

# FNC-2021 DRAFT PROGRAMME

## Fully virtual, 22-25 March 2021

*22 March 2021 (13h00-16h00 CET)*

### **OPENING**

Opening addresses from ITU and UNECE

### **SESSION 1 – Regulatory advances in highly automated driving**

The United Nations' Economic Commission for Europe has created a working group at the World Forum for Harmonization of Vehicle Regulations (WP.29) that is helping to shape the direction and scope of road vehicle technical regulations for automated vehicles around the world. This expert group that is led by Germany gathers together the regulators from all continents (Africa, America, Europe, Asia and Oceania). The group's activities include discussions, drafting guidelines and developing technical regulations, as appropriate. It recently approved a new UN Regulation No. 157 for highly automated driving up to 60 kph on motorways, but this is recognised as a starting point. Ambitious activities, defined in the Framework Document on Automated Vehicles, are moving ahead quickly under the remit of three informal technical groups: covering ADS, under the lead of China, Germany and the USA at the Group on Functional requirements (FRAV) ; on Validation Methods for Automated Driving (VMAD) led by Canada, Japan and the Netherlands; on Cyber security and Software being led by the Japan, the UK and the USA, and a further group being led by Japan, the Netherlands and the USA is developing measures on data and data storage (EDR/DSSAD).

Two sub sessions will explore the future of highly automated driving guidelines and regulations around the world and the activities of the GRVA and its informal groups as follows:

#### **Part A. – How the UNECE is facilitating the introduction of automated vehicle technology?**

**Moderator Richard Damm**, Chair of GRVA, KBA, Germany

#### **Part B. – Shaping the future – Are the *tried-and-trusted* approaches for standards and regulations suitable for a digital future?**

**Moderator: Ian Yarnold**, Head, International Vehicle Standards Division, Department for Transport, UK

*23 March 2021 (13h00-16h00 CET)*

**SESSION 2: Vehicle cybersecurity framework is ready: It's time for deployment**

In June 2020, WP.29 approved two new regulations, one for vehicle cybersecurity (Regulation 155) and another for vehicle software updates (Regulation 156). These regulations provide a framework for the automotive sector to put in place the necessary processes to design and deliver cyber secure, connected vehicles with software and firmware that can be updated remotely. The questions this session will address are:

- What do these regulations mean in concrete terms for vehicle manufacturers and their suppliers?
- Are the regulations enough to ensure that vehicles are fully protected as highly automated driving products are added with ever-increasing operational design domains (ODDs)?
- What steps need to be taken to adopt these regulations in all regions?

Subject experts from all the world's regions, including members of the WP.29 committees that developed the regulations, will seek to answer these questions and discuss the next steps to deployment.

**Moderator: Michael L. Sena**, Publisher and Editor of “The Dispatcher”

*24 March 2021 (13h00-16h00 CET)*

**SESSION 3: Highly automated driving – how we get there**

Some vehicle manufacturers have announced vehicles with SAE Level 3, eyes-off products in which drivers do not need to keep their hands on the steering wheel or pay attention, but must be able to take back control within a defined period of time if prompted to do so. These products with limited operational design domains (ODD) are the first steps on the path to highly automated driving. Much more is needed to reach all roads and all conditions, including:

- perception and recognition need to improve,
- decision-making needs to be validated,
- information availability, localization, and situational awareness need to be extended,
- testing and certification needs major breakthroughs,
- the specific areas where AI will be most useful require definition.

This session will gather experts from all relevant fields to present and discuss their views on the progress made thus far and the prospects for vehicles that drive themselves.

**Moderator: Roger Lanctot**, Director, Automotive Connected Mobility, Strategy Analytics

*25 March 2021 (13h00-16h00 CET)*

#### **SESSION 4: Communications for highly automated driving**

Highly automated driving needs wireless vehicle communication for many reasons, including:

- software updates,
- road data updates,
- road works information,
- dynamic situations (slippery roads, end of traffic queue, etc.),
- direct interactions with vehicles (collision avoidance, braking notifications, merging assistance, priority at stop signs, etc.),
- identifying vulnerable road users (pedestrians, emergency responders, workers, cyclists, etc.),
- signal phase and timing.

Regarding these applications, the session will discuss:

- Which applications are needed to achieve highly automated driving on all roads in all conditions?
- How will these applications be accomplished and when?
- What other communication-related elements are needed?

Global experts on the subjects of communications and highly automated driving will gather in this session to discuss their views on the progress and the prospects for communications for vehicles that drive themselves. These experts will explore what progress must be made and when it will happen to enable vehicles with highly automated driving products with extensive operational design domains (ODDs).

**Moderator: T. Russell Shields**, President and CEO, RoadDB LLC