
electreon
Charging the way forward
Preparing for National Deployment of Electrified Road Systems in Europe
- An Applicant's view -
anytime, anywhere

ERS Tender in France

EU: 30% reduction (vs. 2020) of CO_2 emissions for new trucks until 2030

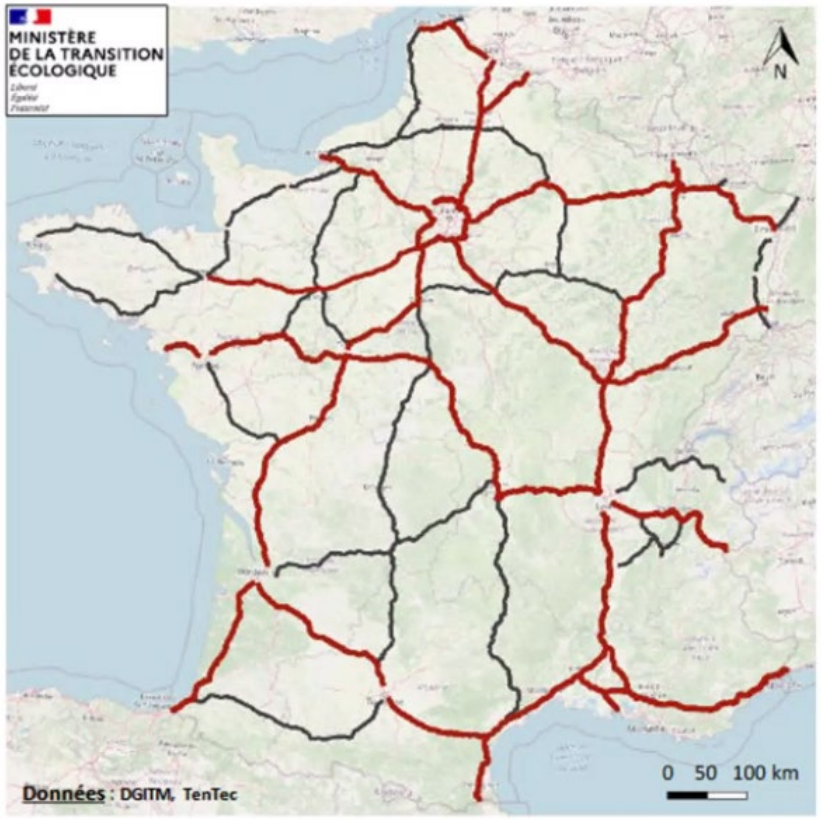
In 2021: French Work Group on Electric Road Systems concluded **ERS is the best solution**:

- Large **reduction of battery capacity** VS big battery truck (- 75%)
- TCO **equivalent to diesel trucks**
- Bigger range and no charging stops → **Less standby time**

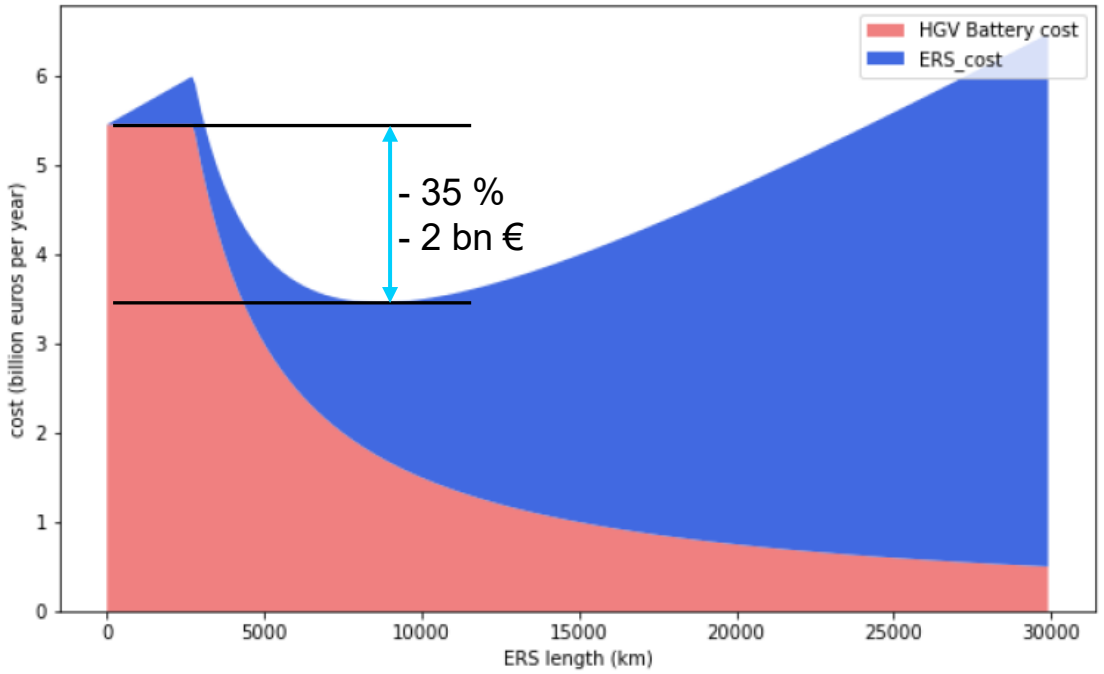
- CO_2 impact:
- **86% reduction** for HD and LCV in comparaison to Diesel trucks
- **64% reduction** in comparaison to big battery trucks

French government road map:

→ ERS on **4950 km until 2030** (red), followed by **3950 km until 2035** (black).
→ Investment between **€ 30bn and € 40bn**



ERS competiveness increases with number of users



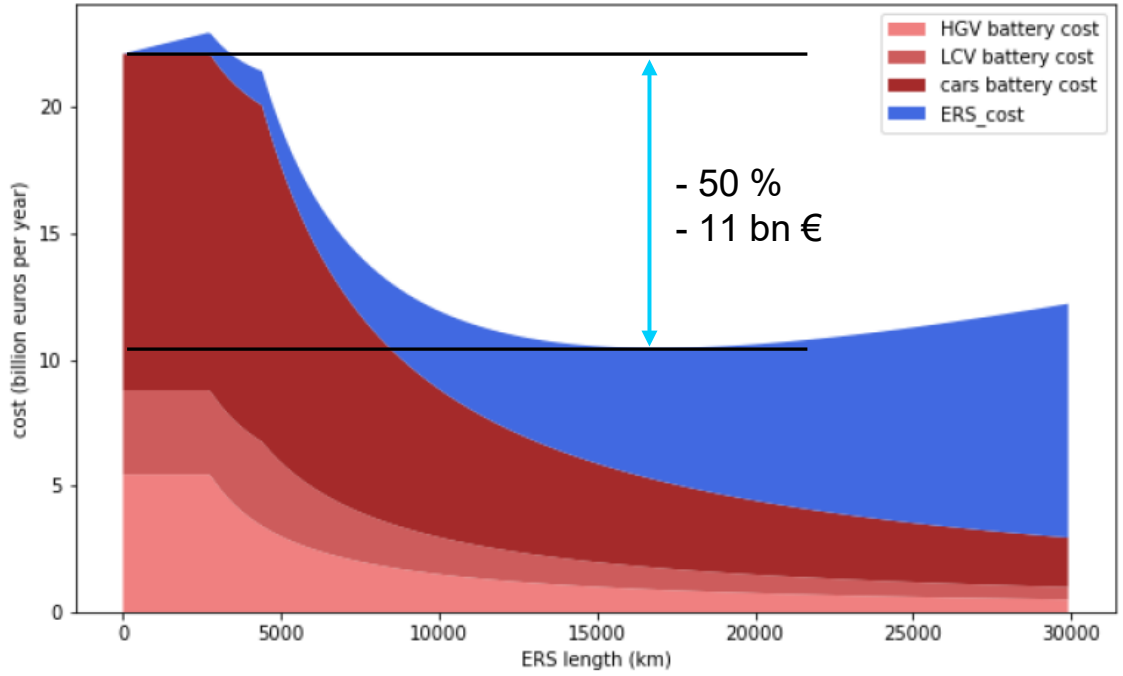


Figure 1. Total yearly investment cost including batteries and ERS as a function of the ERS length.

The electric road system: […] Fabien Perdu[a], Pierre Chaniot[b], Marc Raynal[b], François Combes[c],

Key Takeaway:

- ERS is originally expected to support HD
- LCV and casrs strengthen the renatbility dramatically

ERS Tender in Sweden

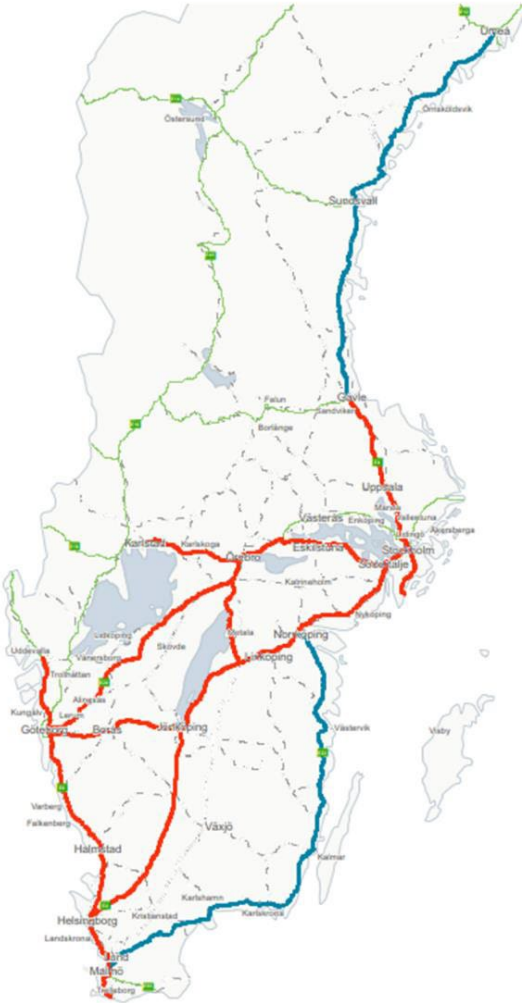
Sweedish government roadmap:

- **70% reduction** in climate emission from domestic transport (VS 2010) by 2030
- **No emission of greenhouse gases** in Sweden by 2045

This is only possible through **major electrification** of road traffic.

ERS demonstrators (Overhead, Conductive Rail, Wireless) have been deployed since 2016 to gather knowledge about **construction** and **maintenance** of ERS. Interoperability with other (static) charging solutions is beneficiary.

→ Now starting a Call for Tender for a **2 x 21km ERS section**. It will be **Sweden's first permanent electric road**.



E20 Hallsberg – Örebro

Key Takeaway:

- Focussing on domestic transportation
- LCV are also relevant to achieve CO2 reduction
- Interoperability with static charging solutions will be helpful

R&D for road deployment is ongoing supported by Gov 't entities

dura BASt, Köln

The Autobahn, Bavaria

Various Pilots include HD, LCV and Cars as well as dynamic WPT

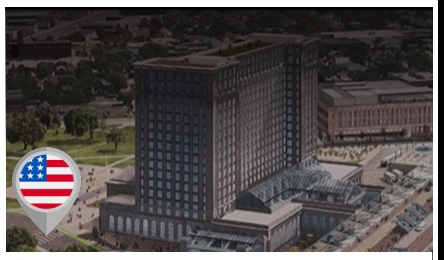
Tel Aviv

Gotland

Karlsruhe

Brescia

Tel Aviv



Big programs require a big industry

Système de route électrique

Groupe de travail n°1

Décarboner le transport routier de marchandise par l'ERS, enjeux et stratégie

Juillet 2021

France: 9000 km, ~$40bn

TRAFIKVERKET

National roadmap for electric road systems

Sweden: 1500 km, ~$7bn

Multiple National Tenders active or in preparation.

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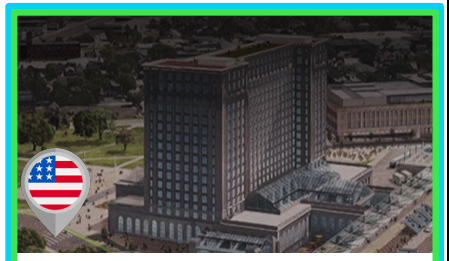

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Light & Heavy vehicles

Static & Dynamic Charging

Hope to see you all at USU!

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