

Autonomous Transport Northern Netherlands



www.at-north.nl

Groningen

- Around 600.000 inhabitants in the province, 2 mln. in the region;
- More than 250.000 in the city (of which more than 80.000 students) and the fifth city of the country;
- Main city for the region (work, knowledge, leisure, healthcare);
- City with the highest number of (staying) start-ups;
- Region has a lot to offer as well (WaddenSea, Eemshaven, leisure);
- Northern Netherlands as living lab.

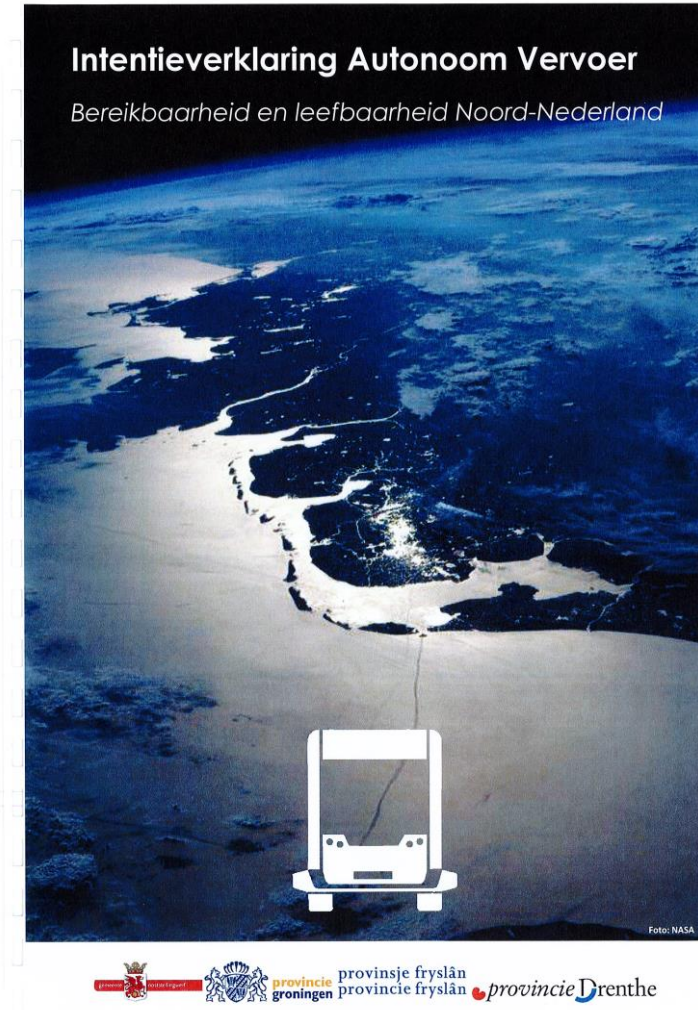
Legenda

-  Ketenknooppunt
-  Kernnet spoor
-  HOV regionale spoorlijnen
-  HOV bus (Qliner)
-  HOV bus (Q-link)
-  Basislijn bus
-  Belangrijkste aanvullende diensten



Livability and Accessibility

“We want to explore the possibilities of using autonomous (collective) transport as a means of maintaining and improving accessibility and livability of rural areas and sparsely populated areas in the North of the Netherlands.”



Why?

- Need and urgency:
 - Up to 2040 population will decline in rural areas;
 - 30% of the population in the future will be > 65yr;
 - 'First and Last Mile' transport decreases.
- Opportunities:
 - Very diverse infrastructure;
 - Low usage intensity of that infrastructure;
 - Residents and companies actively participate in new solutions;
 - Ideal test area for autonomous transport due to the relatively low risk factor.

Common objectives

- Missing link on top of the PT base network, from villages and sparsely populated areas to PT hubs for bus or train;
- Transport to and from recreational and tourist attractions and during events;
- Transport to and from healthcare;
- Improve mobility of the elderly, blind / partially sighted and disabled.

Developments 2014-2018



2016: Appelscha

- Showcase
- Bicycle path
- Development plan
- Letter of Intent



2017: 5G-Lab, Loppersum and Eemshaven

- Testing 5G
- Testing safety
- Several vehicles

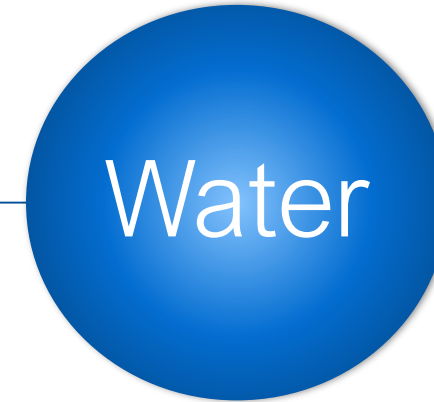
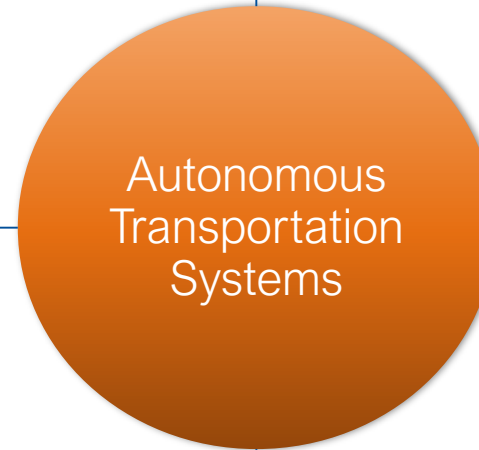


2018: Scheemda

- Exemption
- Arriva
- Businesscase
- Connection with regular PT
- Digital drivers license

Future developments

- Digital drivers license
- Remote control
- Increasing speed (Hoogezand and Hoogeveen)
- Business cases (combination with packages: Bourtange and Ameland)

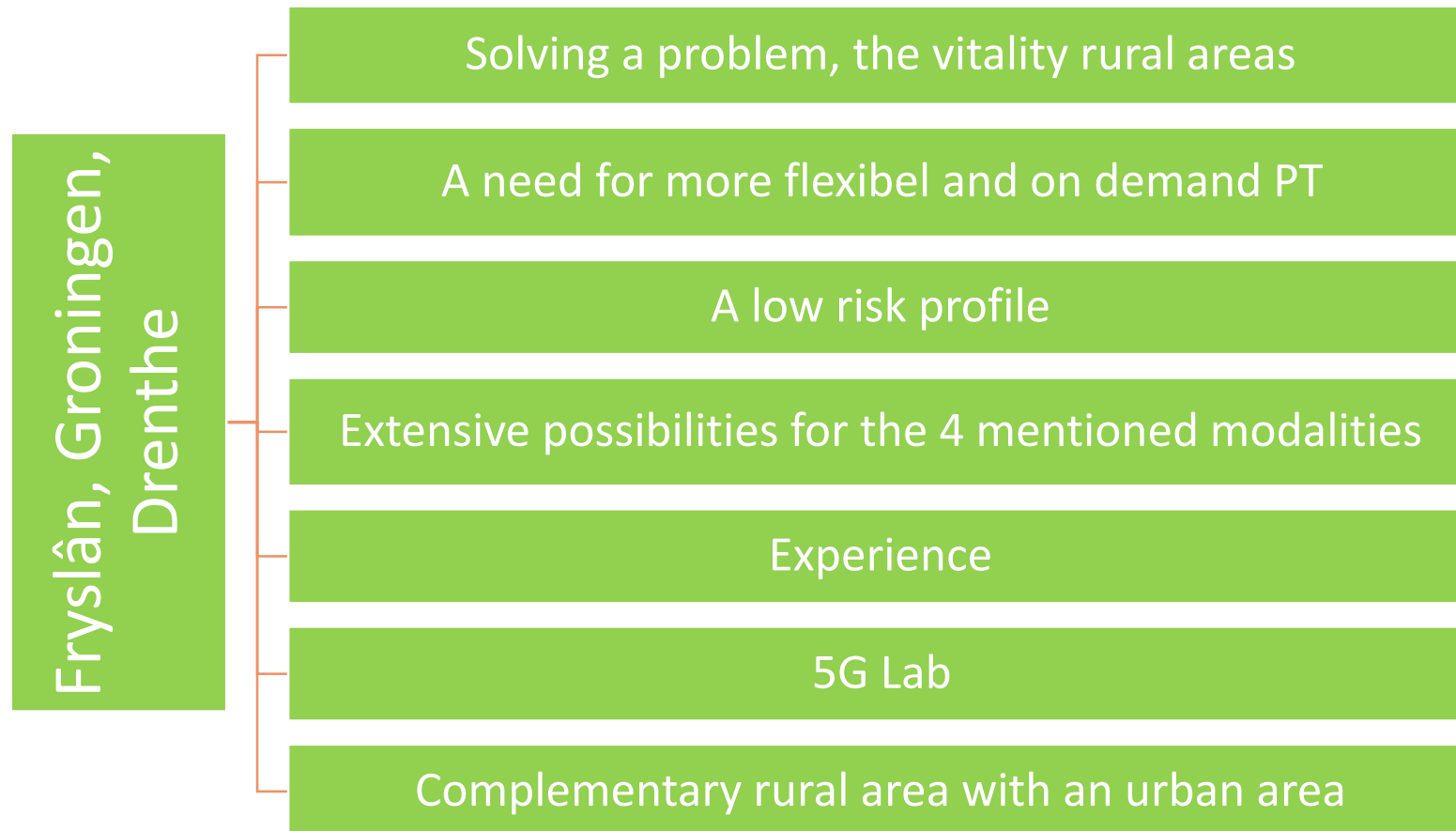


The only region in Europe with:

- Administrative support for pilots/testing *and*
- An exclusive exemption (Dronehub) *and*
- Three years experience in testing on public roads *and*
- The first pilot with an autonomous passengers train on a railroad track *and*
- Tests with autonomous shipping that start in 2019 in the port of Eemshaven. The region has the most harbours and inland waterways.



Unique proposition within Europe



Partners



Ministerie van Infrastructuur
en Waterstaat



located in Helmond, Brainport Region - the Netherlands





hive·mobility

buzzing with smart
& green innovations

Founding partners:



Noorderpoort