafone Group has become the first telecommunications operator to join the 5G Automotive Association (5GAA), a new global cross-industry association of companies from telecommunications and automotive industries.

Vodafone has already started testing cellular vehicle to everything connectivity (C-V2X, which includes LTE-V2X) and will continue that work as part of the 5GAA. Vodafone is recognised as the world leader in Internet of Things connectivity and provides more connected car services, for more vehicle models, from more manufacturers, in more countries, than any other company.

Vodafone has become a Platinum member of the 5GAA and Luke Ibbetson, Vodafone’s Group Head of Research & Development and Technology Strategy, will join the Board of the Association.

The 5GAA was established on 27 September 2016 and its founding members are AUDI AG, BMW Group, Daimler AG, Ericsson, Huawei, Intel, Nokia and Qualcomm Incorporated.

The Association will progress the development of connected and automated driving and the creation of intelligent transport systems.

5GAA activities will be organized along five working groups developing various aspects of the end-to-end ecosystem: use cases and technical requirements; system architecture and solution development; business models and go-to-market strategies; evaluation testbeds and pilots; and standards, policy, certification and regulatory aspects.

Luke Ibbetson, said: “The communication between vehicles, infrastructure and pedestrians using C-V2X will be fundamental to the creation of intelligent transport systems. The technology that the 5GAA develops can lead to major improvements in driving and road safety.”

Dino Flore, Director General of the 5GAA, added: “Vodafone’s industry leadership and cellular network operator’s perspective is an important addition to the 5GAA, and it will significantly contribute to the successful development of the connected mobility ecosystem.”