

HCT-conference in Gothenburg

October 11th., 2023

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EMS2

Trial including double-trailers
in Denmark

Background and proces

- Meeting in Helsinki in 2020 – looking at experiences from Finland and Sweden
- Recommendation from the branch/hauliers to start a trial in 2020
- Analysis made in 2021 on the possibilities for having a trial with longer EMS in Denmark
 - Including traffic safety and possible road net
 - Types of EMS2 and technical demands
- Political agreement from April 22nd, 2022:
 - *A trial with EMS2 must be conducted between Aarhus og Høje-Taastrup (west of Copenhagen), including the Öresund-bridge connection to Sweden.*
- Preparations
- Expected start of the trial on January 1st, 2024
- 5-year trial

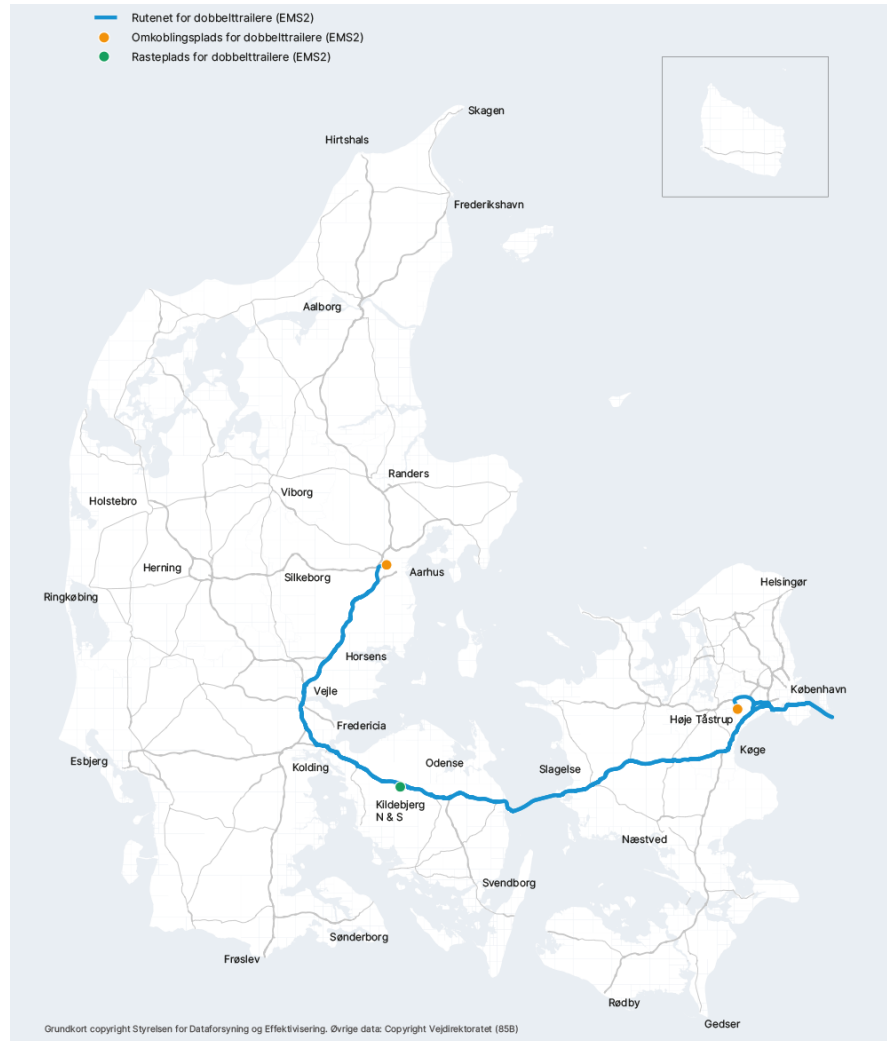
Focus on traffic safety and infrastructure

- Due to traffic safety, the immediate assumption is that EMS2 only will be recommendable between a number of junctions (decoupling areas), with suitable access conditions, and in short distance from the motorway
- The traffic safety considerations apply among others:
 - risk of accidents and the layout of the road, e.g. whether the section is multi-lane, has a median barrier, distance between ramp junctions, etc.
 - presence of cyclists and pedestrians on the first and last “mile”
- Closed roads and ramps – detours routes must also be considered
- The traffic safety consequences must be evaluated specific for the roads where the EMS2 might be allowed.....

The traffic safety consequences

- The extra turning area required for EMS2 can mean that intersections and roundabouts will become very dynamic. It is estimated that this would lead to higher speeds for other road users, which increases the risk and severity of accidents
- When driving straight on the two-lane road network, overtaking an EMS2 will, all other things being equal, lead to an increased risk of frontal collisions, as overtaking takes longer and requires a better overview. Furthermore, there will be road users who do not recognize the length of the EMS2 before they start the overhaul. Therefore, it should primarily be separated roads, that are used for the EMS2
- In intersections between motorways and other roads, it might be a challenge to create enough space for an extra long vehicle. This may be at the expense of turning lanes, which are established to improve accessibility. This can cause capacity challenges on the ramp, and lead to congestion back to the motorway, which can increase the risks for accidents.

EMS2 – road net in the trial



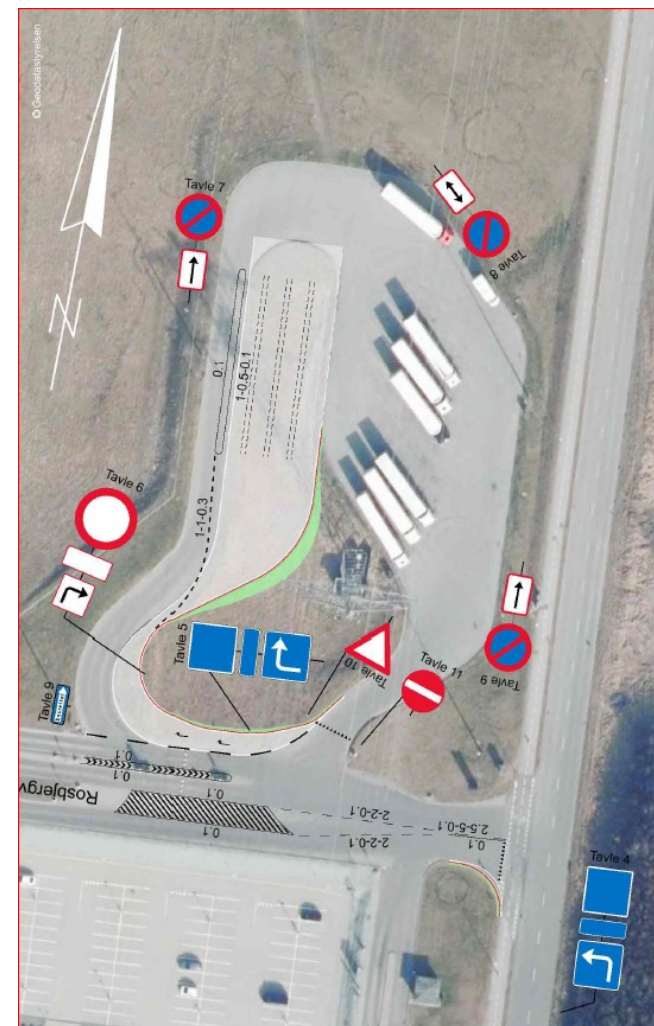
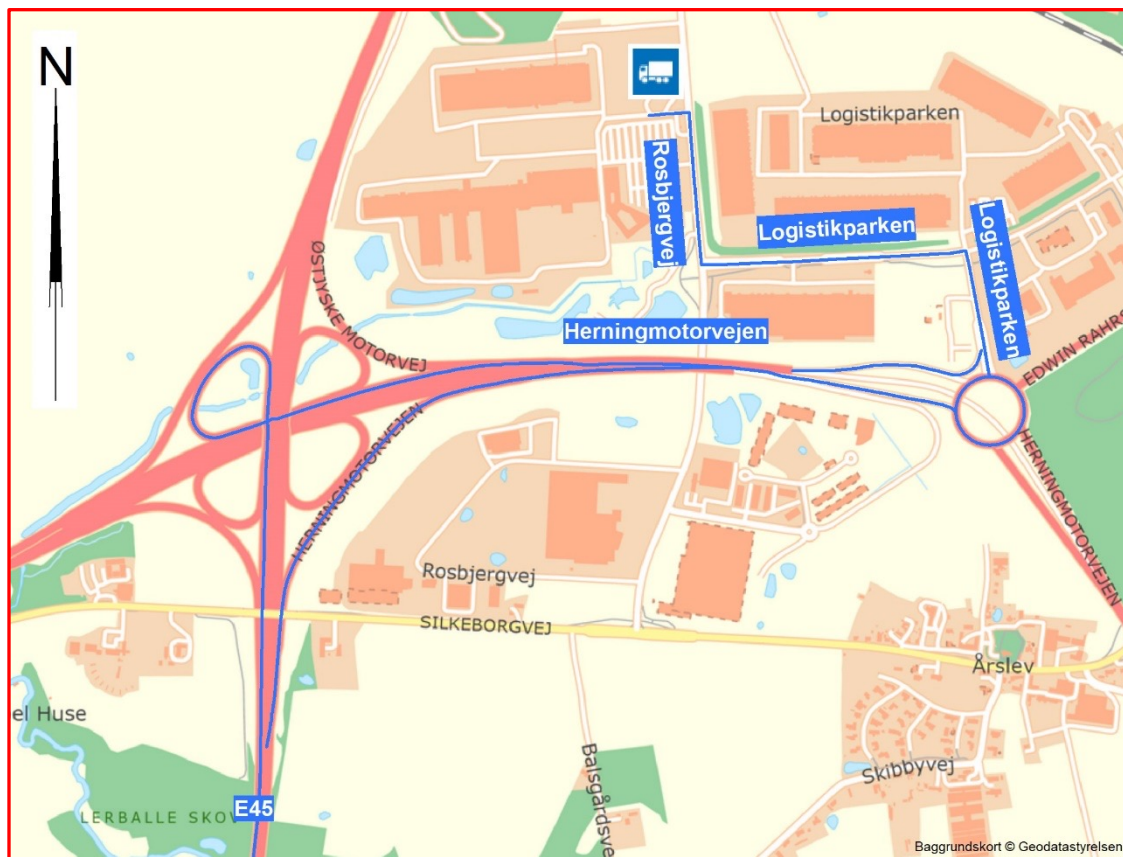
- Approx. 340 km highways
- Approx. 10 km other roads*
- Access to 2 parking-areas along the highway
- Access to 2 decoupling-areas
- Access to Sweden via the Oresund-bridge
(agreement by the minister of transportation in Denmark and Sweden)

* = access from highways to decoupling areas

Preparations

- Road projects
 - 4 areas with physical changes to be conducted this fall
- Regulation
 - EU-notification
 - Regulation for the approved road net for the EMS2
 - Regulation for the technical specifications for the EMS2 vehicles
 - Change of the overall traffic-regulation. Referendum in the Danish government 12. of October
- Systems, communication and follow-up
 - [Trafficmap for the EMS on the homepage](#)
 - Changes to the automatic traffic counts (using magnetic coils) on the trial road net
 - General communication

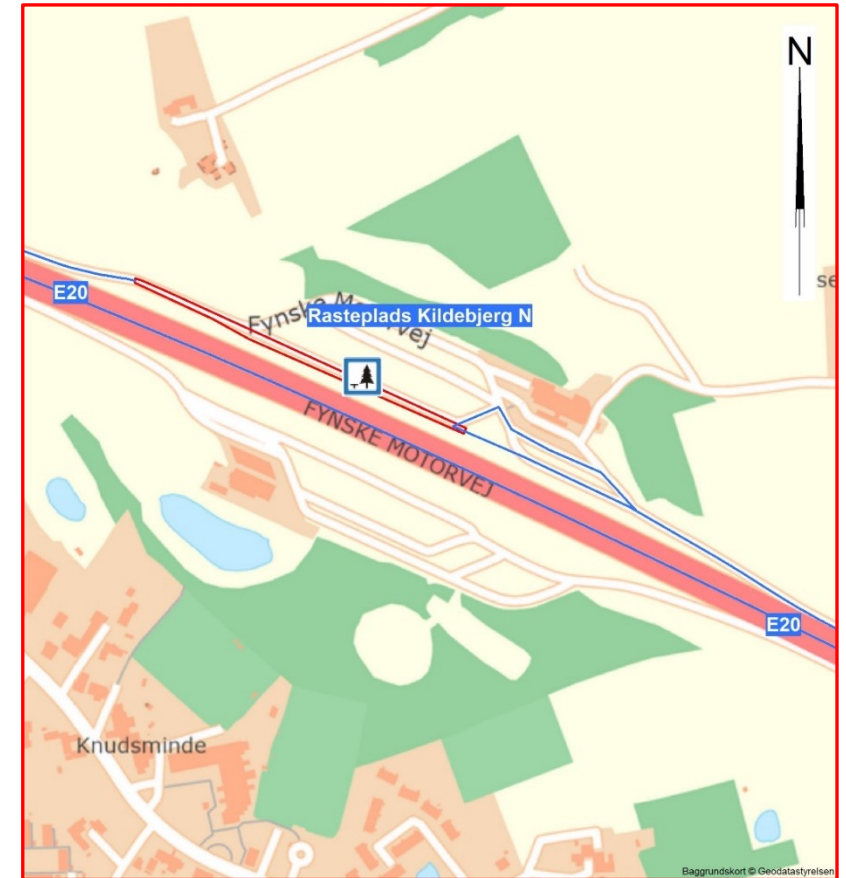
Decoupling area Aarhus



Decoupling area Taastrup



Parkingareas and gasstations on the E20



Thank you for listening.

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