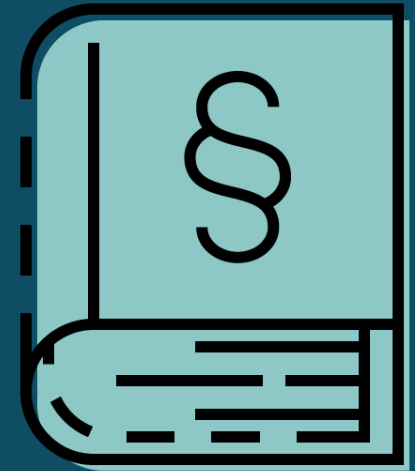


# The Current State of AD Regulation and Needed Actions

**RI.  
SE**



**Jenny Lundahl, RISE**

**Drive Sweden Forum 5 September 2024**



## **WHY?**

**Why do we need AD regulation?**

**Isn't our legislation fit for purpose anymore?**

**What's at stake?**

**What happens if we don't act?**

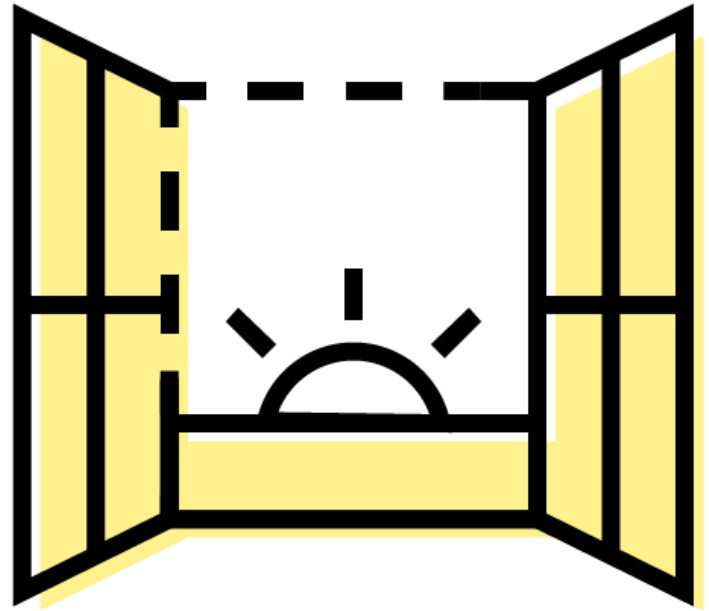
We need proper regulations to **create a safe, trusted, and innovative environment** for development and deployment of AVs.

- **Vehicle regulations** ensure that AVs operate safely.
- **Traffic rules** ensure they are used safely.
- **Liability rules** define clear roles and responsibilities to reduce uncertainties and help build public trust in AD technology.



Clear and consistent rules can help **balance safety and innovation**, ensuring that advancements in technology do not come at the cost of public safety.

## A Window of Opportunity



# Legislation Fit for Purpose

- Current legislation was developed in the context of conventional vehicles and drivers.
- To remain fit for purpose, legislation must adapt to technological advances.
- Vehicle regulations must address the different complexity of system safety in AVs.
- We must also rewrite the legislation to address the new situation that AD brings, where it's no longer a driver but a system that drives the vehicle, necessitating new traffic and liability rules.



An ad in a newspaper from the year 1915



# A Multi-Level Approach to Regulation

The legal framework for AVs and AD is decided on different levels:

- **Vehicle requirements** are determined primarily at the UN and EU levels.
- **Traffic rules** are determined primarily at the national level, although to a large extent based on international conventions.
- **Liability rules** are determined primarily at the national level, esp. criminal liability; but product liability is based on EU law.



# Where Are We with AD Regulation?



## Global level (UNECE):

- Regulation UN R 157 on type-approval requirements for ALKS (approx. SAE level 3 but limited to certain road conditions). Ongoing work to develop a regulation for ADS by 2026.
- Important amendments to the Vienna Convention on Road Traffic. Ongoing work to develop a new legal instrument for the safe use of AVs in traffic (LIAV).
- Etc.

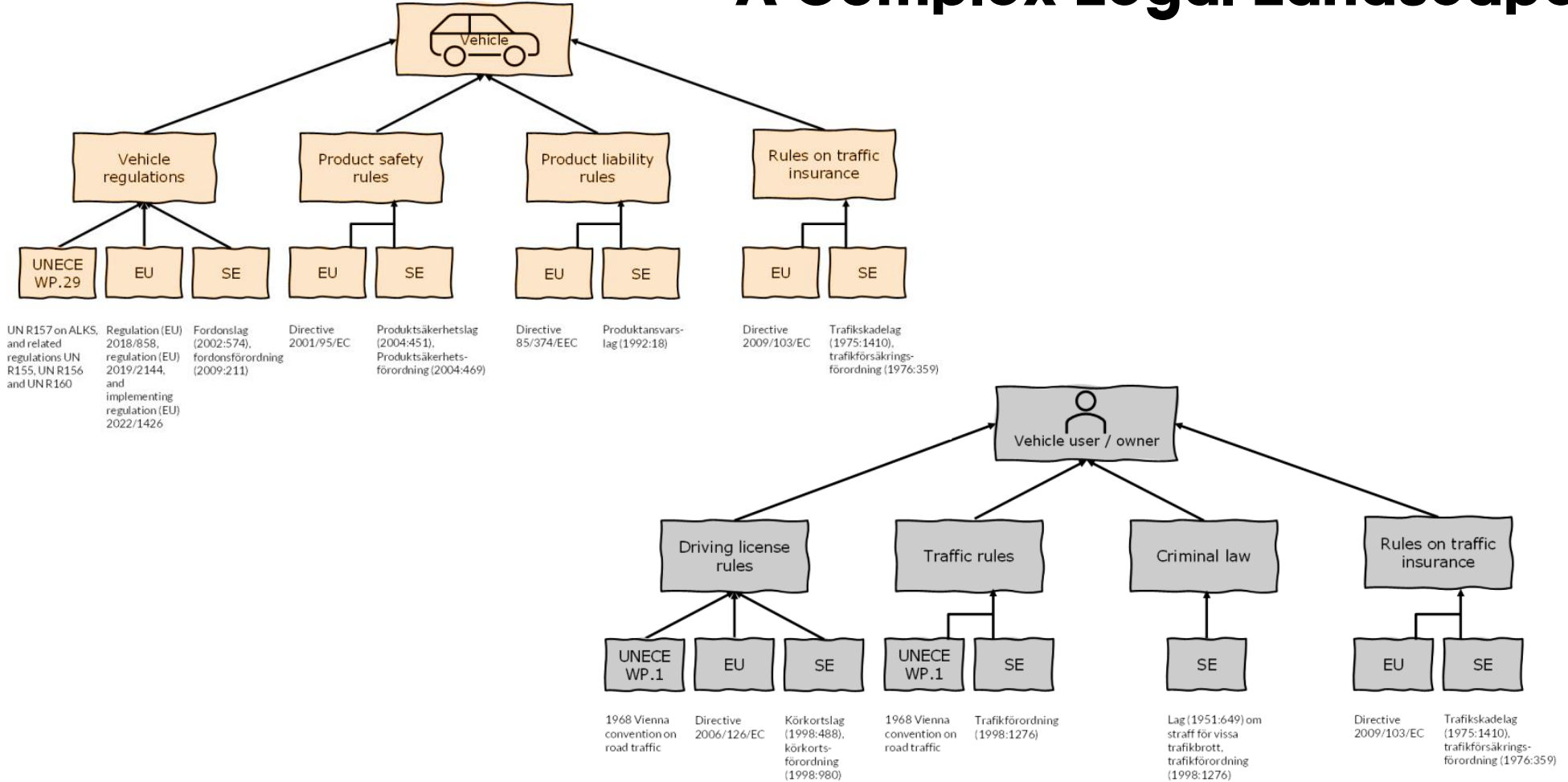


**EU level:** Type-approval requirements for fully automated vehicles (approx. SAE level 4), limited to small series and certain use cases.



**National level – Sweden:** Rules for testing only. No regulation for general use of AVs. Legislative proposals for AD have been developed but have not (yet) been taken forward in the legislative process.

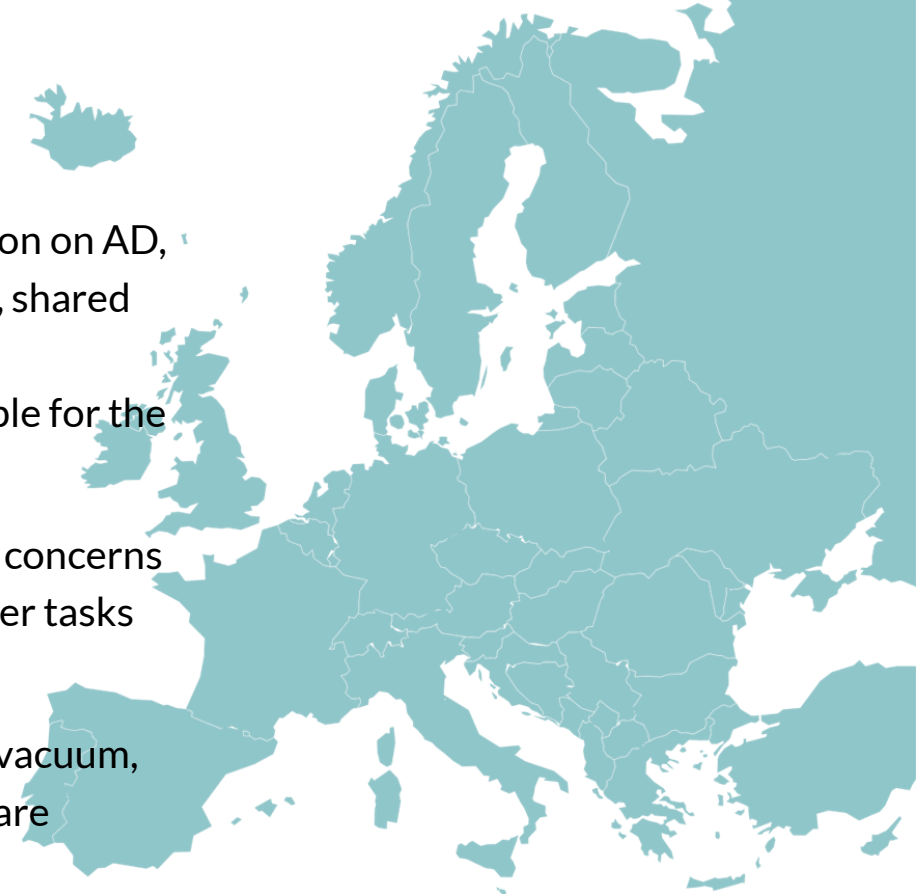
# A Complex Legal Landscape



# What About Other Countries?



- In most countries that have or are about to introduce legislation on AD, **a division of responsibilities and liability** is usually envisaged, shared between drivers (or equivalent roles), vehicle owners, and manufacturers, and in some cases a new legal entity responsible for the ADS.
- The major innovation in the countries' new legislation usually concerns **the driver**, who is often assigned **a new role** with new but fewer tasks and more limited criminal liability.
- Today, common rules only partially exist. In this international vacuum, countries use their legal space and adopt domestic rules that are intended to function primarily in the context of that country.
- Question: What if our legislation in Sweden deviates significantly from that of other countries? That could be problematic, considering cross-border routes are common in Europe.



# How Do We Find the Way Forward?



# Network Automated Driving Regulations

- A forum-based project to discuss regulatory challenges and support both companies and authorities in advancing the AD arena.
- **Partners:** Transportstyrelsen, Trafikverket, Aptiv, Applied Autonomy, Einride, Klimator, Kognic, Nobina, Scania, Volvo Cars, Mobility Sweden, AstaZero, Västtrafik, RISE, and VTI.
- **Project period:** June 2023–May 2025.
- **Approach:** Quarterly roundtables & research activities to facilitate the forum.
- **Deliverables:** An overview of AD regulations is released every 6 months. The first version was published in January (version 0.5). Next version will be available within a few weeks.



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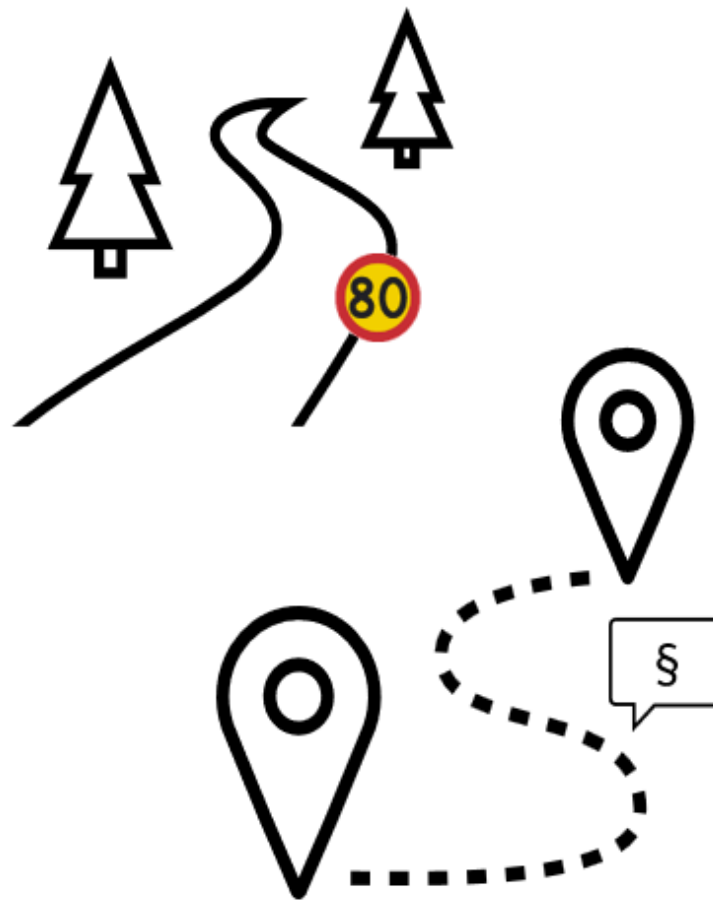
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Strategic innovation programmes

# From Physical to Digital Roads

- We also need a **digital infrastructure** to support AD.
- **Legislative amendments may be required** to mandate authorities and municipalities to digitalize road and traffic data. (Findings from the Drive Sweden project “Future traffic rules”; access the [report](#).)
- Collaborative projects to support the process of digitalizing traffic regulations and their implementation in Sweden are currently taking shape.





**Thank You!**  
**Questions?**

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