

## Northern Netherlands is Europe's green hydrogen frontrunner

The distinctive character of Northern Netherlands for the CEF programme  
ENERGY, TRANSPORT & MOBILITY AND DIGITALISATION

### Northern Netherlands' ambitions:

**H<sub>2</sub>**

We develop hydrogen chains and production, stimulate green hydrogen application in the transport sector and create a transition-ready integrated energy network



We improve the quality of cross-border transport connections for both passengers and freight by connecting regions and make sure urban networks are fully included

**5G**

We are a unique region for innovative mobility solutions, including autonomous transport in all four modes (supported by 5G);



We develop and implement environmental and sustainability policies for public transport, logistics and other sectors within the hive.mobility network

## Our projects for CEF Energy, Transport and Digital

### Energy

***"Northern Netherlands is frontrunner in Europe when it comes to green hydrogen, and we want to strengthen our potential to the fullest."***

Northern Netherlands has been appointed by the EU as the first Hydrogen Valley in Europe, and is included in the EU Hydrogen Strategy. We have a frontrunner position in the field of green hydrogen. We invest in production, storage, transport, and purchase, which is exemplified in industry and in vehicles that use green hydrogen as fuel. A notable project is NorthH2: the construction of a mega wind farm in the North Sea that facilitates green hydrogen production. Another example is GZI next; an integrated ecosystem where locally generated hydrogen is used by, among others, the industry and mobility sectors. These examples are in line with the Hydrogen Investment Agenda of Northern Netherlands.

Northern Netherlands works with a multitude of partners including governments, private enterprises, and knowledge institutes towards realising a hydrogen economy through, among others, EU-funded innovative projects such as the FCH JU co-funded HEAVENN project. Northern Netherlands-produced hydrogen will be transported towards other regions in the Netherlands as well as other EU Member States and can serve as an alternative fuel to support the TEN-T Core Network Corridors North Sea Baltic and Rhine-Alpine.

In the electrical energy domain, Northern Netherlands plays an exemplary role in providing EU added value in terms of electricity integration and storage as well as smart grids. This is exemplified in the CEF Synergy co-funded Electric Transmission and Storage Options (TSO) 2020 project.

## Transport & mobility

***“Northern Netherlands is an innovator in the TEN-T Comprehensive Network and invests in cross-border connections, contributing to a high-quality TEN-T Core Network.”***

We focus on improving cross-border connections. The CEF Transport co-funded Wunderline project – the upgrading of the railway between Groningen and Bremen – serves as a prime example. This project is an EU-qualified Flagship Project that received two substantial financial contributions from CEF Transport.

Other notable projects focus on, among others, upgrading the existing Emmen-Rheine freight connection to also facilitate passenger travel between The Netherlands and Germany as well as research into streamlining the Amsterdam-Groningen rail connection with a possible link to Scandinavia via Northern Germany.

This applies to both the existing rail connections and the construction of new railways such as the Lelyline. Besides, we focus on facilitating the modal shift in cargo transport. We wish to shift road freight transport to inland waterways through the upgrading of waterways to CEMT class-V, and pooling return flows.

## Digitalisation

***“Northern Netherlands is a frontrunner region for initiatives in the field of digitalisation.”***

The region has introduced intelligent transport systems and is the first in Europe to test a self-driving passenger train. Northern Netherlands is a frontrunner region for initiatives in the field of digitalisation. Northern Netherlands also prioritises making transport smart and environmentally friendly.

Northern Netherlands has been active for a considerable time in the domain of 5G through, among others, 5Groningen/5G Fieldlab and 5G Fieldlab Drenthe. Here, innovations are tested and applied to the transport & mobility sector, and to agriculture, most notably through speeding up the market uptake of 5G solutions.

Our region is European frontrunner in the field of green hydrogen. We are convinced that by pooling our knowledge and expertise on energy, transport and digitalisation, our region has significant potential to contribute to the further sustainable development of Trans-European Networks.

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