

# HYDROGEN

THE MISSING LINK

JANUARY 2021

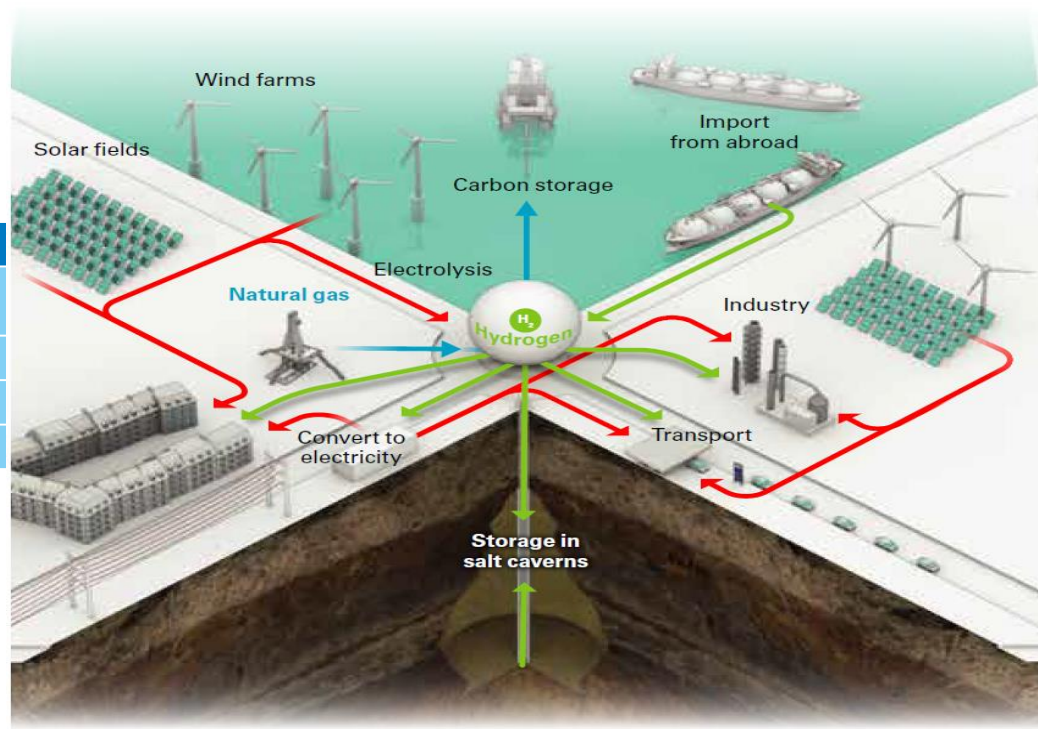
**Rli**  
Council  
for the Environment  
and Infrastructure



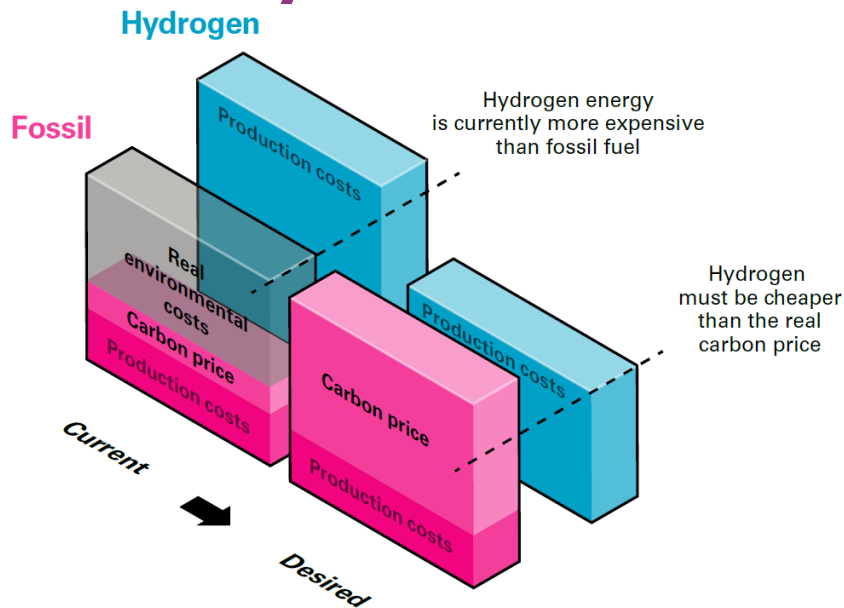
# Hydrogen is an indispensable link in the future climate-neutral supply of energy and feedstock

## System role of hydrogen

Economic sectors	Options for hydrogen use
Industrial sector	High-temperature heat Feedstock for materials
Energy sector	Flexible storage and transport of energy
Transport and mobility sector	Fuel for transport
Built environment sector	Domestic heating, domestic hot water



# A market for climate-neutral hydrogen will not simply materialise automatically



Sector specific approach:

- Non-ETS: national measures
- ETS, *carbon border adjustment mechanism* – not yet operational: sector specific national measures. Level playing field!

# Measures to stimulate demand by sector

## Shipping

- Introduce a physical requirement to blend with carbon-free fuels for use in shipping, if possible throughout the EU.

## Aviation

- Introduce a physical requirement to blend with carbon-free kerosene for use in aviation, if possible throughout the EU.

## Built environment

- Administrative requirement to blend with carbon-free gas for use by natural gas suppliers.
- Introduce an energy tax exemption for carbon-free gas.

## Road transport

- Tax incentives for zero-emission vehicles (RED II).
- Include hydrogen in the drafting of the revised European Renewable Energy Directive.

## Hydrogen production

- Issue combined tenders for electrolysis capacity, offshore wind and transport infrastructure.
- Grant subsidies for research and pilot projects aimed at large-scale carbon-free hydrogen production.

## Industry

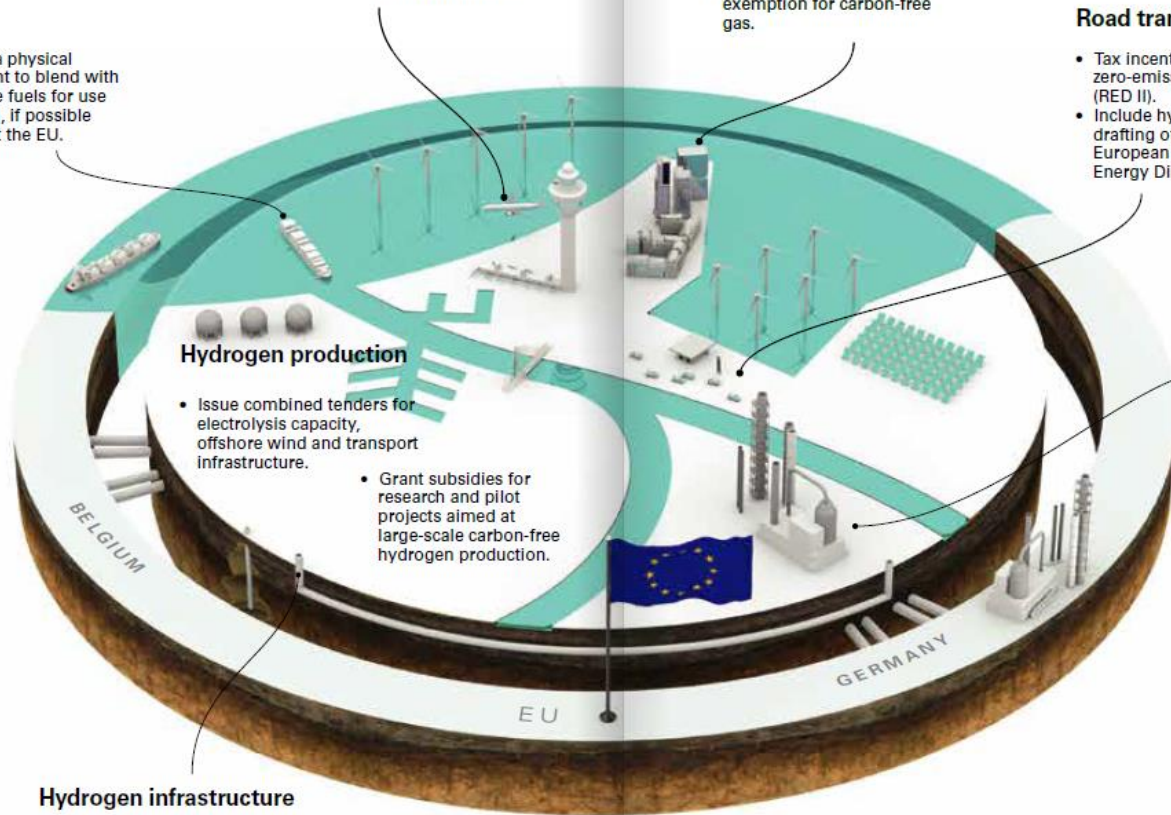
- Introduce a requirement combined with subsidies for
  - replacing grey hydrogen with blue hydrogen;
  - users switching from low-calorific gas to hydrogen.
- Grant subsidies for research and development of new applications for hydrogen.

## Hydrogen infrastructure

- Instruct Gasunie to install, manage and assume system responsibility for a nationwide hydrogen transport network.

## EU policy

- Emission Trading System
- EU carbon border adjustment mechanism.





# Approach hydrogen from a strategic perspective

- International
- Starting position  
Netherlands
- Geopolitical turbulent  
times
- Making Dutch industry  
more sustainable
- Innovation



## Essential preconditions

- Legal framework for production and handling of Hydrogen
- Public acceptance of hydrogen
- Safety of hydrogen use in public spaces

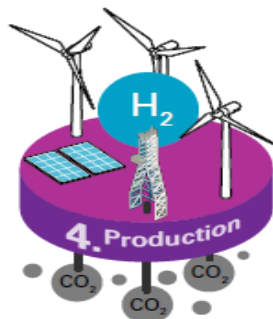




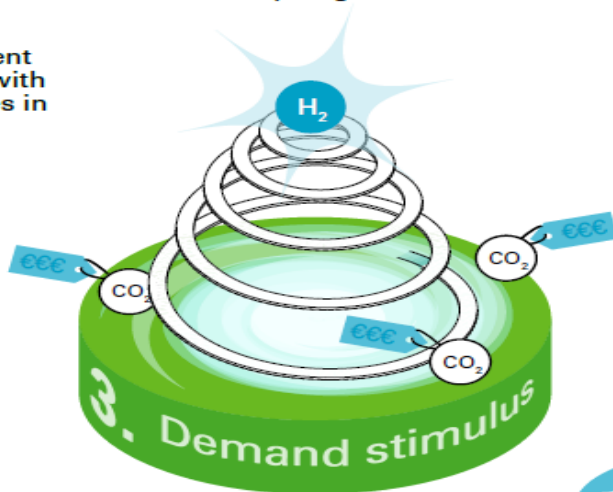


Invest in the establishment of a **hydrogen backbone** with import and export facilities in the short term

Do not exclude any forms of hydrogen production when developing a hydrogen market



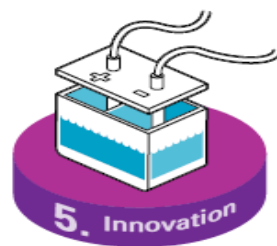
Stimulate demand for climate-neutral hydrogen



Emphasise **safety** and public support more explicitly in policy



Actively pursue **cooperation in the EU** and with neighbouring countries and develop a stronger international orientation



Provide financial support for **production and other technologies** that promote the creation of a Dutch market for climate-neutral hydrogen technology