

Second Quarterly Meeting – Meeting notes

The second quarterly meeting of the project ‘Network AD Regulations’ was held on the 12th of December 2023. It was held online.

We first went through the draft report of the **Overview of current and upcoming regulations in automated driving** and gathered some feedback from the group. The report, when completed, will be published on Drive Sweden’s project website in January and an updated version of the overview will then be published every six months throughout the project.

The issues discussed during the meeting are documented as follows:

Theme #1: Practical interpretation and guidance of new and existing regulations

We discussed three cases within this theme:

Case 1: Warning triangle

According to the 1968 Vienna Convention on Road Traffic, there are possibilities to use “some **other equally effective devices**, prescribed by the legislation of the country in which the vehicle is registered”, to fulfil the function of a warning triangle. As a result, it would be possible to adjust the current requirement of the warning triangle in the national legislation, if there are alternative solutions that could replace the warning triangle. Some possible alternatives may be, for example, using **strong lights** on the back of the vehicle or blinkers to warn other road users. However, the solutions need to prove to be equally effective as the warning triangle. That is what the Vienna convention requires.

Since the EU member countries (currently) have mandate to decide on the circulation of AVs on their roads, it is important for the network to follow up progress in European countries such as France and Germany. However, it is interesting to look at solutions outside Europe as well, since there is a requirement for a warning triangle in many countries. There are still no updates on Waymo’s and Aurora’s requested exemption from the warning triangle requirement in the US.

Another discussion was about the effect of a warning triangle. The group discussed that we do not know much about the effect of the warning triangle in terms of preventing accidents. RISE has gone through a number of court judgments that have dealt with criminal liability in situations where a stationary vehicle has been hit (or people standing outside of that vehicle) and where a warning triangle was not placed appropriately or at all behind the stationary vehicle to warn others. People have died in these situations. However, it has not been possible to determine by studying these court judgments what significance the absence or inappropriate placement of a warning triangle has had in each such accident. This means that other factors may have been decisive or played a greater role. In these cases, the courts have investigated whether the driver has committed criminal negligence through not paying enough attention to the surrounding traffic to be able to detect a stationary vehicle in time and avoid a collision. In the studied cases the absence or inappropriate placement of a warning triangle has not been a factor that has led the court to dismiss the charges against the driver who has hit the stationary vehicle (or people outside of that vehicle). Instead, the accused drivers were convicted of crimes because they were deemed not to have paid sufficient attention to the surrounding

traffic when colliding with a stationary vehicle. In the cases, various factors were considered, for example weather conditions, sight conditions and the fact that the tailgate of a stationary vehicle was open (the tailgate was open in several cases). Only a percentage of the court judgements that may be relevant to this question have been studied so far. These judgements were searched in JUNO by entering the word for warning triangle in Swedish (“varningstriangeln”) and filtering the search results on case law.

At the end, regardless of the number of lives proven to be saved by warning triangles, it is a functional requirement in the Vienna convention that all contracting parties have considered important and since this requirement is difficult to fulfill in AD when a driver is not accompanying the vehicle, a comparable solution should be presented for AD. The industry can develop solutions and if they are effective enough, there is a possibility that the requirement in the legislation can be changed. The development of such solutions and evaluation of their effect could be investigated in a future research project.

The group also discussed that the availability of digital information about road hazards, e.g. stationary vehicles on the road, is likely to increase over the years. But it will probably take a long time before there is reliable information (with full coverage and always updated). It will also take time before all road users will be able to receive that kind of digital dynamic traffic information while travelling.

Case 2: Other tasks than driving

Placing out a warning triangle is one of the tasks that drivers are responsible for. Drivers are also responsible for e.g. securing the load, ensuring that children wear seatbelts, helping out in connection to a road accident, reporting wildlife accidents to the police (reporting of wildlife accidents to the police is a requirement in Sweden but not necessarily in other countries), etc.

One way to distinguish other tasks than driving can be based on **urgency**. Urgent tasks may require one kind of solutions that involve a human interface with dedicated resources, and tasks that are not as urgent may require another kind of solutions.

Case 3: Police interactions and emergency vehicles

We explored the cases in the Netherlands and France. In the Netherlands, AVs should be able to understand and react to police signals. For emergency vehicles, AVs should also be able to recognize and give priority to them. However, the Netherlands does not yet have specific legislation on AD. They are still working on it.

France has specific legislation on AD. In France, the driver (on-board or remote where applicable) of an AV must follow summons and instructions from law enforcement forces, facilitate the passage of vehicles of general interest and give way to priority vehicles of general interest.

The group discussed that a harmonization of light signals and sound signals from emergency vehicles would facilitate the development of AV capabilities to detect emergency vehicles in different countries.

Conclusion

It is important to have harmonized regulations, at least on the **regional level within the EU**. AVs need to be able to drive from Sweden to, for example, Denmark without a significant adaptation to different requirements on the national level.

Communication with other road users, including vulnerable road users, in a **mixed traffic environment** is difficult. The transition period will require communication and infrastructure that would work with both AVs and conventional vehicles driven by human drivers.

Theme #2: Pro-active input to new international regulations

Updates from the work in the Group of Experts on drafting a new legal instrument on the use of automated vehicles in traffic under UNECE/WP.1 were presented during the meeting. Also, some updates from the work on vehicle regulations in UNECE/WP.29 were mentioned.

The EU will probably publish new type approval rules for AVs by the summer 2024. A proposal of the new regulation and the possibility to provide feedback on it should in that case be available at some point during the spring.

The group discussed the trend in different countries of discharging the driver of his/her criminal liability when the ADS operates in accordance with its conditions of use, and the difficulty of imposing criminal liability on a person who has no control over how the ADS performs the dynamic driving task.

Theme #3: Proactive input to Swedish legislation

A report with legislative proposals for automated driving ([Promemoria Automatiserad körning](#)) by the Government Offices of Sweden was sent out for considerations to relevant bodies in October 2023. The project partners discussed the possible referral responses from their organizations and exchanged views about the report. In summary, there were discussions around the driver's role and responsibilities, the identification of the areas or roads that AD should be allowed, and various implications of the proposed regulation. The group also underscored the importance of looking at the previous proposals: **Ds 2021:28** and **SOU 2018:16**.

Theme #4: Infrastructure adaptation

Information about the EU initiative of the common European Mobility Data Space (EMDS) was presented at the meeting. The group discussed the initiative and also its connection with the Swedish initiative of digitalizing traffic regulations ([Drive Sweden Policy Lab – Case 4 “Framtidens trafikregler” – project report](#)).

Drive Sweden is also going to have a theme meeting in the spring 2024 to discuss the possibilities to support the process of digitalizing traffic regulations and its implementation in Sweden.

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