

## **PostNord Sustainability Agenda**

As Scandinavia's largest distributor of parcels and letters and state-owned company, PostNord has a major impact on the industry.

PostNord in a leading provider of parcel and logistics solutions to, from and within the Nordic region. Road transport is at the core of our business. As a transport company, our transport is of course responsible for most of our CO2 emissions - up to 90% of our total emissions comes from this.

In other words, we can create significant environmental benefits by optimizing our capacity utilization and routes, by using biofuels, by investing in fuel-efficient vehicles and equipment and by increasing the use of electric vehicles for distribution.

## **Fossil free by 2030**

PostNord has an ambitious climate agenda and aims to be fossil free by 2030.

To do so, by the end of 2025, we aim to reduce our  $CO_2$  emissions by 40% compared to 2020.

By 2027, our last-mile transport (vehicles below 3500 kg) will be emission-free (i.e. fully electrified) across the Nordic region.

## Contact

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## What we are looking for

PostNord is willing to participate as a validation partner for relevant projects related to fleet electrification, charging infrastructure and  $CO_2$  and particle pollution reduction, including AI-driven solutions.

The following sectors are of strategic importance for PostNord: AI and electrification, last mile delivery, city logistics, hydrogen, and circular economy solutions.



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#### What we can offer

- Geographical presence across the whole Scandinavia and Germany
- Fleet of several types of vehicles (below and above 3.500 kg)
- Large network of buildings in Denmark, Sweden, Norway and Finland
- Data and data collection systems

We are also looking to engage in a dialogue with policy makers to whom we can offer our experience as a significant end user in the transport and logistics sector.

We can also bring the point of view of the European postal sector on significant topics.

We believe that our input could be used for strategic planning at regional and urban level as well as policy drafting.

#### Green by PostNord

We call our transition plan Green by PostNord. The plan complies with the Paris Agreement and our specific targets\* have been endorsed by the Science Based Targets initiative. Read more about Green by PostNord on our <u>corporate website</u>.

### **Sustainability facts**

- Fleet of 13.000 vehicles
- Of which 1.700 bikes running on electricity
- 60% of our transport runs on renewable energy (biofuels, electricity)



## **Current priorities**

PostNord's infrastructure, end-user expertise and growing pipeline of test & demonstration activities offer ample opportunities for building valuable usecases in cross-cutting innovation projects. We're interested in following projects:

## **Electrification**

## Testing of superchargers for electric vehicles on last mile delivery

Testing superchargers to investigate charging speed and distance, mainly on heavy duty vehicles. 200 kw, 350 kw, 450 kw and MW charging is interesting, the more the better. Location: no specific preference, but Taulov terminal is particularly interesting.

Keywords: Electrical superchargers, demonstration partner, TRL 6-8

# Demonstration the potential of shared charging locations with other service providers.

Shared urban city hubs seem to be becoming more and more the future of Logistics. Testing shared charging locations is therefore a relevant possibility.

Keywords: Business models, market analysis, systems integration, demonstration partner, end-user expertise, TRL 7

#### Testing of battery electric trucks under different conditions.

Test the use of electric trucks on linehauls, in combination with the use of superchargers. This project is open to testing mature or highly innovative technology on heavy duty vehicles.

Keywords: battery electric trucks, demonstration partner, TRL 5-8

Al solutions for Intelligent use of electricity including battery storage

#### **Battery Storage 1**

Test the use of batteries in our vehicles and buildings to store power and release it when it is more needed, preventing the need to expand the grid. Some data modelling will be needed to clarify PostNord's needs and investigate the available capacity at local and national level.

Keywords: Batteries, smart energy, demonstration partner, TRL 7-8

### Battery storage 2

Combining self-produced solar/wind energy and intelligent charging of our vehicles using battery storage. We are looking for a solution that would allow to generate a "self-supplied" circle to charge our electrical vehicles. Additionally, batteries would allow to flatten the electricity demand rate over 24h and avoid peaking. Keywords: Batteries, solar panels, roof windmills, smart energy, demonstration partner, TRL 7-8

Last mile delivery related to decarbonization or use of robotic technology Route optimization

Which routes are the most efficient?, How can different flows be combined?, How many delivery rounds per day makes the most sense? What time(s) of the day are best? How to get drivers follow a selected route? Could be combined with cargo bikes tested in cities.

Keywords: Route planning software, data collection systems, tracking systems, TRL 6-8

## Cargo Bikes

Smart city hubs for parcel delivery in urban cities for tomorrow.

Test Cargo Bikes in collaboration with a bike provider. Testing will focus on volume of packages carried; cost efficiency; ergonomics; time saving; data collection.

Keywords: Cargo bikes, demonstration partner, TRL6-8

#### **Robotic Parcel delivery**

Testing a self-propelled robot for package delivery in Odense. The testing will focus on the robot's safety when running alone, on investigating how many and which size of packages it can transport as well as ensuring there is a business case for it.

Keywords: Autonomous driving, autonomous robotic delivery, demonstration partner, TRL 6-8

## Mobile lockers / pick-up points to allow for easier delivery and collection.

Test the flexibility of parcel lockers for shorter term pick up (specific parcels or products).

Keywords: Demonstration partner, TRL 7-8

#### Test urban logistics hubs

Locate hubs much closer to cities as an enabler for cargo bike deliveries (or similar non-disruptive delivery). This requires also that there are many more hubs in total in and around each city (i.e., a more distributed network model). There seems to several different models for this: one is the more traditional sorting terminal hub without shared warehousing. The second model is a city-close hub which also has shared warehousing space. A third model could be hub+shared warehousing+shared office spaces + recreational spaces (A good example is the Amsterdam Cityhub from ctPark).

Keywords: Feasibility studies, business models, demonstration partner, TRL 7-8

Keywords: Hydrogen trucks, long haul, feasibility studies, demonstration

## Circular economy Large deployment of reusable packaging

partner, TRL 7-8

against electrical vehicles.

Lowering material use in Packaging is important, both for greater circularity and reduced CO2. End task is to create a better lifecycle and optimize transport on packaging material in the long term.

Keywords: Reusable packaging options (innovative process or business model, or innovative material), feasibility studies, demonstration partner, TRL 5-8

#### Large scale reuse of vehicle batteries

Test how to ensure a life cycle perspective on vehicle batteries through reuse or high-quality maintenance. Vehicle design for reuse is also really interesting.

Keywords: Batteries, battery reuse, feasibility studies, demonstration partner, TRL 5-8

### Smart recycling

Using bins that inform when to be emptied. Optimizing transport of waste, consolidating transport of waste.

Keywords: Smart bins, feasibility studies, demonstration partner, TRL 7-8

## Combining last mile delivery with existing services (e.g. waste return)

Last mile delivery vehicles usually go into cities with full loads and leave empty. What can these vehicles take out of the city at the same time to reduce the total number of required trips within the city?

Keyword: Planning software, business models, demonstration partner, end-user expertise, TRL 5-8