

With these measures, the NSCA can unlock its full potential as a driver of Europe's green industrial transition, reinforcing the EU's position as a global leader in sustainable industry and energy.

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PORT OF AMSTERDAM  
MUNICIPALITY OF VELSEN  
JUST TRANSITION FUND IJMOND

VATTENFALL  
TATA STEEL NEDERLAND

SONNEBORN  
H2A  
ECOLOG  
HYCC  
CONSORTIUM IJMUIDEN ENERGY PORT

NOVA COLLEGE BEVERWIJK  
TECHPORT

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# DELIVERING THE CLEAN INDUSTRIAL DEAL A REGIONAL PERSPECTIVE

THURSDAY 10 APRIL

PROGRAMMA	LOCATION
	Permanent Representation of the Kingdom of the Netherlands Rue de Trèves 31-35, Brussels
10:30	REGISTRATION AND EXPO
11:15	Opening remarks by: <ul style="list-style-type: none"> <li>• <b>Pieter-Jan Kleijweg- De Zwaan</b> - Permanent Representation of the Netherlands to the EU</li> <li>• <b>Arthur van Dijk</b> – Vice-chair Metropolitan Region Amsterdam</li> <li>• <b>Brigitte van den Berg</b> - MEP</li> </ul>
11:30	PANEL DISCUSSION: <i>"Sustainable Industry"</i> <ul style="list-style-type: none"> <li>• <b>Brigitte van den Berg</b> – MEP</li> <li>• <b>Tom van Ierland</b> – DG Clima, Head of Unit</li> <li>• <b>Dorine Bosman</b> – CIO Port of Amsterdam</li> <li>• <b>Maarten Neelis</b> – Deputy Director Sustainable Industry - NL Ministry of Climate Policy and Green Growth</li> <li>• <b>Jeroen Klumper</b> – director Sustainability at Tata Steel NL</li> </ul>
12:30	LUNCH BREAK: Expo and break-out session on Just Transition Fund with: <ul style="list-style-type: none"> <li>• <b>Jeroen Verwoort</b> – member of the Board of Metropolitan Region Amsterdam, Deputy-Mayor Municipality of Velsen</li> </ul>
13:30	PANEL DISCUSSION: <i>"Skills for the Future"</i> <ul style="list-style-type: none"> <li>• <b>Vanessa Debiais-Sainton</b> – Member of Cabinet of Executive Vice-president Roxana Minzatu of the European Commission</li> <li>• <b>Nela Riehl</b> – MEP</li> <li>• <b>Robert Hendriks</b> – HR Manager at Vattenfall</li> <li>• <b>Erdogan Ozturk</b> – Manager Education for Electrical Engineering, Advisor Sustainability and MyTec at Nova College</li> </ul>
14:30	CLOSING REMARKS, EXPO AND NETWORKING DRINKS



## NORTH SEA CANAL AREA: ACCELERATING DECARBONIZATION AND GREEN COMPETITIVENESS

The North Sea Canal Area (NSCA) is one of the Netherlands' key industrial clusters, playing a vital role in the European energy transition. Contributing €9.6 billion in added economic value, the cluster hosts major assets such as Tata Steel, the Port of Amsterdam, and Schiphol Airport - respectively Europe's second-largest steel producer, the fifth-largest seaport in Western Europe, and a significant aviation hub. As a result, the NSCA serves as a crucial corridor for energy, materials, and logistics across the EU.

Located on the North Sea Coast, the NSCA is at the heart of Europe's offshore wind ambitions, with 21 GW of wind power expected to come ashore here by 2030. At the same time, the cluster is rapidly decarbonizing through industrial electrification, hydrogen development, and carbon capture projects across key sectors such as steel, manufacturing, and food production. The Port of Amsterdam is also transforming into a sustainable fuel hub, focusing on aviation and shipping - critical sectors within the EU's Green Deal and the 'Fit for 55' package.

By replacing fossil fuels with renewable electricity and hydrogen, the NSCA aims to reduce CO<sub>2</sub> emissions from 14.5 megatons in 2021 to 9.2 megatons in 2030, an essential step toward achieving near-complete carbon neutrality by 2050. Its integrated infrastructure, industrial scale, and innovation capacity positions the NSCA as a cornerstone of the Netherlands' and Europe's green industrial transformation.

## KEY DECARBONIZATION PROJECTS IN THE NSCA

### IJMOND ENERGY PORT

The IJmond Energy Port spans 16 hectares, dedicated to offshore wind farm installation. This site is strategically located at the intersection of supply and demand—outside the IJmuiden docks, directly by the sea, and close to planned offshore wind farms. With potential to support 21 GW installed capacity by 2030, the project is a joint effort by the Port of Amsterdam, IJmuiden Seaport, the Province of North Holland, and the Municipality of Velsen. However, successful construction will require financial support from both the Dutch government and the EU.



### HERACLESS - GREEN STEEL IN THE IJMOND (TATA STEEL NETHERLANDS)

By 2030, Tata Steel Netherlands (TSN) will reduce its CO<sub>2</sub> emissions by 40%, (5 mioT/yr), aiming for full carbon neutrality by 2045. Transitioning from coal-based blast furnace technology to Direct Reduced Iron (DRI) and electric furnaces, TSN will shut down its first blast furnace, coke & gas plants by 2030. Initially, the DRI plant will run on natural gas and/or biomethane before switching to hydrogen as soon as sufficient affordable supply is available—without requiring modifications.





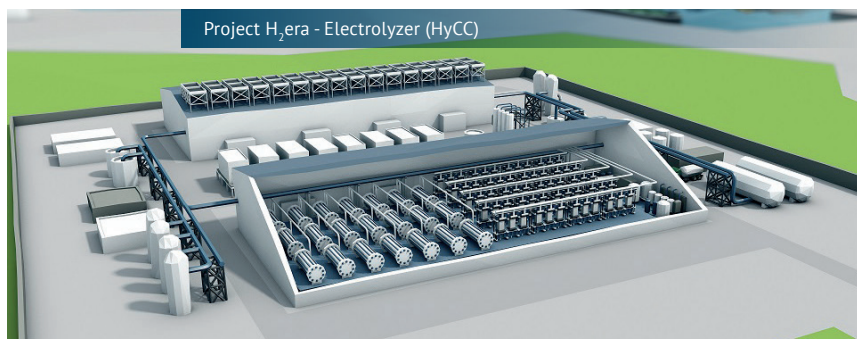
## ECOLOG NEW ENERGIES TERMINAL AMSTERDAM – LIQUID HYDROGEN IMPORT AND CO<sub>2</sub> EXPORT TERMINAL

Ecolog, a midstream company specializing in liquid CO<sub>2</sub> (LCO<sub>2</sub>) and liquid hydrogen (LH<sub>2</sub>), is developing the world's first liquid hydrogen import terminal and CO<sub>2</sub> export terminal at the Port of Amsterdam. The facility aims to import 200,000 tons of RFNBO-compliant sustainable hydrogen annually by 2029, supporting decarbonization of industry and mobility in the NSCA and beyond. Integrated with CO<sub>2</sub> liquefaction for sequestration within the European Economic Area (EEA), this project offers a dual solution for emissions reduction.



## PROJECT H<sub>2</sub>ERA - ELECTROLYZER (HYCC)

Project H<sub>2</sub>era in Amsterdam is one of Europe's largest green hydrogen initiatives. Planned for 2027, this 500 MW electrolyzer in the Port of Amsterdam will use offshore wind power to produce hydrogen, adjusting production dynamically to grid conditions. Positioned between Schiphol Airport and Tata Steel Netherlands, H<sub>2</sub>era will play a key role in stabilizing the electricity grid while accelerating the regional hydrogen economy.



## KEY KNOWLEDGE AND INNOVATION PROJECTS IN THE NSCA

### TECHPORT – SMART MAINTENANCE IN PRACTICE

Techport brings together education, industry and innovation in the NSCA.

At its Fieldlab Smart Maintenance, students and professionals learn how to use data, sensors and predictive tools to keep industrial systems running reliably.

This training directly supports the needs of companies in steel, manufacturing and offshore wind. Techport also helps develop curriculum updates, making sure education keeps up with technology.

### AMCEL (ADVANCING ELECTROCHEMICAL EXPERTISE)

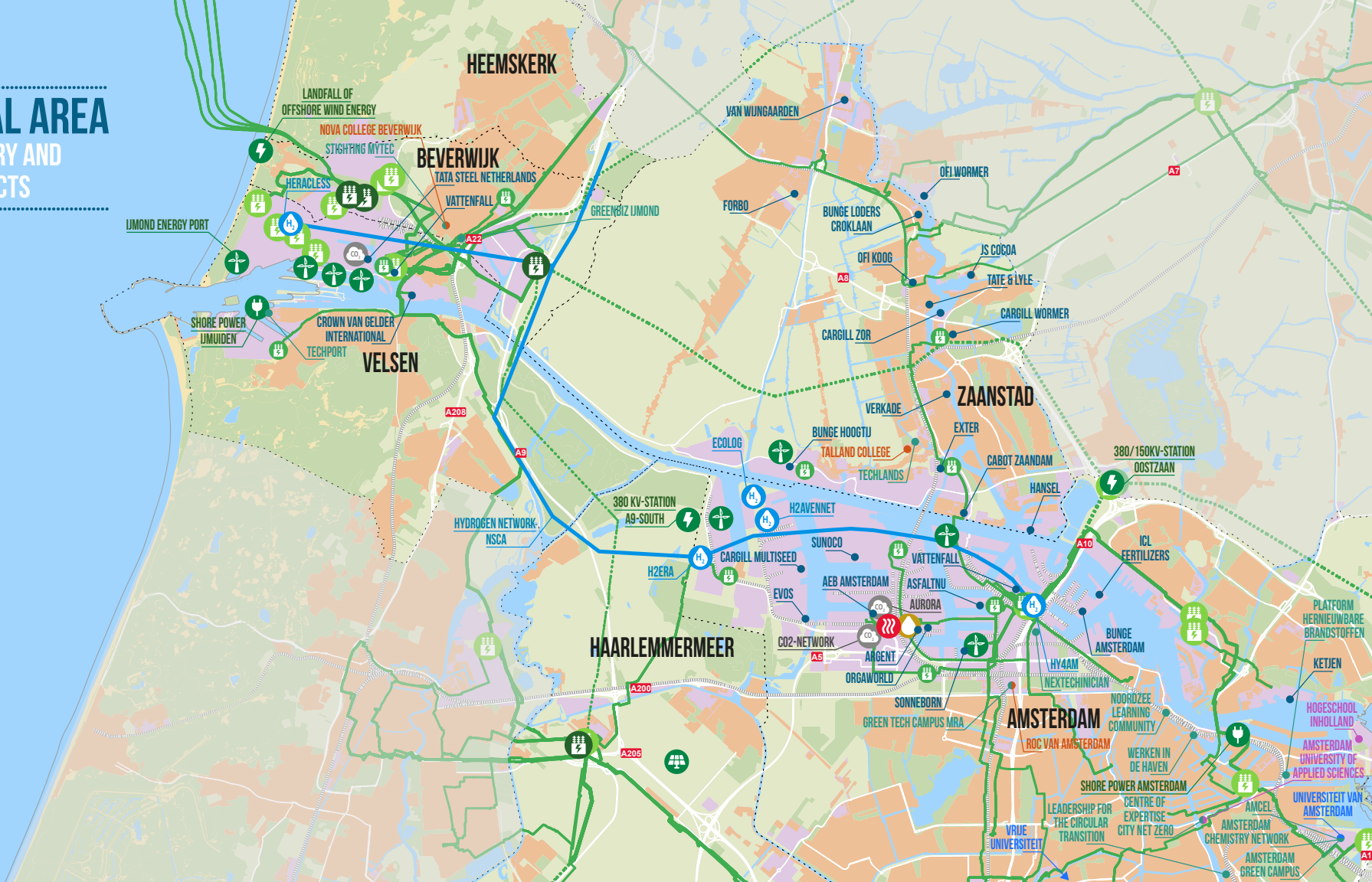
AMCEL (Amsterdam Centre for Electrochemistry) brings together educational institutions to strengthen education and research in electrochemistry – a key industry in the energy transition. AMCEL focuses on topics such as green hydrogen, battery systems and sustainable chemistry, all essential to decarbonize industrial processes. To develop new training programs, fundamental research is combined with hands-on education, in close cooperation with industry.





# NORTH SEA CANAL AREA

## ENERGY INTENSIVE INDUSTRY AND ENERGY TRANSITION PROJECTS



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### POSITION NORTH SEA CANAL AREA (NSCA)



### LEGEND

- Municipal boundaries NSCA
- Largest energy consumers NSCA
- Windmills
- Solar park
- High voltage cables
- 380 kV High-voltage stations
- 150 kV High-voltage stations
- 50 kV High-voltage stations
- Electricity
- CO2
- Sustainable fuels
- Shore power
- Hydrogen network NSCA
- Hydrogen
- Steam
- mbo
- hbo
- wo
- pss



## OVERCOMING BARRIERS: WHAT THE NSCA NEEDS FROM THE CLEAN INDUSTRIAL DEAL

In the Clean Industrial Deal the European Commission has identified the correct issues facing the Energy Intensive Industry and CleanTech sectors. While it does not contain 'silver bullets', many paths and solutions will be positive steps towards enabling the clean transformation of our Union and region. It is essential to swiftly move into implementing and expanding on identified solution areas, and to further develop areas where solutions are still insufficient to properly address the scale of the challenge ahead, such as energy.

Despite its potential, many decarbonization projects in the NSCA face delays due to unfair competition and inadequate regulatory frameworks. To address these challenges, we support the Clean Industrial Deal with attention towards the following requests:

### AFFORDABLE ENERGY

#### A LEVEL PLAYING FIELD FOR ENERGY COSTS

Energy prices in the EU remain structurally higher than in the US and Asia. Draghi concluded the EU suffers from a major gap compared to its trade partners in terms of the competitiveness of energy price levels, which vary widely between Member States. Price volatility is also a significant factor, hampering energy-intensive industries and the entire economy. And the NSCA faces high electricity network costs: 2 to 3 times higher compared to surrounding countries. The "Affordable Energy Action Plan" is crucial in resolving this issue.

Request:

- European coordination to equalize network costs or introduce compensatory mechanisms comparable to the Indirect Cost Compensation Energy infrastructure.

#### ENERGY INFRASTRUCTURE

Energy infrastructure is key to achieving the EU's energy and climate objectives at the lowest cost. Interconnected infrastructure helps guarantee security of energy supply, thus keeping prices in check, and is essential for integrating the increasing share of renewable energy sources into the EU's energy system.

Request:

- European support of the development of a trans-European network for energy (electricity, CO<sub>2</sub>, H<sub>2</sub>).

### OFFSHORE WIND INSTALLATION PORTS

To enable the switch to affordable domestic energy, the installation of offshore wind will play a key role. In order to develop 21 GW of offshore wind in 2030 in front of the coast of the NSCA we also need enough installation ports.

Request:

- Financial support for installation ports, such as the Ijmuiden Energy Port, to facilitate offshore wind expansion.

### A COMPREHENSIVE REGULATORY FRAMEWORK FOR HYDROGEN

Hydrogen is becoming a key feedstock for sustainable fuels and industrial decarbonization. Several NSCA projects focus on the supply of hydrogen (electrolyzers and import terminals), but regulatory barriers threaten progress. For example: a lack of clarity in implementation and harmonization of RED III throughout the Member States.

Current EU regulations treat hydrogen as an industrial gas rather than an energy carrier, failing to reflect its role in the energy transition. Additionally, bulk transport of liquid hydrogen via inland waterways is not permitted, restricting distribution.

Request:

- An updated regulatory framework for hydrogen carriers, including permission for inland shipping of liquid hydrogen (e.g., inclusion in ADN 2027).

## LEAD MARKETS

### STIMULATING PREDICTABLE MARKET DEMAND FOR CLEANTECH PRODUCTS

Creating market demand for low-carbon products is essential for the future of European industry and sustainable growth. This provides European companies with a stronger investment perspective in sustainable products and enhances Europe's resilience.

The industry in the NSCA region is ready to produce cleantech solutions and low-carbon products, but demand remains insufficient to justify scaling up production. Without adequate market demand, investments in cleaner and more sustainable production will lag behind.

Request:

- Create European market demand by mandating a required percentage of low-carbon products.



## CBAM: EFFECTIVE PROTECTION AGAINST CARBON LEAKAGE

To prevent carbon leakage, the Carbon Border Adjustment Mechanism (CBAM) was introduced. However, significant risks of carbon leakage persist. CBAM imposes a CO<sub>2</sub> tax on the import of bulk steel, plastics, and synthetic materials but not on these materials when incorporated into imported finished products (such as cars, furniture, or toys). As a result, Europe risks losing not only its basic industries but also entire value chains.

To strengthen competitiveness and sustainability in the industry, CBAM must be improved. The desired adjustments include:

- Expanding CBAM to (steel-intensive) downstream goods and semi-finished products to prevent carbon leakage across the entire value chain.
- Introducing an exemption from CBAM obligations for emissions from European installations exporting precursors that are later reimported into the EU as CBAM goods.
- Finding a solution for exporting CBAM products to non-European countries, as European products subject to CO<sub>2</sub> pricing may struggle to compete with locally produced alternatives.

Request:

- A well-functioning CBAM with clear and simple product requirements.

## FINANCING DECARBONIZATION AND ENERGY PROJECTS

Complex regulations and administrative barriers can hinder industrial growth and the implementation of clean energy projects. We support initiatives like the Net Zero Industry Act in order to speed up permitting for industrial decarbonization projects.

But due to the implementation deadlines and lack of clarity of the laws, the RED III and the NZIA have no direct impact on the ongoing projects, although this is very desirable. The unpredictable lead times pose a significant risk.

Request:

- Simplifying and quick implementation of regulations in order to speed up current projects.

## CLARITY AND CAPACITY FOR CLEAN INDUSTRY SKILLS

The clean industry depends not only on infrastructure and innovation, but also on people with the right skills. EU initiatives such as Green Skills for Hydrogen and Union of Skills have laid an important foundation by identifying key skill areas. However, clear and broadly applicable skill profiles, learning outcomes, and expected workforce demand for clean industry roles are still lacking. Meanwhile, both education providers and industry need more support – in time, in funding and in flexibility – to jointly develop and implement future-proof curricula.

Requests:

- Targeted funding for education providers and industry to jointly update curricula and pilot new training modules focused on the industrial energy transition.
- Support the training of practically trained talent for the energy transition, e.g. electrical engineers or offshore maintenance workers.
- Support in attracting new workers and target groups for the energy transition, such as career switchers, retrainers, and skilled professionals with specific abilities that can effectively contribute to the energy transition.
- Create better defined skill profiles and expected workforce demand for clean industry roles, building further on existing EU efforts and insights.
- Stimulate the development of technological innovation during the various phases (TRL 1-9) of scaling up. By supporting both the innovation itself as the availability of test facilities.