



**Electric and Autonomous only make sense when going full PI**  
Per Olof Arnäs, PhD – Director Logistics Strategy, Einride

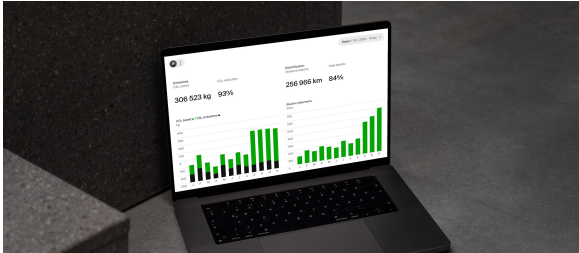


**We are a freight technology company pioneering a new era of road freight by building a sustainable, safe and smart end-to-end shipping solution.**

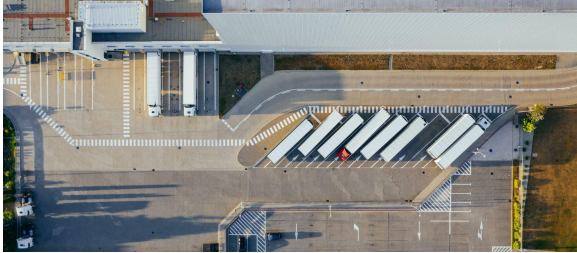
# What's driving change in transportation vs. the solution



The climate



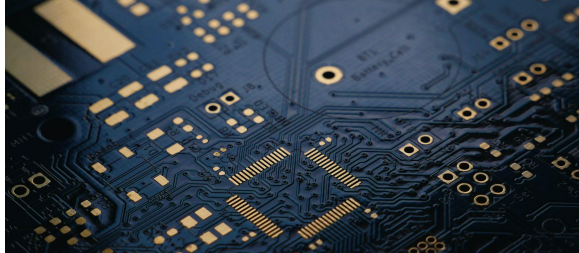
Electric Transport Service



The industry



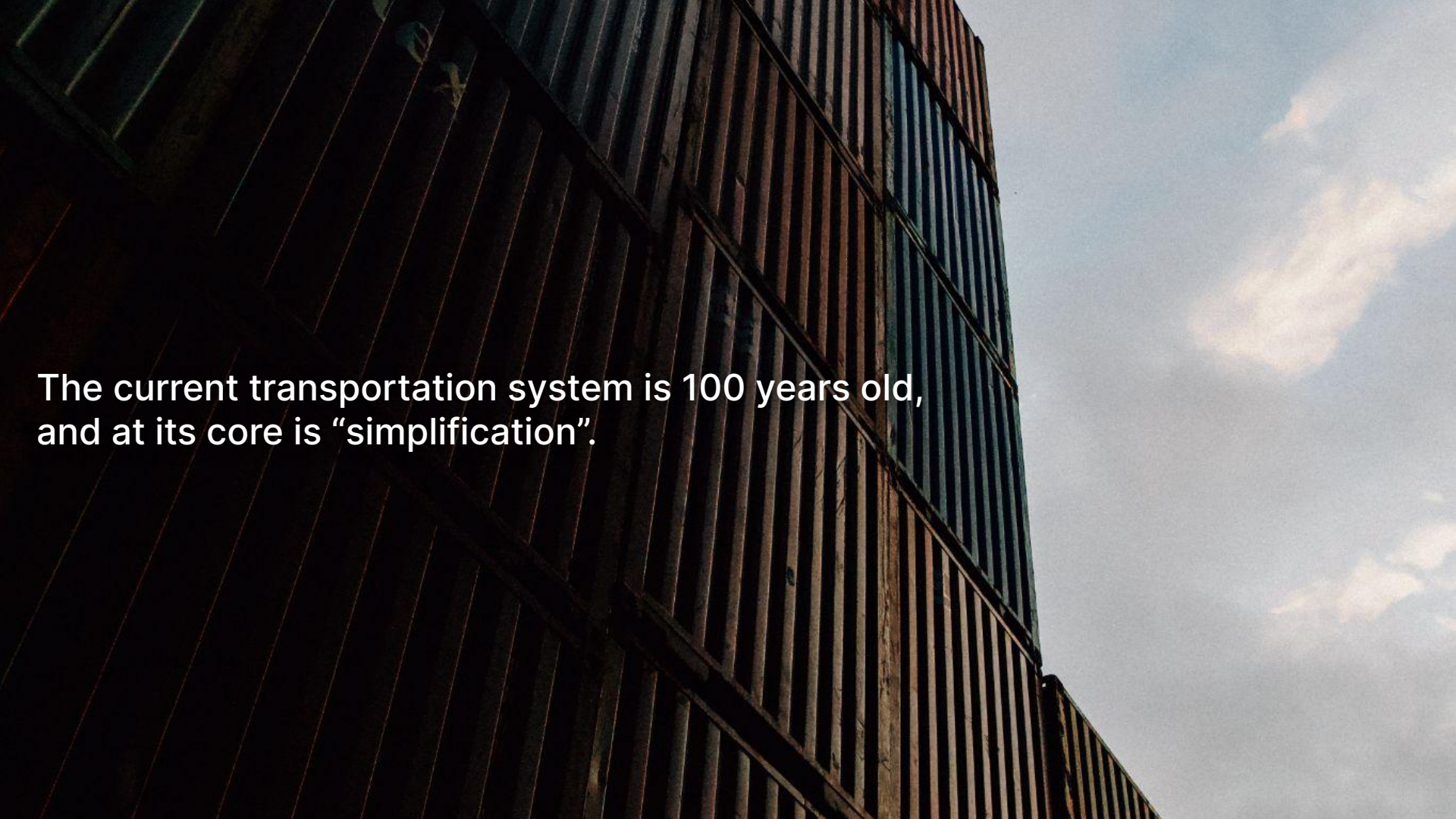
Freight Mobility Platform



New technology



Autonomous Electric Transport



The current transportation system is 100 years old,  
and at its core is “simplification”.

And when we go electric  
we introduce a new level of  
complexity...

## Planning for ICE vehicle

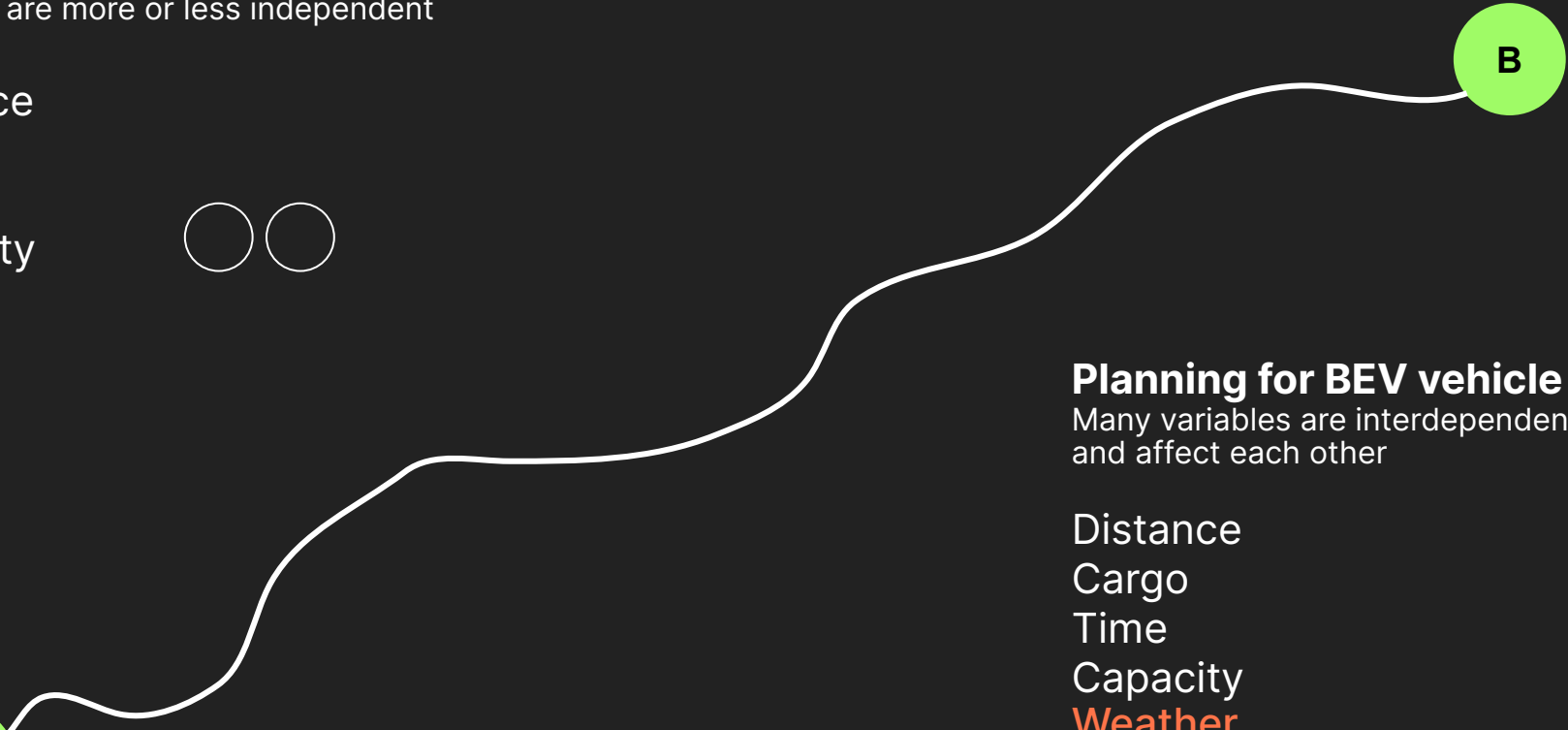
Variables are more or less independent

Distance

Cargo

Time

Capacity



## Planning for BEV vehicle

Many variables are interdependent and affect each other

Distance

Cargo

Time

Capacity

Weather

Charging

Battery size

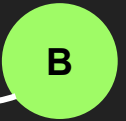
Driving speed

...



## Long term goal for ICE fleet

Maximize paid tonne-km

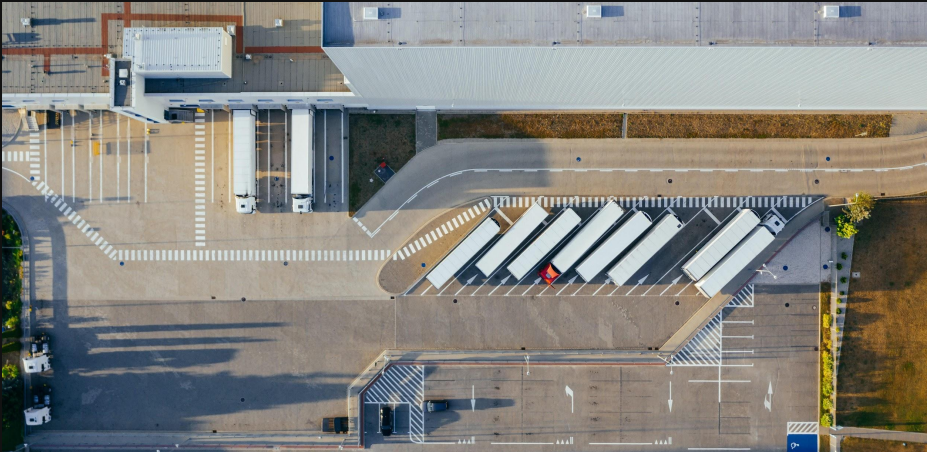


## Long term goal for BEV fleet

Make sure that battery pack is utilized at least 80% all days of vehicle lifespan, charged locally and that chargers have a high level of utilization

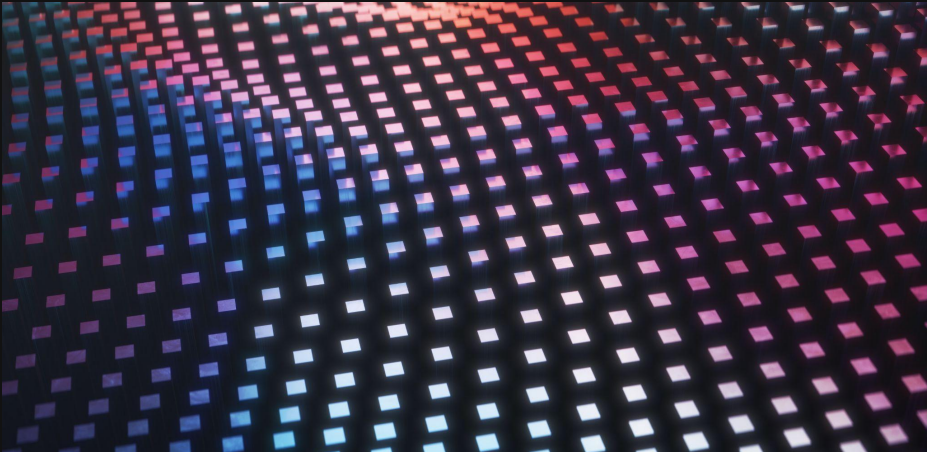
...and maximize paid tonne-km

# Physical vs. Digital first



## Physical first

The physical (existing) system becomes the norm for all development

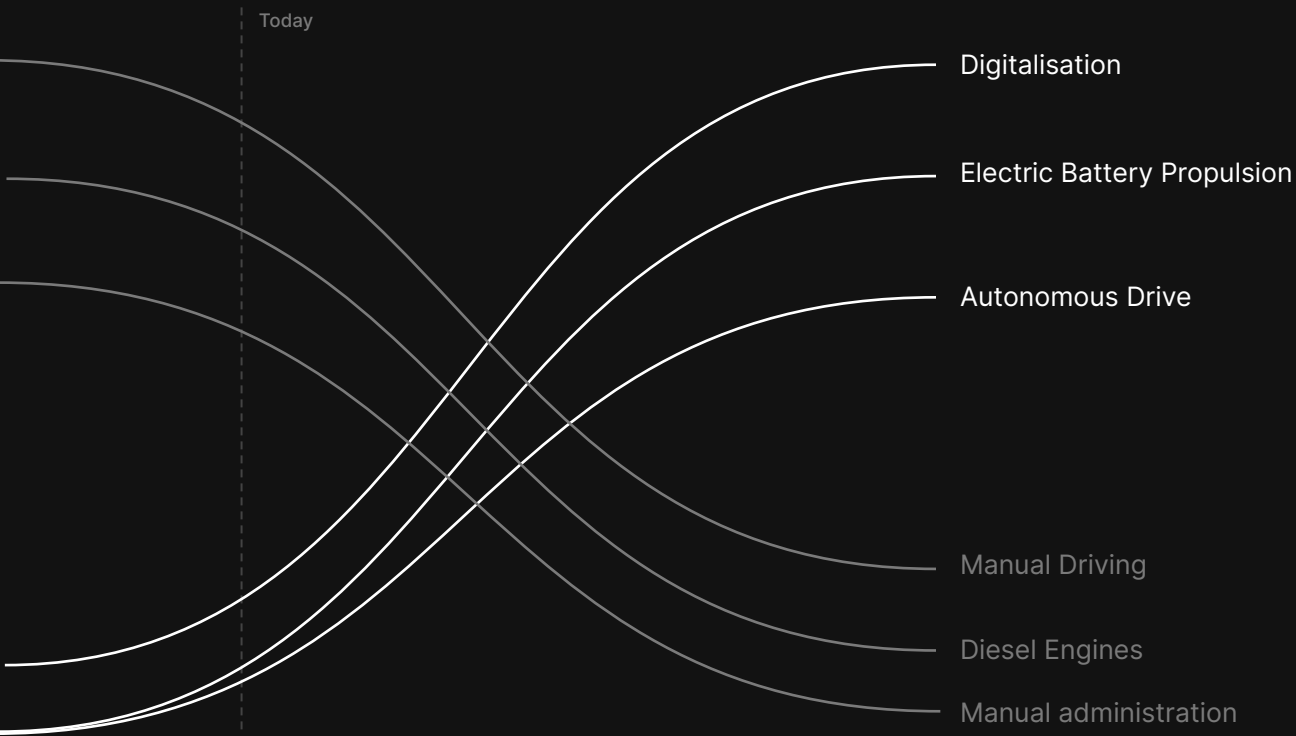



## Digital first

Data decides what happens in the physical world



# Disruptive change is coming in many areas



An aerial photograph of a winding asphalt road through a dense forest. A white semi-truck is driving on the road. To the left of the road is a calm pond reflecting the surrounding trees. The forest is a mix of evergreen and deciduous trees, with some trees showing autumn colors. The text "And that's why we need to reinvent the existing transportation system." is overlaid on the left side of the image.

And that's why we need to reinvent  
the existing transportation system.

**But how?**

# An entirely new product ecosystem



Autonomous Gen 2



Remote Interface



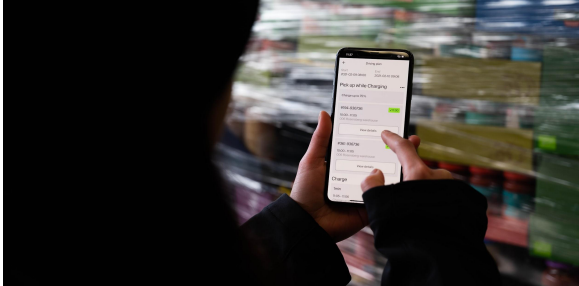
Einride Truck



Einride Trailer

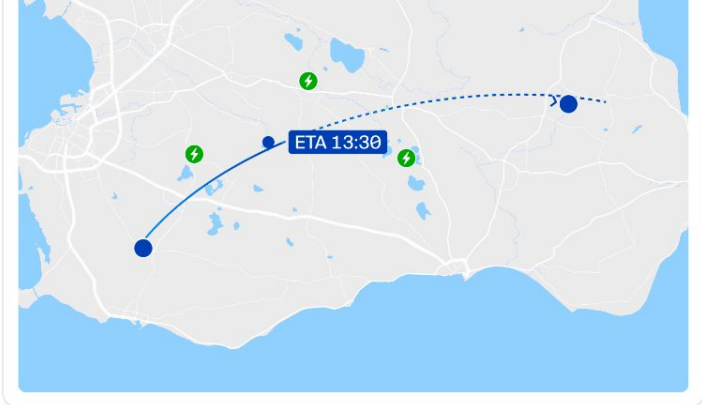


Einride Charging



Einride Saga

Project team 16 members



Create shipment →

↓ 87% vs diesel CO2 emissions

Digital key Jenny Wilson

**JW**

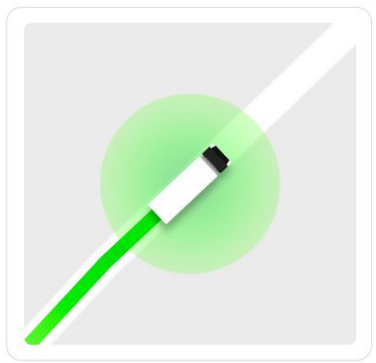
Trailer T01-223

Network health

**Good**

# Einride Saga

POD SU37 En-route



Team messages

Your shipment has been delivered on time.  
12:45

**Perfect! Appreciate it!**

Now

Live feed • Rear camera

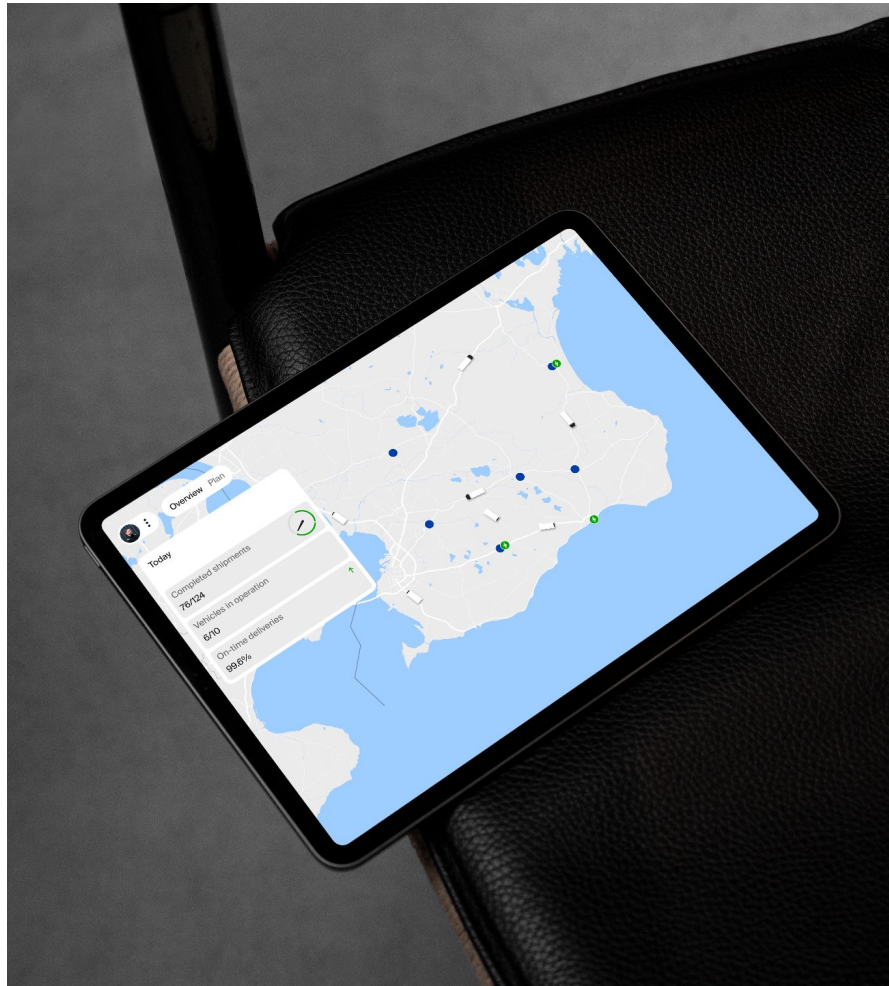
Recording 1:59:24

Cost cost(\$) per pallet

240 Diesel

**178 Electric**

Capacity 84 m³ | 90%



**Fueled by data and powered by AI, Einride Saga coordinates all parts of the transport ecosystem to deliver transformational change.**

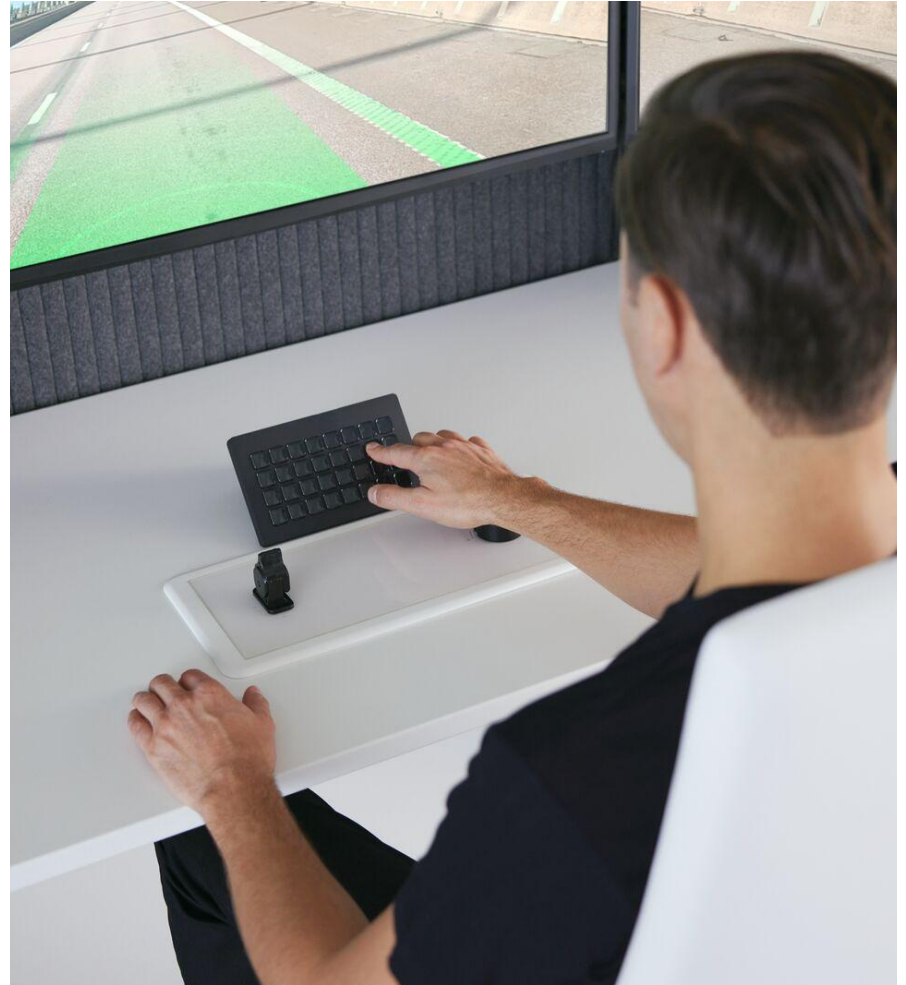
# Autonomous vehicles

100% electric and fully autonomous, with no cab. Every vehicle in the fleet can be remotely monitored and controlled. The first vehicle of its type to be operated on a public road (Sweden, 2019).



# Human-led autonomy

A new way forward. A more consistent work environment, closer to home. Introducing trucking's new career path.





# A new kind of trucker

Remote operators ensure there's a human in the loop for Einride's fleet of autonomous electric vehicles.



# Remote Interface

Introducing a new kind of workstation. Where Einride's electric-autonomous vehicles are live-monitored by remote operators.





# Einride Charging

Purpose-designed and easily accessible charging solutions, including autonomous and manual variants.

Einride Saga automates charging schedules for extended battery cycle life and to ensure vehicles are ready for the shipments ahead.



# Keeps your fleet moving

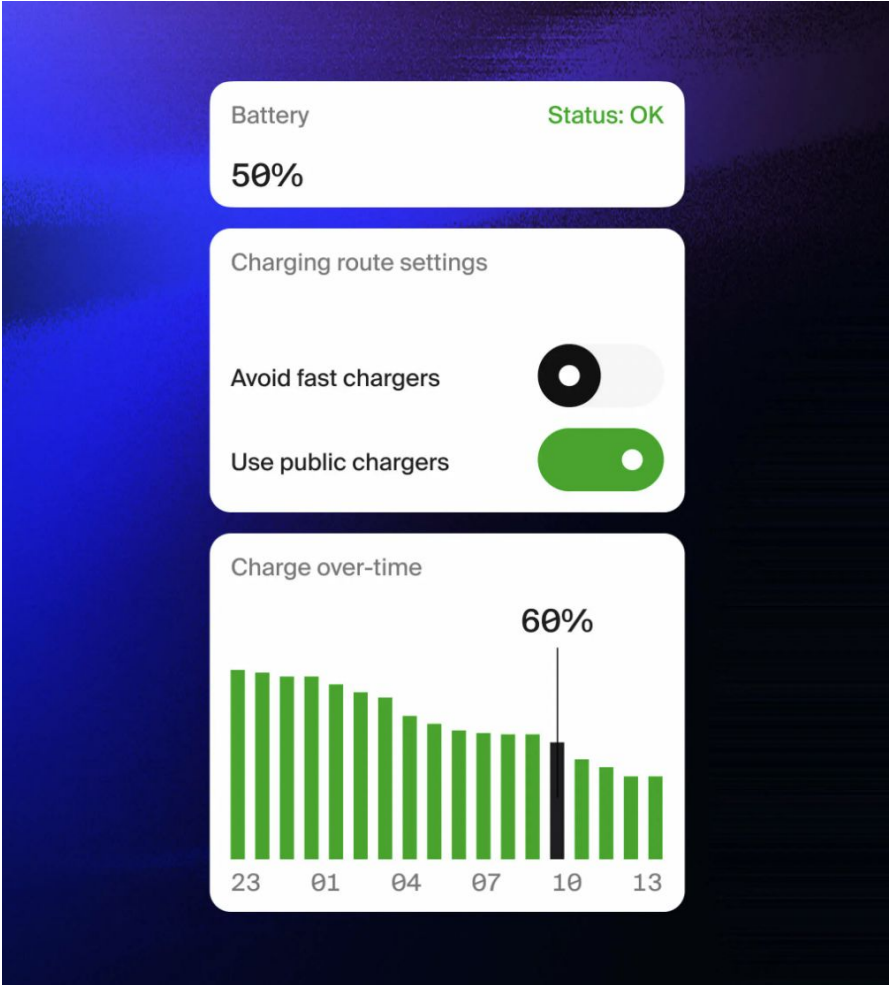
Easily accessible charging solutions that maximize on-road time and boost profitability.



# CMS & Einride Saga Charging

The Charging Management System, CMS, is the software installed in the charger to allow communication between the charger and Einride.

This will allow integration with SAGA to book, plan, and keep an eye on your current and past charging data. Vehicle - Charger - SAGA communication is key to optimize customer operations and increase reliability.





## Grids

The first-of-their-kind ecosystems that pull together all the advantages of digital, electric, and autonomous transportation to unlock capacity in strategic regions.

Einride grids  
3 continents  
8 countries



View  
**Global** ▼

Capacity, potential, tonne-km  
**↑21,995M**

Estimated CO<sub>2</sub>e savings, tonnes  
**↑1,171,333**



# How do grids unlock efficiency?

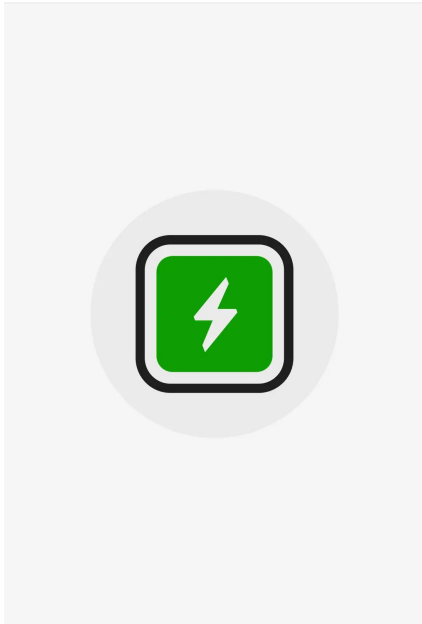
Asset Pooling



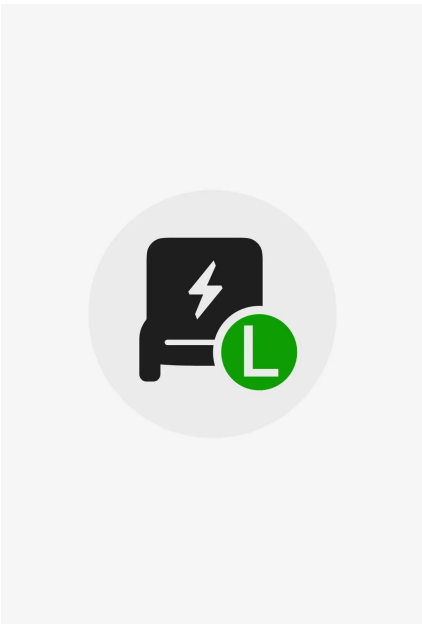
Asset Utilization



Battery and charging optimization

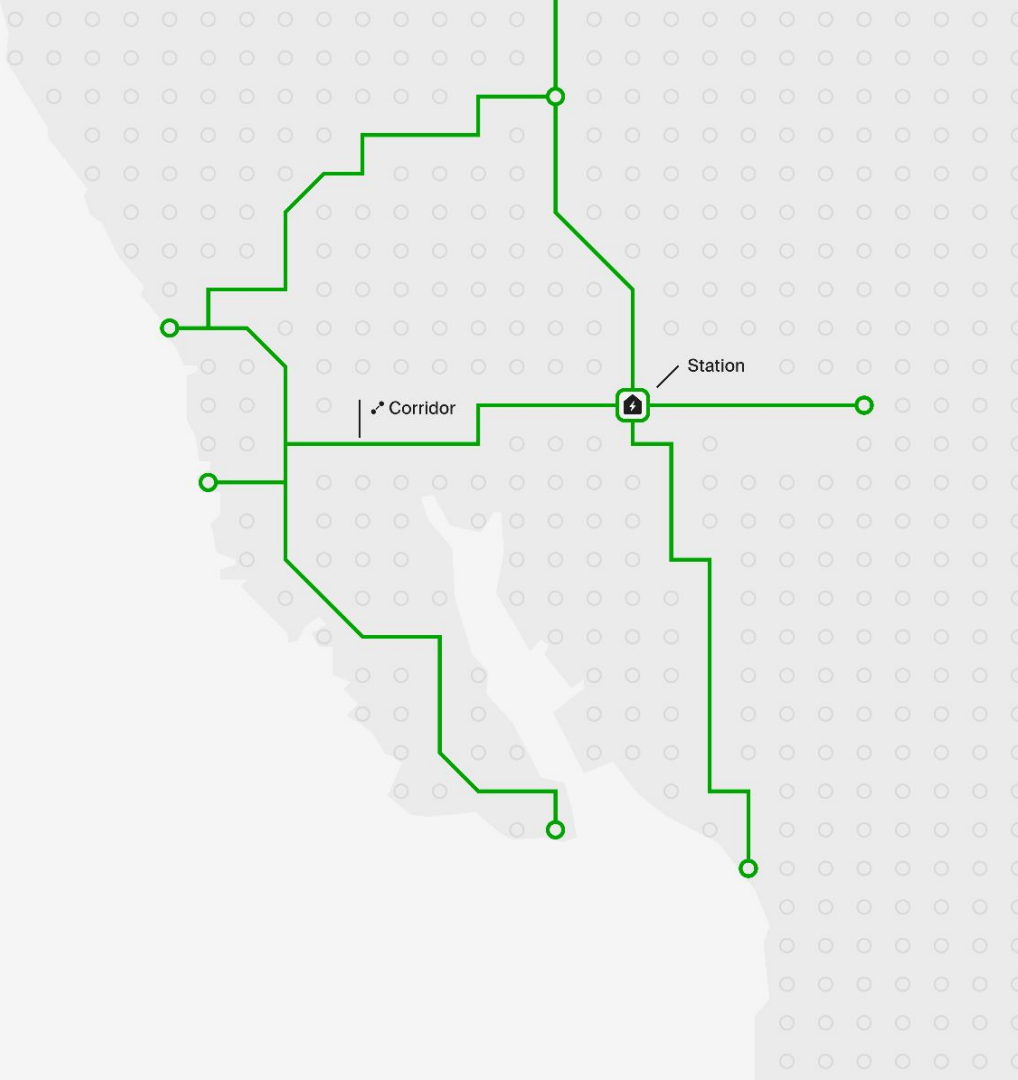


Long-haul electric transportation



# Grids

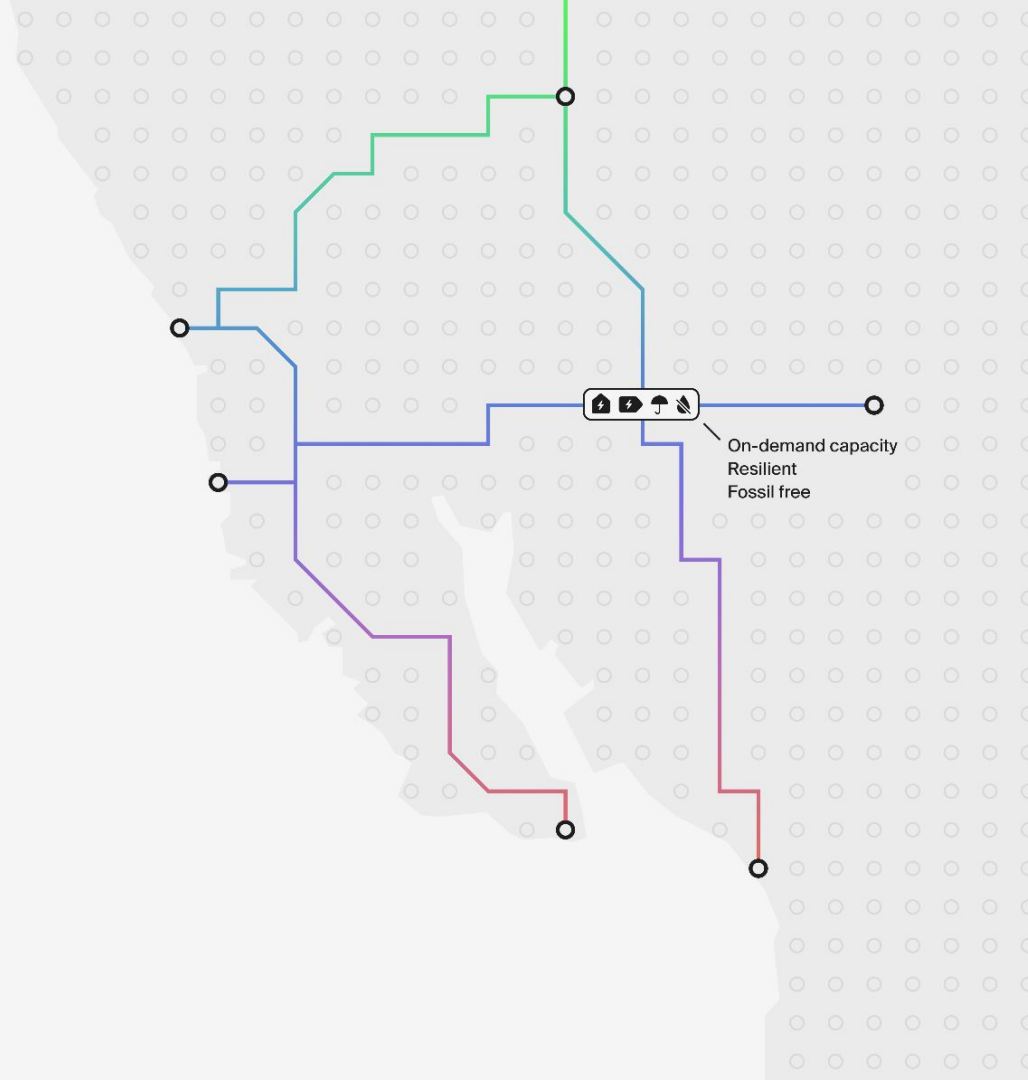
## Powering freight mobility



The grids are based around a network of green corridors. Goods are transported by electric or autonomous electric vehicles.

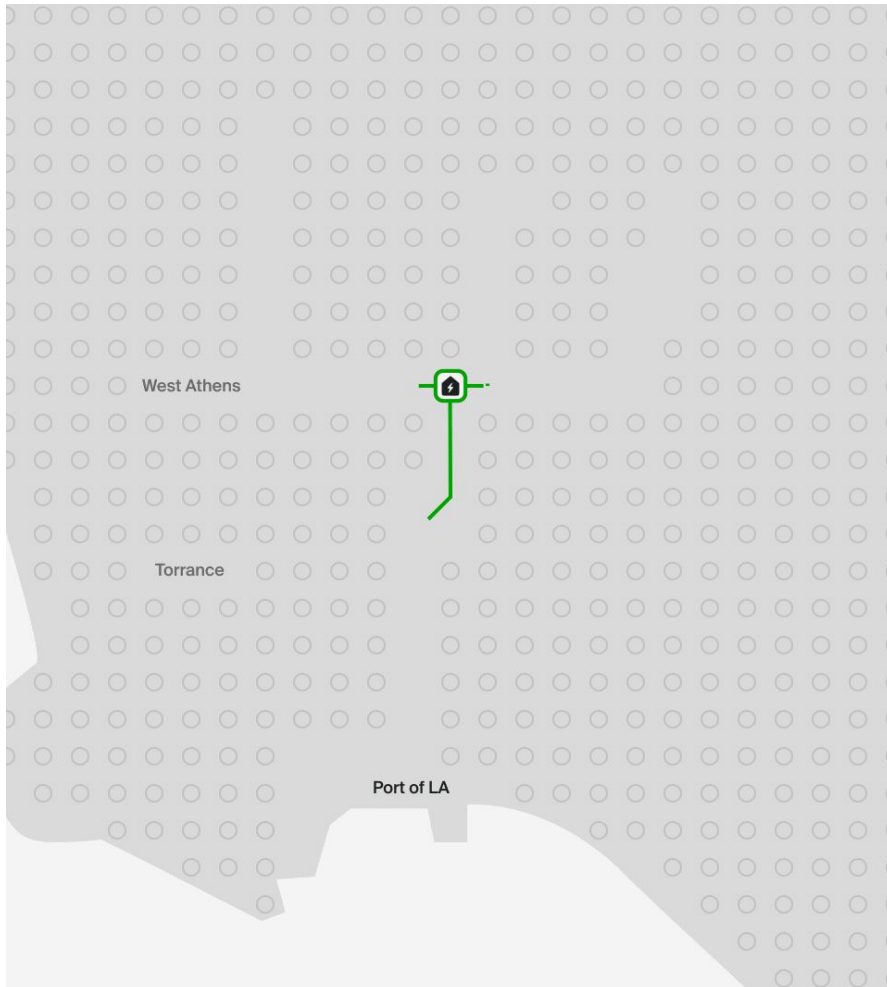
# Grids

## Accelerating electrification



Einride Saga's data and AI bring each of the grids to life, coordinating every facet of the ecosystem – from fleet charging to dynamic route planning.

# Sunset Landing Los Angeles



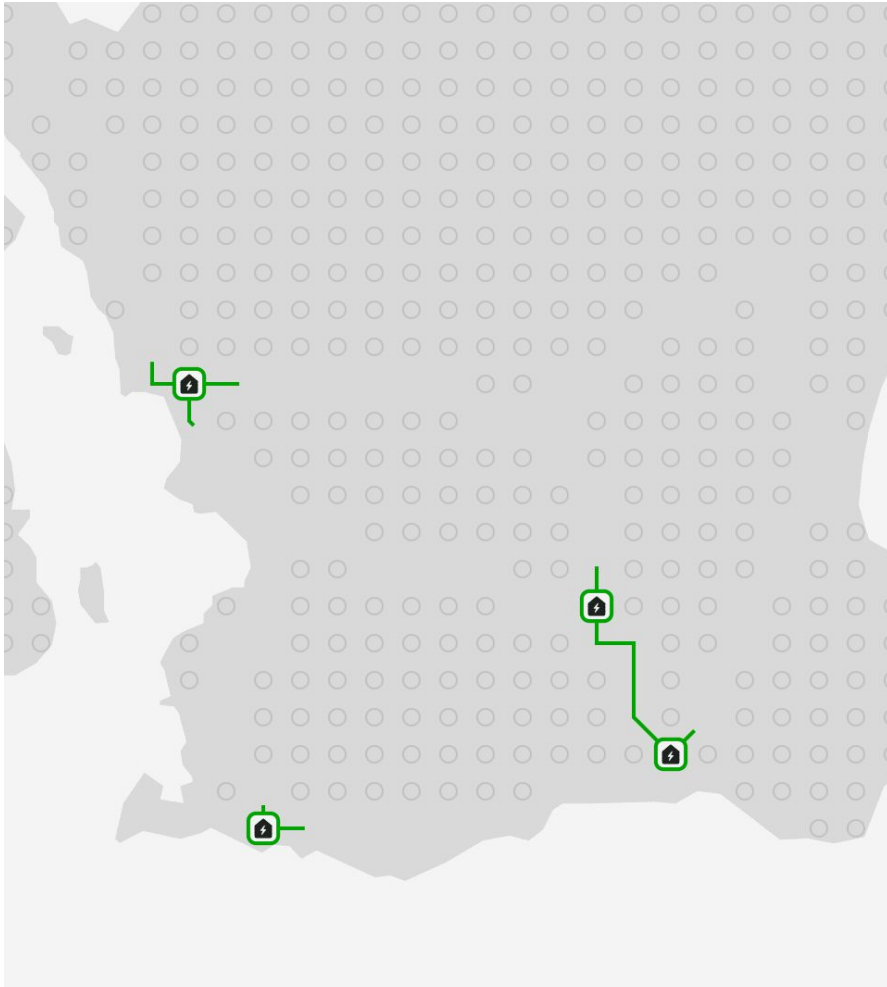
Sunset Landing helps address the congestion and inefficiencies hindering the ports of Los Angeles and Long Beach. The grid is designed to enable higher fleet productivity, cleaner air quality, and shorter wait times for drivers.



The Einride Station in Los Angeles  
In development

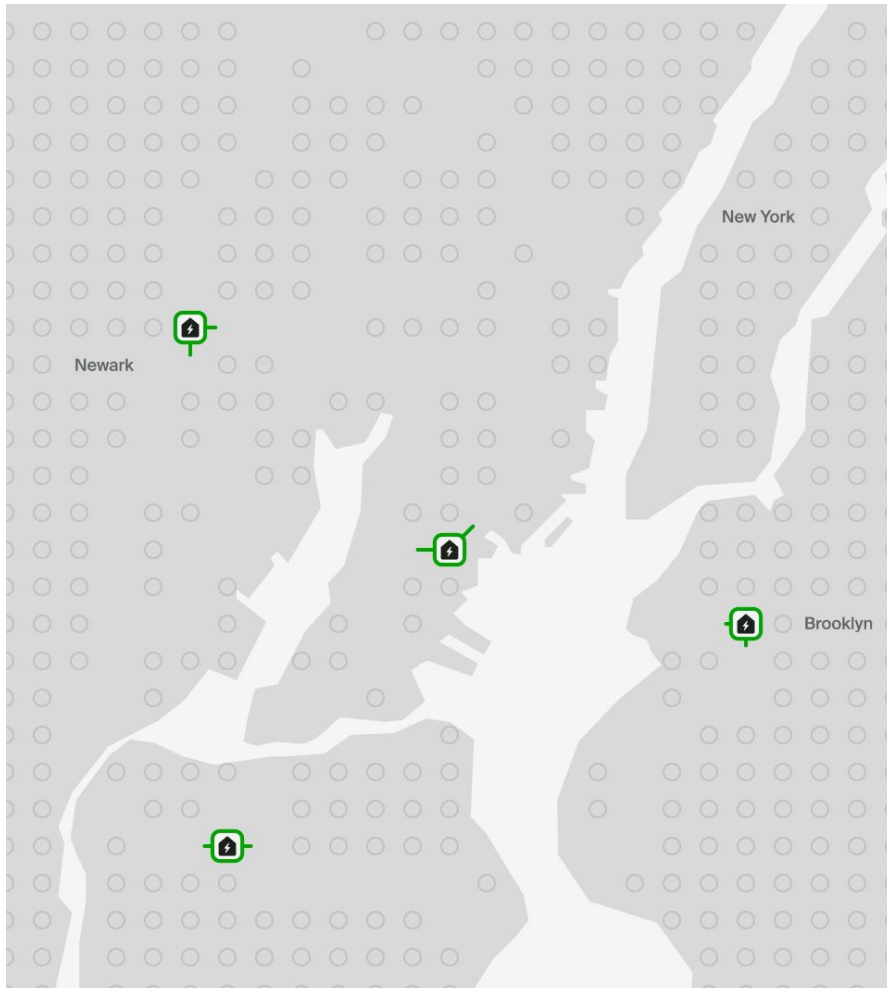
# Fresher Way

## Southern Sweden

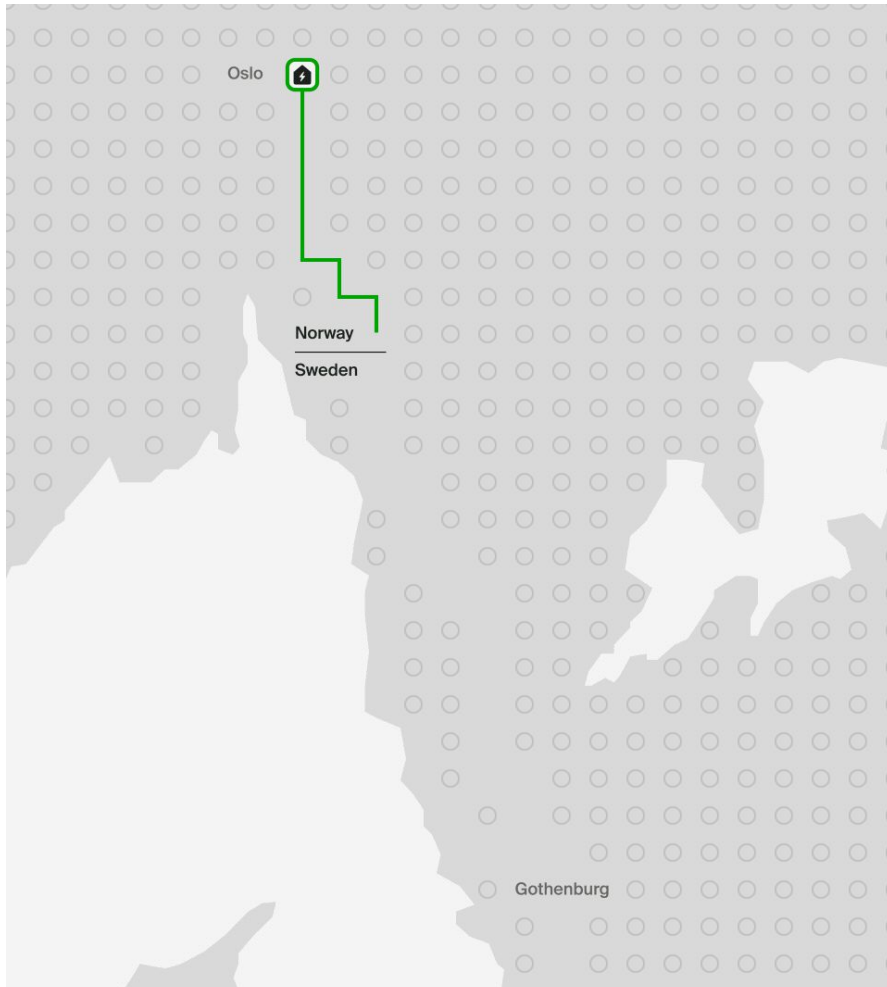


Fresher Way is the foundation for a fully electric food transport chain – one that offers high capacity utilization, increased efficiency, and shorter driver shifts.

# Empire Gate New York Tri-State



Empire Gate provides improved operational efficiencies and creates economic value from its use of existing infrastructure in the New York Tri-State area. Through the sharing of freight load capacity, this grid can reduce traffic congestion by up to 25%.



# Nordic Link

## Sweden → Norway

Nordic Link is part of a world-leading, publically supported project designed to streamline the rollout of autonomous vehicles in Europe. The wider project encompasses Rotterdam to Oslo – port to port.





Per Olof Arnäs, PhD  
Director Logistics Strategy – Einride  
[po@einride.tech](mailto:po@einride.tech)



einride