



NORTHERN NETHERLANDS:

EUROPEAN **MODEL REGION** FOR
GREEN ENERGY & INDUSTRY

STORYLINE

THE NORTHERN NETHERLANDS IS READY FOR TRANSITION!

To transform the Northern Netherlands into a sustainable ecosystem in which the economic dependence on fossil resources will be removed, substantial investments are required in the field of sustainable value-chains, training, and innovation.

The commitment of the Just Transition Fund makes the difference to a green future for the Northern Netherlands and offers a new perspective for thousands of residents whose jobs are currently under pressure. At the same time, these investments have an impact in the entire Netherlands and Europe, where they contribute to achieving the ambitious climate goals and enhancing an economy that is no longer dependent of fossil resources.

The Northern Netherlands, the Netherlands and Europe are ready.



GRONINGEN IS THE NUMBER ONE ENERGY PRODUCER

The discovery of Groningen gas at the beginning of the 1960s made the Northern Netherlands the number one energy producer in the Netherlands and since then the region secures the growth of (energy-intensive) industry in the Northern Netherlands.

Unlike other regions, the relatively sparse economy of the Northern Netherlands has become highly dependent on the socio-economic prospects that the industrial businesses create, based on the fossil fuel resources. To this end it can be stated that the energy sector in the Northern Netherlands provides up to 20% of the local employment in the region. In addition to this fact, the province of Groningen has the highest greenhouse gas emissions per square meters in the country and due to the gas extraction the region also experiences earthquakes since the 1980s.

Globally and at the European level, our region has the duty to drastically reduce CO2 emissions and at national level the decision has been made to halt gas extraction by 2022. The region has been heavily dependent on industries that are strong polluters. To this end energy transition in the Northern Netherlands has to accelerate by using clean alternatives and we as a region have to make a sharp turn. The transition offers us opportunities but at the same time this transition has also far reaching consequences for the Northern socio-economic situation and quality of life. Not only Groningen but also Fryslan and Drenthe will feel the consequences of the transition due to the closely linked labour market of the three provinces. The consequences are most felt in the following areas:

- The current industry has to look for other, alternative energy sources;
- The industrial facilities and current gas infrastructure will become obsolete;
- Around 20.000 employees who are currently employed in the energy sector will lose their jobs;
- The closure of the gas fields will lead to the departure of the (highly-educated) employees and this will have a devastating effect on the regional economy, education, and at the same time the cultural sector

CLOSE COOPERATION AND THE RIGHT PREREQUISITES WILL BRING US FURTHER

Therefore the provinces of Groningen, Fryslan and Drenthe are committed to providing a collaborative contribution by using the Just Transition Fund to enhance the economic development and transition of the entire Northern Netherlands. However, without external intervention the transition will take a heavy toll on the industry of the Northern Netherlands and the socio-economic situation of the population.



It is fortunate that the region is already at the forefront of the transition to renewable materials and energy. Provided by its already existing experience in fossil fuels the region is the perfect testbed for innovation in the form of clustered activities that we, for instance can see in Delfzijl, Emmen and Drachten. Additionally knowledge centres and universities in Groningen and Leeuwarden are delivering to the knowledge agenda innovation of the region, the already existing well-developed infrastructure to and from industrial areas and ports offers possibilities and the existing public-private partnerships on the thematic areas of energy, water, circularity, chemistry and digitalization offer opportunities for innovation.

For example, the mentioned activities and infrastructure have led to the development of the Hydrogen Valley in the region of the Northern Netherlands, developing a fully functioning green Hydrogen ecosystem in the region. This Hydrogen Valley is recognized to be the first European Hydrogen Valley and has benefited from the support of the Fuel Cell and Hydrogen Joint Undertaking and brings together the unprecedented ambition of both the public and private sector to invest together in hydrogen. Therefore the Northern Netherlands has everything it takes to accelerate the transition and to reap the socio-economic benefits of the transition. The following prerequisites shape the right condition for a sustainable transition:

- The Northern Netherlands has unique opportunities for companies to establish themselves or to carry out expansion activities. To illustrate, these are for instance the campuses near the knowledge institutions (campus Groningen and the water campus) and the industrial sites near customers and logistic facilities (Eemshaven, Emmtec);
- The Northern Netherlands has a strong and innovative agro-industrial sector that can play a role in the transition as a supplier of high-quality raw materials. For instance sugars and proteins. Thereby the region is already working on new crops that can absorb CO₂, such as algae.
- The Northern Netherlands is a large producer of sustainable energy from wind and sun, a hub of energy infrastructure;
- The northern Netherlands is at the forefront of the development green hydrogen production, transport and green hydrogen applications;
- The Northern Netherlands can re-use the existing energy infrastructure for alternative energy carriers such as green hydrogen;
- The labor population of the region has the right knowledge and necessary skills in the field of industry and energy and with the right training the skilled population can also become useful for the transition elsewhere in the Netherlands and other European countries;
- Businesses and institutions in the Northern Netherlands are clustered and well organized in existing networks, resulting in transferring knowledge and skills outside individual organizations. An example of this is the greening of raw materials in the Delfzijl chemical cluster and effect on downstream applications of the raw material companies in Emmen and elsewhere in the Northern region.

SHAPING THE TRANSITION. HOW WILL WE DO THAT?

In order to shape the transition towards a sustainable ecosystem in the Northern Netherlands, we have to use the potential of the region and we have to offer the labor population in the region a new perspective. This can be done by, for instance, finding alternatives for the raw materials that are used in the regional industrial sector and, by preparing our labor market for the transition and by making the existing physical infrastructure suitable for green raw materials and hydrogen. This entails the following mutually reinforcing actions:

Sustainable chains

Enhancing the industrial processes, markets, and value chains to become more sustainable and to be scaled up in order to reduce the dependency on fossil raw materials and to emit less greenhouse gasses. The region, with an integrated investment plan for green Hydrogen will stimulate the hydrogen infrastructure and hydrogen applications that are present in our regional Hydrogen Valley. As Chemport region we will build factories and infrastructure that can be used for residual flows and green raw materials (for instance sugars) via chemical and biological processes that can turn them into plastics. We thereby invest in the electrification of the industry in order to replace gas, and we develop new heating sources and grids that are suitable and usable for the industry and also can be used for the built environment. Additionally we work on the reuse of CO₂ and ensure that the pipes, waterways and roads are suitable for transporting sustainably produced products and raw materials to be transported from and to other regions in the Netherlands and Europe;

Training

Education and re-skilling the workforce to overcome the dependence between employment and the current fossil fuel industry. Thereby we are developing targeted programs for employees, students, and pupils and we work on the regional scale with both companies, schools, and universities to a dynamic workforce that will give substance to the opportunities of the transition.

Innovation

In our region are working hand in hand with both companies and knowledge institutions on innovation in the field of energy technology, digitalization and logistics. Using this strength we enhance our technology, knowledge and talent and we develop our in-house activities to further shape the energy transition and to share our knowledge beyond our regional borders through academia, publications, commercial services, and even tangible products. In this sense the University of the North is helping with this ambition by developing programmes such as Drenthe 4.0 and the campus community fund. Using our knowledge and the strength and skills of the collaborating stakeholders we develop the specializations in our Hydrogen Valley.

