

Drive Sweden Policy Lab

Future Traffic Rules

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With support from

VINNOVA

 Swedish
Energy Agency

FORMAS

DRIVE : SWEDEN

Strategic
innovation
programmes

Drive Sweden Policy Lab (DSPL)

- DSPL targets **specific cases** in Drive Sweden projects.
- **Purpose:** explore how technology and service development relate to existing laws and regulations for new mobility services that are being developed, and to identify and overcome bottlenecks.
- DSPL was initiated in 2019 to support technology development projects within DS's portfolio that had encountered regulatory challenges. New cases have been added since.
- **Time period:** October 2019–Dec 2022.
- **Project partners** vary by case. RISE is coordinator.
- [Drive Sweden Policy Lab | Drive Sweden](#)

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What is a policy lab?



A neutral meeting arena
for policy and regulation innovation
in collaboration with relevant actors
based on specific cases
in an agile, iterative process

Drive Sweden Policy Lab 2021/22

Case 1 – Modern and more simple tax system for private carsharing

Case 2 - Bus cameras for society's benefit

Case 3 – Traffic cameras for society's benefit

→ Case 4 – Future traffic rules

Case 5 – Feasibility study regulatory sandbox car rental legislation

Future Traffic Rules (Sw. Framtidens trafikregler)

- It is a **DSPL-project** (DSPL 2021/22 case 4)
- **Duration:** Sep 2021–Dec 2022
- **Funding:** Vinnova/Drive Sweden
- **About:** The project identifies challenges, opportunities and solutions around regulations for how traffic rules are created and communicated
- **Participants:** Many partners & a large reference group with both private and public actors

Why are we doing this?

A 3D rendering of a winding road with red location pins, symbolizing a path or journey. The road is light blue with a white dashed center line, and the pins are red with a circular hole in the center. The background is a soft, out-of-focus blue sky.

We want to investigate a **future system** for digital traffic rules, that can

- support the development towards a connected and automated road transport system and
- enable new services to the society and citizens.

We **aim at** machine-readable traffic rules with a clear geographical scope (rules indicated on digital maps or with coordinates)

Participants

project partners & reference group

- municipalities and authorities that decide on traffic rules
- authorities that manage and provide map data and data on traffic rules
- companies that provide map-based tools for digital traffic rules
- navigation companies
- vehicle manufacturers



In the project we investigate the need for improved processes and possibly new regulations on how traffic rules are prepared, decided and published. We consider possible solutions and the consequences of different solutions.

Challenge: The issue concerns the responsibilities of several authorities and municipal self-government.

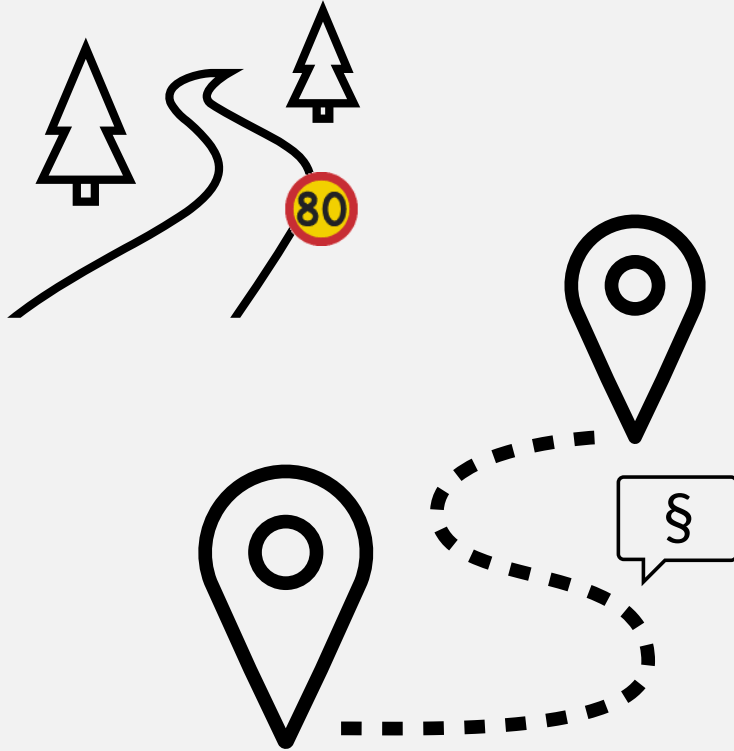
Towards a future system for digital traffic rules

The future is digital

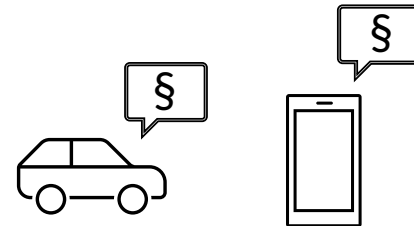


- The transport sector is becoming increasingly **connected, digitalized** and **automated**.
- The development is taking place at a rapid pace and has the potential to improve **the transport system** in several areas (e.g. safety, efficiency, environmental impact & accessibility).
- However, to meet this development, we need to move towards a **more digitalized** road infrastructure.

From physical to digital roads



- A digital representation of the road network is becoming increasingly important.
- One part of this is **digital and machine-readable traffic rules**. In a digital world we need data on traffic rules (*what applies where*)
- Road users, citizens, companies and other actors in our society would **benefit** from such data.





What is the issue?

- Traffic rules must be linked to geographical locations, roads/streets and areas.
- In Sweden, there are **300+ municipalities & authorities** that decide on local traffic regulations, and their processes are not standardized. Some of them use **digital tools** to create data on traffic rules, others do not.
- When data is missing, the Swedish Transport Administration “**translates**” traffic rules into data. But this data is based on interpretations.
- Market actors (vehicle manufacturers and navigation companies) develop their own solutions for data on traffic rules. But this also means interpretations of the geographical scope of the traffic regulations.
- There is a need for improved processes and to capture data as **close to the source** as possible, by the decision-making authority.

What potential is there?

Increased benefit for systems and services of today, and in the future

It can contribute to making driving easier, the roads safer and the transport system more efficient



Data on traffic rules

- facilitate for navigation companies, providers of driver assistance systems, citizens etc. (they get access to more and clearer regulations)
- would enable dynamic traffic regulations
- is a necessity for the implementation of AD on public roads



Autonomous driving

Geofencing

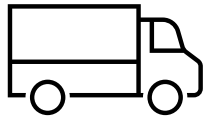


Driver assistance,
ISA etc.



Use cases

Restrictions



Low
emission
zone

Planning,
routing etc.



Parking, charging
etc.



Project status

- In the project, we have collected information about:
 - needs and benefits of digital information about traffic rules
 - challenges and possibilities for a change
 - ongoing initiatives within the EU and internationally, as well as how other countries do.
- This is to better understand the current situation, identify a preferred situation and how we get there. Based on the current situation analysis, we have discussed possible solutions and consequences of different solution options.

This is what we have concluded

1 (2)

- We must **accelerate the digitalization** of traffic rules. Many actors in society need this data. We also need to fulfill upcoming EU-rules. From an international perspective, we have come far in Sweden. But we also have work to do.
- Data on traffic rules is available to some extent today in, for example, NVDB and map and traffic information services, but there are shortcomings both in terms of content and quality. This means that the data is not always reliable, which makes it difficult to use the data.
- Some of the shortcomings can be traced to the lack of standardized processes for digital traffic rules.
- For data to be reliable, data must be captured close to the source – digitalization must be done by the decision-making authority.
- Otherwise, the data will be based on interpretations. There is always a potential risk that it will go wrong. We have also seen examples of such errors occurring.
- More authorities must adopt digital tools and start creating data on their traffic rules.

This is what we have concluded

2 (2)

- How can we in Sweden get more decision-making authorities to start working digitally with their traffic regulations?
- In the project, we have discussed both carrots & sticks (mandatory and voluntary instruments that either require or encourage organizations to report data).
- We have also discussed in detail which decision-making authorities, types of regulations, etc. new measures should apply to.
- We have also discussed what happens if no measures are taken.
- The final report from the project will be published soon!

Thank you
Any questions?

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