



## Status offshore en hydrogen projects in Belgium March 2025



# Belgian EEZ smallest zone in the North Sea



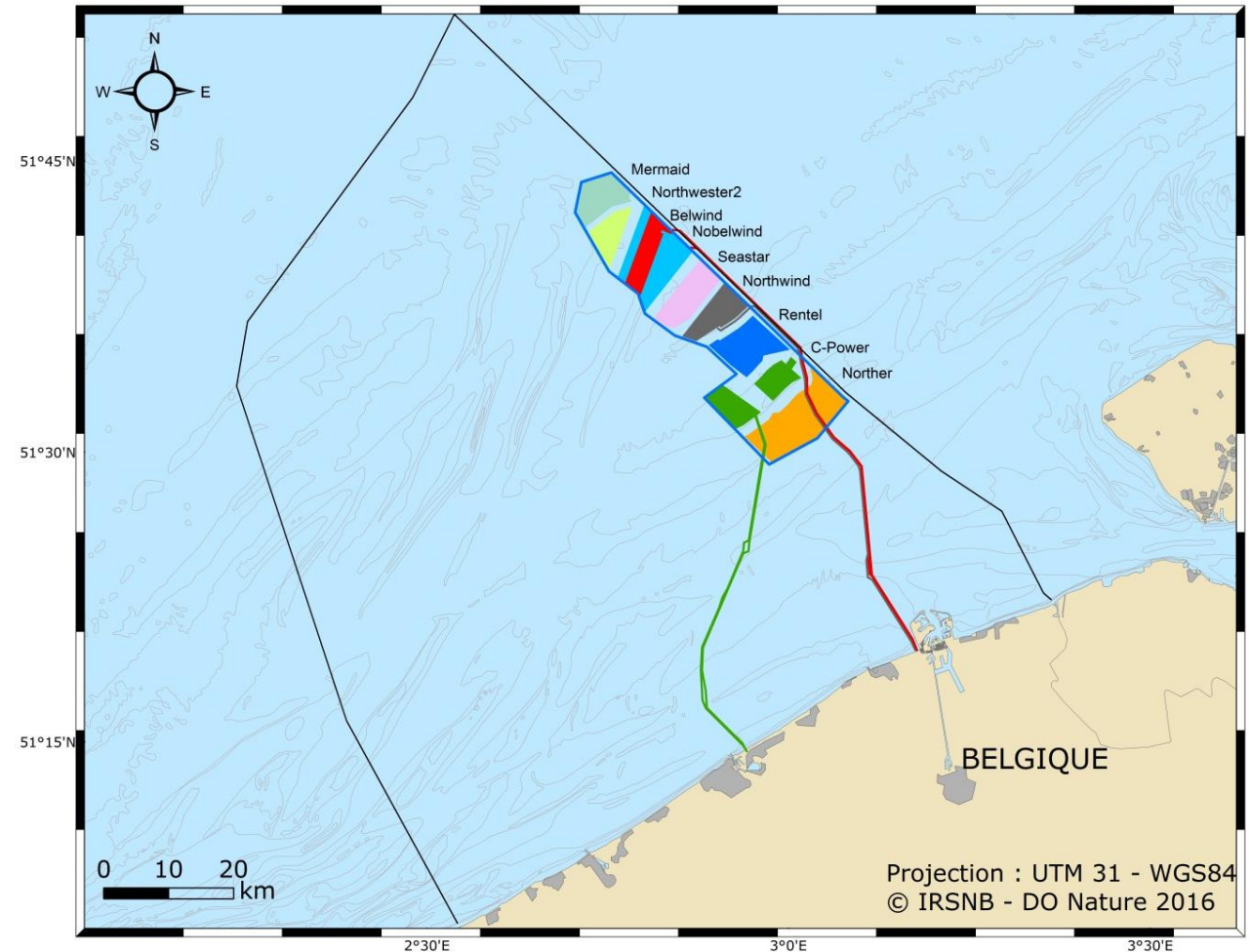
**No. 1 worldwide**  
offshore wind energy per km<sup>2</sup> EEZ

**No. 4 in EU**  
offshore wind energy production  
offshore wind energy per capita

Surface area of the Belgian exclusive economic zone  
is **3457 km<sup>2</sup>**, the size of a small province

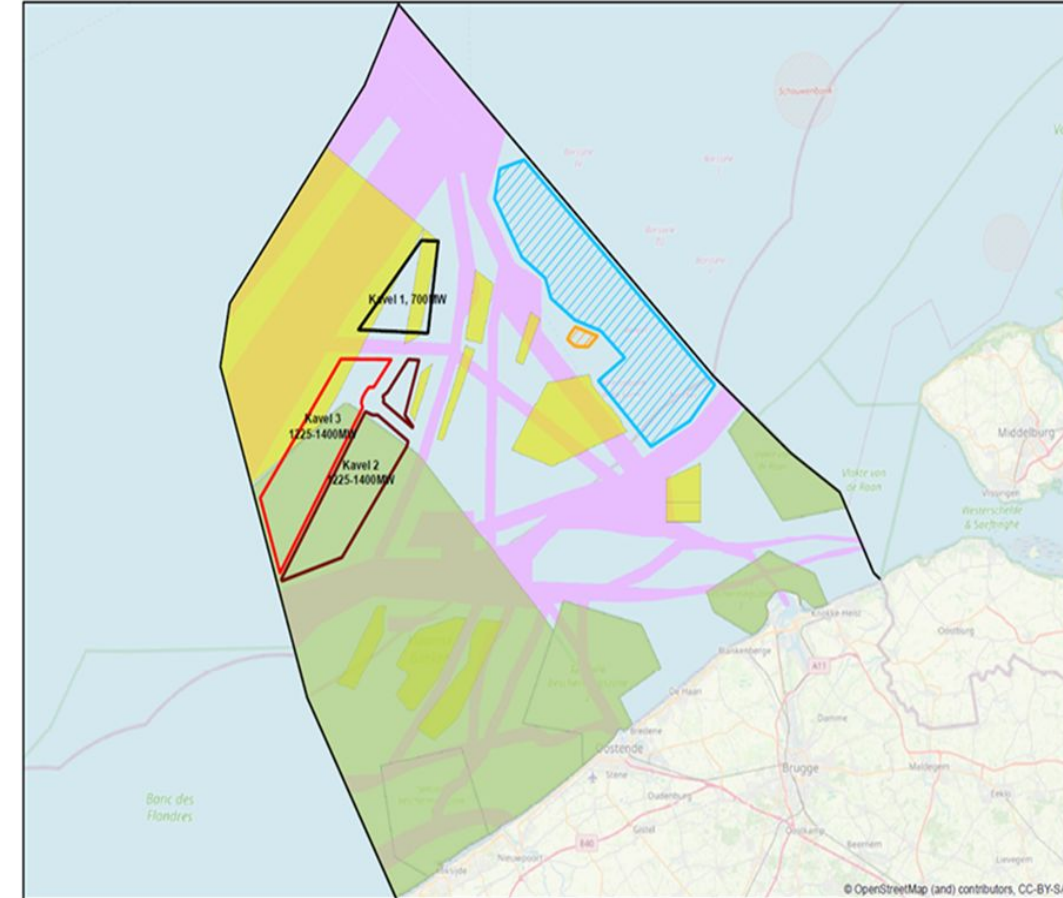
## Current capacity

- ⇒ 2261 MW
- ⇒ 9 Parks
- ⇒ Zone: 225 km<sup>2</sup>





- Council of Ministers' decision of 15/10/2021:
  - ⇒ envisaged capacity for Princess Elisabeth Zone of 3,15 – 3,5 GW + connection through an energy island
- Council of Ministers' decision on the lots:
  - ⇒ division into three lots with corresponding maximum installed capacity of:
    - 1) 700 MW
    - 2) 1225 – 1400 MW
    - 3) 1225 – 1400 MW



## 2nd offshore-zone to be developed before 2030

- 3 lots:

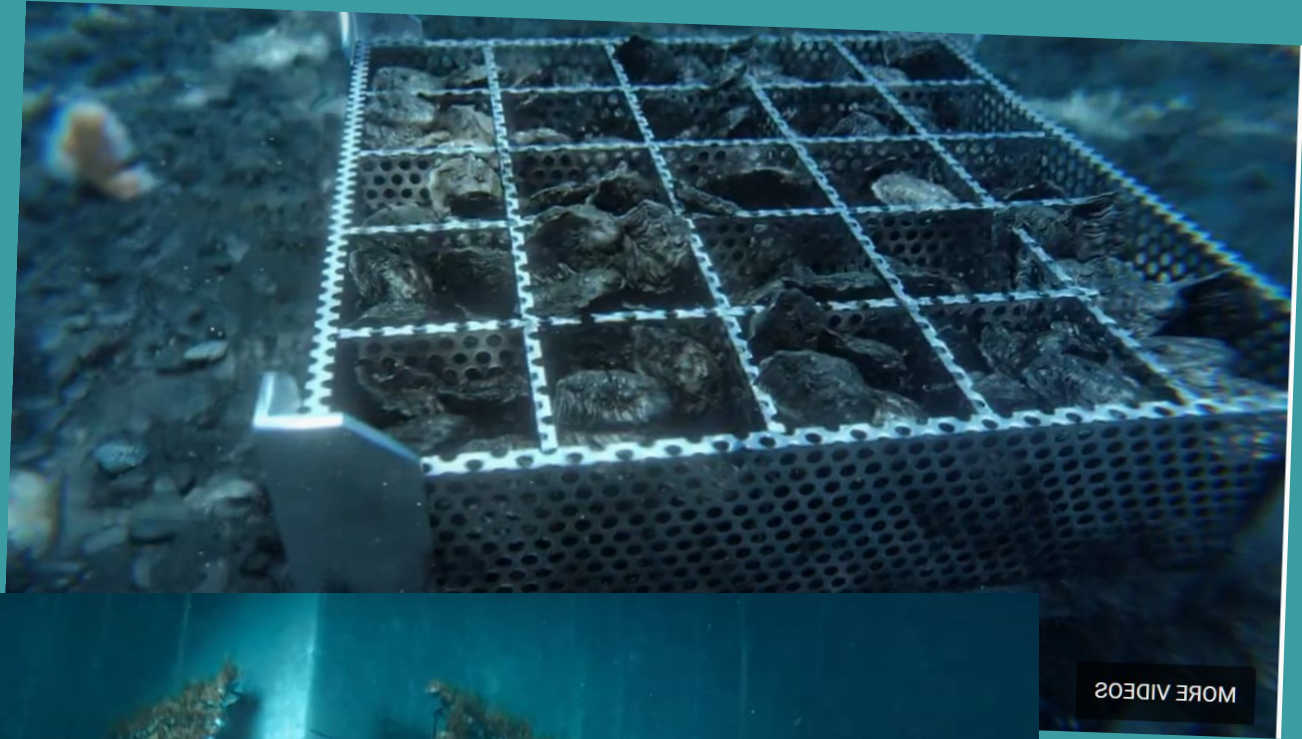
Plot	Lot Name	Abbreviation	Surface Area	Power
Lot 1	Princess Elisabeth I	PE I	46 km <sup>2</sup>	700 MW
Lot 2	Princess Elisabeth II	PE II	103.3 km <sup>2</sup>	1225-1400 MW
Lot 3	Princess Elisabeth III	PE III	106.8 km <sup>2</sup>	1225-1400 MW

- Tender published for the first lot 700 MW
- Princess Elisabeth island
  - Construction by TM-Edison (Deme-Jan De Nul), construction of 'caissons' started
  - Nature Inclusive design



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structure relief panels will be attached  
to the lower parts of the walls

# Onshore Grid effects

Building new 380kV-lines creates enormous challenges related to permitting

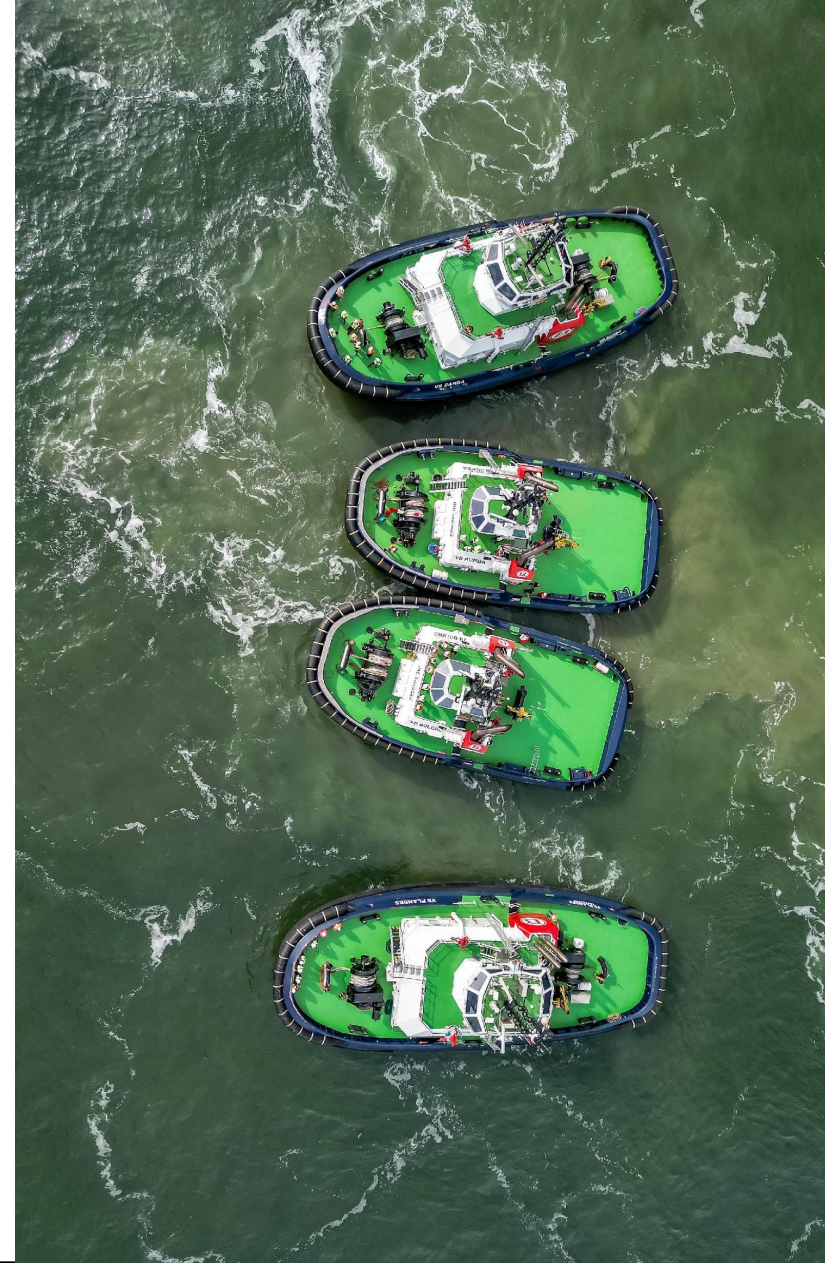






**North Sea Cooperation Summit, Oostende**

1. Financing & de-risking mechanisms
  2. Non-price criteria
  3. Resilience & Security
  4. Offshore Network Development Plans
  5. Supply chain & Industry leadership
- &
- Exchange with other regional fora
  - Joint meetings within NSEC – Support groups
  - Way forward to North Sea Summit III

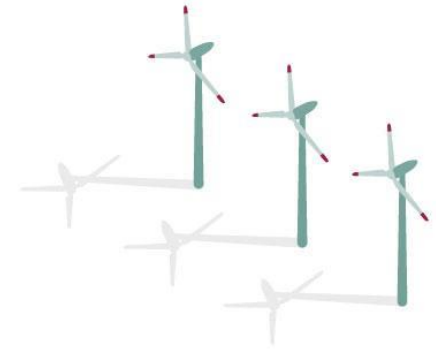


# Hydrogen



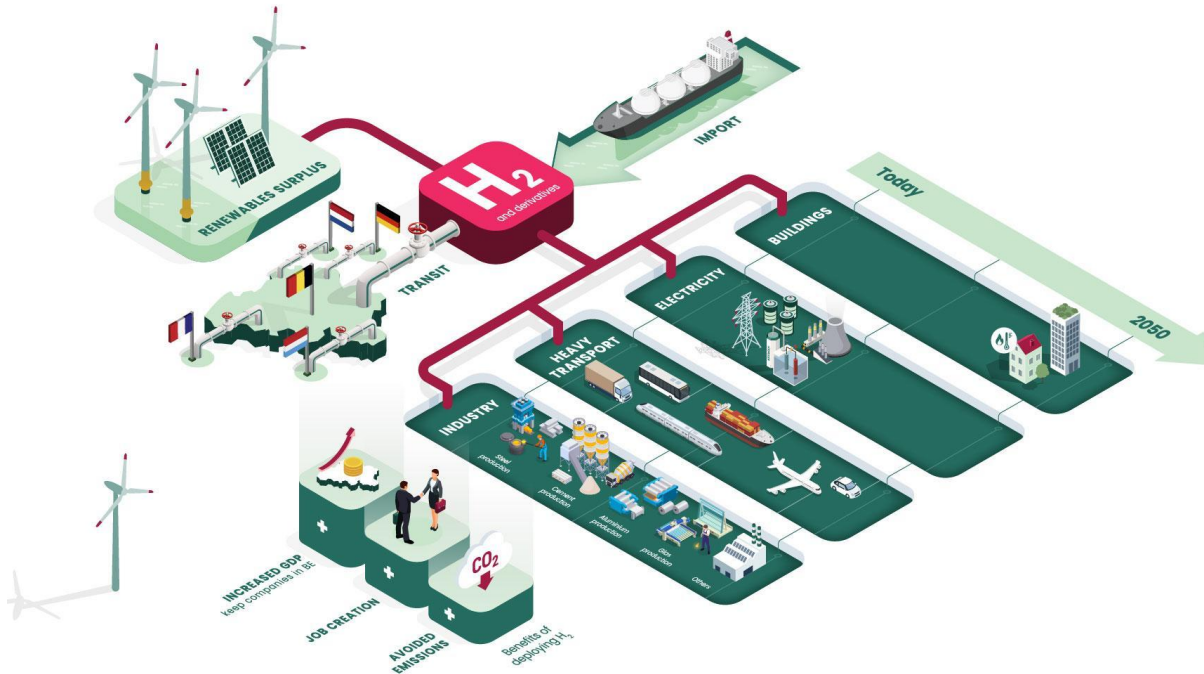
# Federal H<sub>2</sub> strategy

October 2021 (updated october 2022)



## 4 pillars

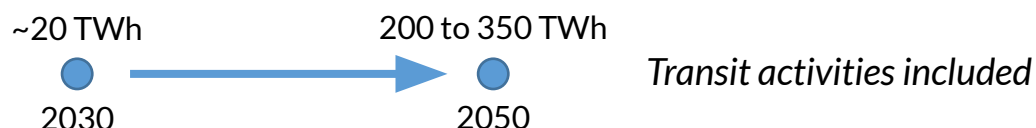
1. Positioning Belgium as an import and transit hub in Europe for renewable molecules
2. Becoming a leader in hydrogen technologies
3. Establishing a robust hydrogen market
4. Investing in cooperation as a key success factor



□ *Minister Bihet: Update Hydrogen strategy to to ensure competitive development in this crucial sector*

# Pillar 1 – Import and transit hub for renewable molecules

Estimated import needs for national use (lower bound, bunkering fuels included)



## 3 main import routes identified

### North Sea route (pipeline)

- Close to Belgium
- Complementarity of offshore H<sub>2</sub> and electricity networks
- Collaboration is increased with North Sea countries to best harness this energy

### Southern route (pipeline)

- Great potential from Southern Europe and North Africa
- H<sub>2</sub> networks to be developed, partly from repurposed natural gas networks
- This route will most probably materialize after 2035

### Shipping route

- From any port in the world from renewable-rich regions
- Expected to become the most competitive solution for H<sub>2</sub>-derivatives
- Ability to crack H<sub>2</sub>-derivatives into H<sub>2</sub>-molecules improves security of supply

## Hydrogen gateway to Europe

The federal government invests in transport infrastructure (H<sub>2</sub> backbone, H<sub>2</sub> import infrastructure) to position Belgium as an import and transit hub for renewable molecules



# Ongoing projects

- **Building backbone**

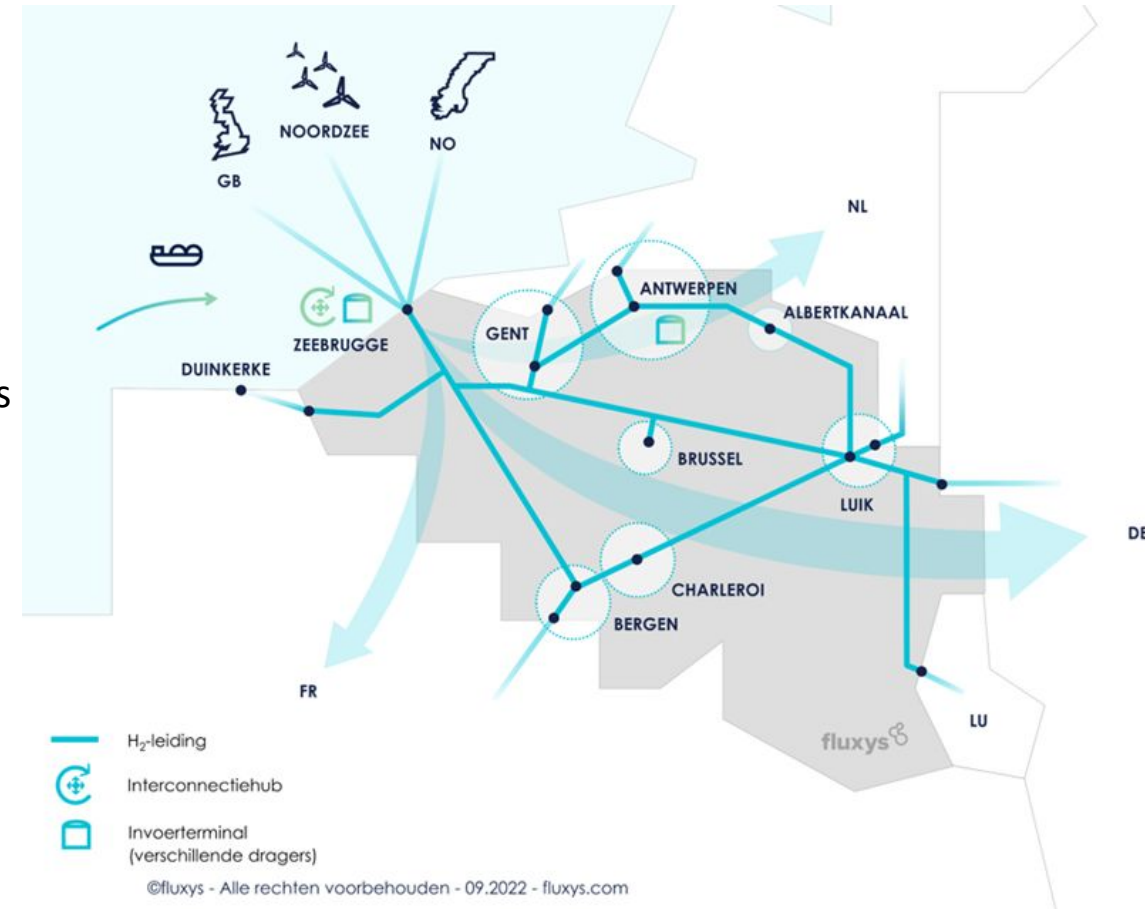
(government support up to 50%)

- Phase 1:
  - Connecting main Sea-Ports by 2026
  - Allowing development import infrastructure
  - Reduced scope due to slowing down market
- Phase 2:
  - Connecting adjacent markets based on market needs
  - Reinforcing grid through repurposing

- **Other** (mostly privately funded)

- 3 large ammonia terminal initiatives in FEED Phase (incl cracking of ammonia and connection to backbone)
- Tender for H2 use in refineries (driven by RED)
- Small local production: limited potential, focus on developing technology (regional support)

□ See interactive map (next slide)





# Pillar 2 – Expanding Belgian leadership in H<sub>2</sub> technologies

Source: WaterstofNet & Cluster TWEED



# Hydrogen Projects in Belgium



<https://www.belgianhydrogencouncil.be/interactive-map-for-hydrogen-activities/>



# Belgium and Brasil

- Many industrial actors present in Brasil : Ports, Ingeneering offices, Dredging companies, Infrastructure companies...
- Open to sharing experience

Wish to go deeper?

Please contact us

Valentine Mangez, Consul-geral da Belgica em São Paulo – [saopaulo@diplobel.fed.be](mailto:saopaulo@diplobel.fed.be)

Kátia Pinheiro – Consulado Honorário da Bélgica RS - [consuladohonorariobelgicars@juchem.com.br](mailto:consuladohonorariobelgicars@juchem.com.br)

Alessandro Pavan – Flanders Investment and Trade - [Alessandro.Pavan@fitagency.com](mailto:Alessandro.Pavan@fitagency.com)



A photograph of an offshore wind farm at sunset. Numerous wind turbines are silhouetted against a vibrant sky with orange, yellow, and pink hues. The turbines are distributed across the frame, with one particularly large one in the center foreground. The water in the foreground is calm, reflecting the light from the sky.

**OBRIGADA**

