Exploring the Technological Developments Related to V2V and V2I

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ALLIANCE FOR AUTOMOTIVE INNOVATION

Our Focus

- Formed in January of 2020 as a merger of the Alliance of Automobile Manufacturers and the Association of Global Automakers

- Primary association for the auto industry in the United States

- Advocate for government policies in the United States that support the auto industry and its transformation to a **cleaner**, **safer**, and **smarter** future

Our Members


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ORGANISATION INTERNATIONALE
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FOR IMMEDIATE RELEASE **November 23, 2021**

John Bozella elected President of the "world organization for the automotive industry" OICA

The 19 November 2021 annual OICA General Assembly, in Naples, Italy, elected Mr. John Bozzella, President of the United States-based Alliance for Automotive Innovation (Auto Innovators) as the new president of the world automotive industry association OICA (Organisation Internationale des Constructeurs d'Automobiles – International Organisation of Motor Vehicle Manufacturers).

Mr. Bozzella succeeds Mr. Fu Binfeng, executive vice-chairman and secretary general of the China Association of Automobile Manufacturers (CAAM).

V2V and V2I Technological Development in the U.S.

- **Government policy** is having a significant impact on V2V and V2I development in the U.S.
  - Recent activity by the **Federal Communications Commission** on spectrum for V2V and V2I creates challenges for deployment
  - Lack of regulatory clarity at **U.S. Department of Transportation** on a V2V regulation produces deployment risks

Federal Communications Commission

- **In 1999**, the Federal Communications Commission allocated 75 MHz of spectrum in 5.9 GHz band to V2V and V2I using the Dedicated Short-Range Communication (DSRC) communication protocol

- **In 2013**, the Federal Communications Commission proposed that a portion of the 5.9 GHz be reallocated away from V2V and V2I

- **In 2020**, the Federal Communications Commission issued a final Report & Order that:
  - Reallocated 45 MHz of spectrum away from V2V and V2I
  - Specified that V2V and V2I use C-V2X communication protocol

Federal Communications Commission (cont.)

What does this mean for V2V and V2I deployment in the U.S.?

- **Harmful interference** from communication occurring in adjacent spectrum means the remaining 30 MHz of spectrum may not be usable for safety critical applications
- **Less spectrum** for V2V and V2I means fewer applications can be offered
- The **transition to C-V2X** means that:
  - Some automakers must shift their focus from DSRC to C-V2X
  - Some existing DSRC-based infrastructure must transition to C-V2X
  - The Federal Communications Commission must complete Phase II of its rulemaking

U.S. Department of Transportation

- In **August of 2014**, the U.S. Department of Transportation initiated a rulemaking to create a new motor vehicle safety regulation requiring all new light duty vehicles to have V2V

- In **January of 2017**, U.S. Department of Transportation proposed a new V2V motor vehicle safety regulation

- The U.S. Department of Transportation has paused work on the proposed V2V motor vehicle safety regulation, but has not formally withdrawn it

Supporting V2V and V2I Development in the U.S.

- The **Federal Communications Commission** can:
  - Resolve harmful interference to preserve full utilization of the remaining 30 MHz for safety critical applications
  - Permit C-V2X utilization of the remaining 30 MHz while it completes its Phase II rulemaking
  - Allocate more spectrum for V2V and V2I to accommodate additional applications and technology evolution
  - Provide reimbursement costs to infrastructure owners/operators transitioning to C-V2X

- The **U.S. Department of Transportation** can:
  - Proceed with the V2V motor vehicle safety regulation or formally withdraw it
  - Collaborate with stakeholders to prioritize V2V and V2I applications in the remaining 30 MHz
  - Provide funding to build out V2I infrastructure

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Transforming Personal Mobility