



# CCS BALTIC CONSORTIUM

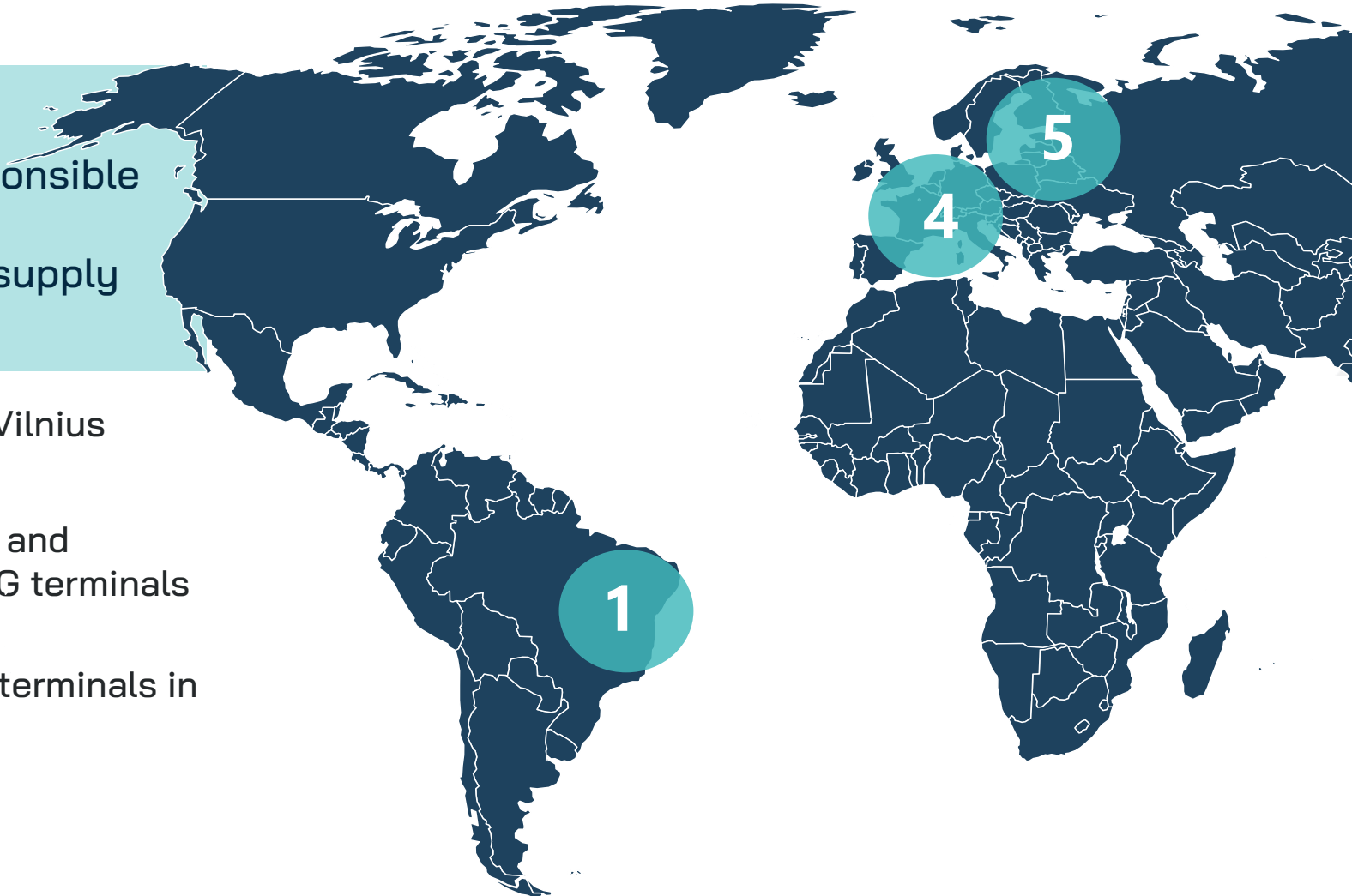
CO2 value chain in Baltics (PCI 6<sup>th</sup>)

Baltic Carbon Forum  
Vilnius  
2024-10-04

# KN ENERGIES – INTERNATIONAL ENERGY TERMINAL OPERATOR SINCE 1959

KN Energies is a company of strategic importance for Lithuania since it is responsible for keeping state fuel reserves (EU requirement) and ensuring natural gas supply security to the Baltic region

- State-controlled company listed on Nasdaq Vilnius Stock Exchange.
- Core business: energy terminal development and operation with a strategic focus on FSRU LNG terminals and Carbon Capture and Storage.
- Current scope of operations: 5 liquid energy terminals in Lithuania; 4 in Germany, 1 in Brazil.





# Foundations for the CCS Value Chain

# WHY?

**Legislation:** The current legislation on geological depths, which prohibits the injection of CO<sub>2</sub> in Lithuania and neighboring countries (Poland, Latvia).

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**Storage Capacity:** Explored and verified geological storage structures having a low storage capacities, up to several mln tonnes. Fill in up to one year.

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**Public Perception:** Public resistance and concern about the safety and long-term impacts of onshore storage sites.

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**Cost:** Additional significant investment is needed for geological structure suitability investigations.

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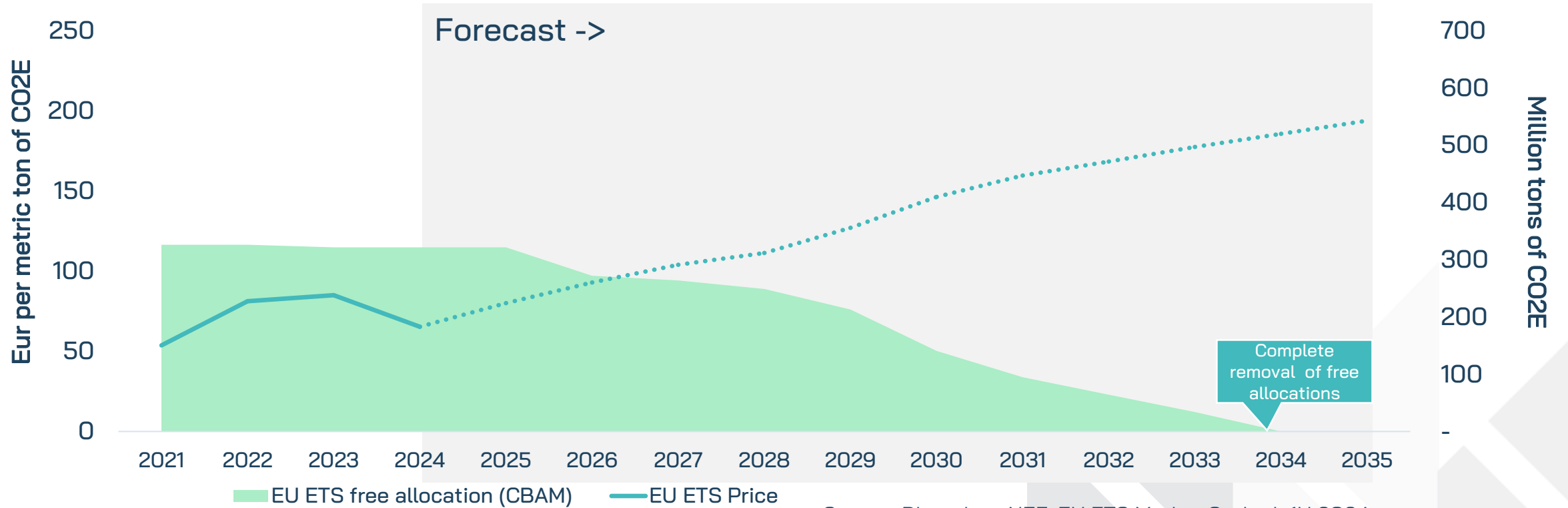
**State:** Ultimate responsibility of sequestered CO<sub>2</sub> on the member state.

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**Infrastructure:** CCS export/ import hub will open door for biogenic (Green) CO<sub>2</sub> imports for green fuels production in Lithuania and the region.

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## Historical and forecast EU emissions allowance price and free allocations

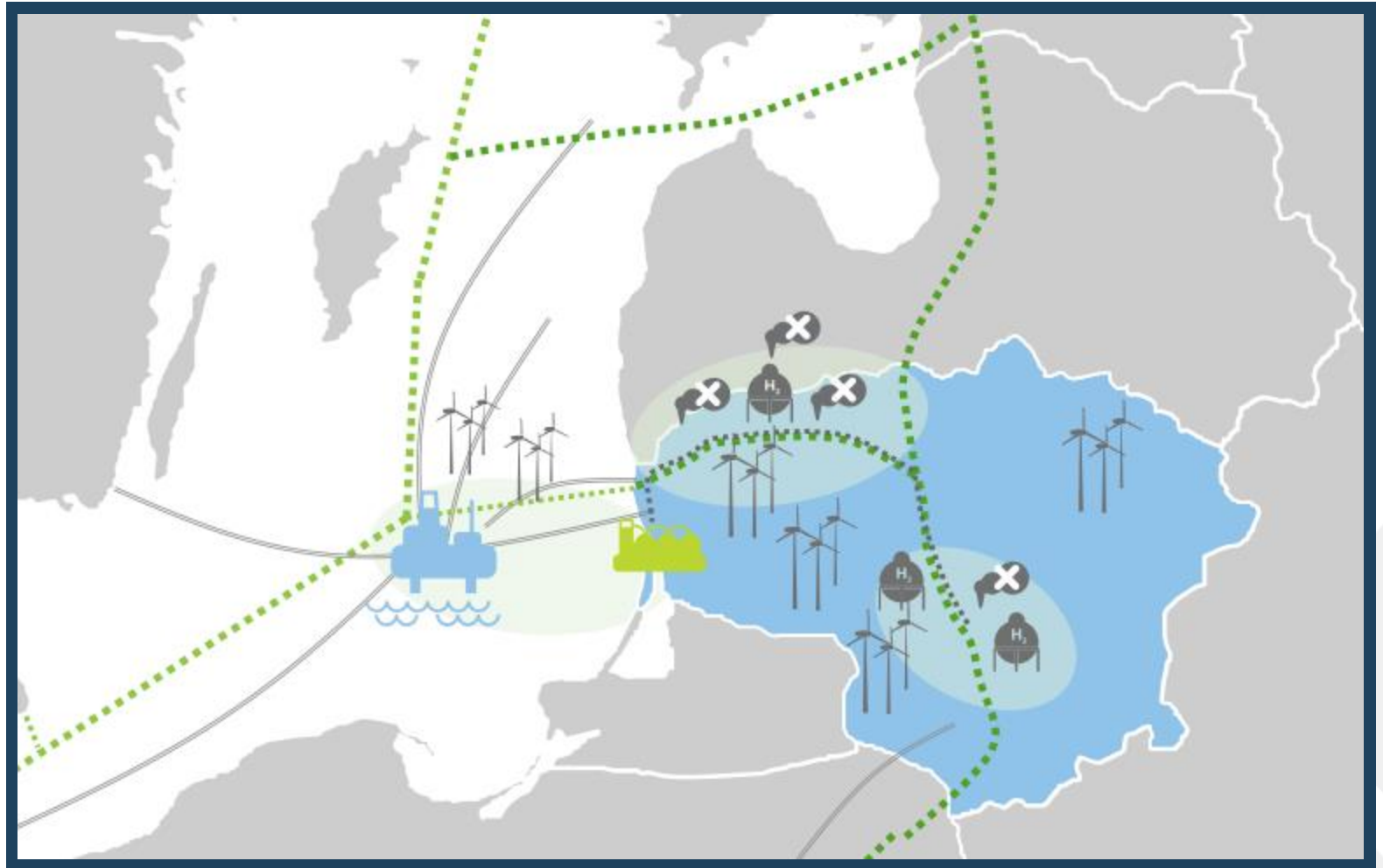


Source: BloombergNEF, EU ETS Market Outlook 1H 2024

Free allowances under the EU ETS will be gradually phased out from 2026 to 2034 for sectors (including cement) covered by CBAM.

# “NEIS”

The development of the CCS Baltic Consortium is fully aligned with the objectives outlined in the National Energy Independence Strategy (“NEIS”), published on June 27th, 2024. This alignment ensures that the project supports national priorities for reducing carbon emissions, enhancing energy security, and transitioning to a more sustainable, decarbonized energy system.



Source: NEIS public presentation



# CCS Baltic Consortium

## PCI 6<sup>th</sup>

# PROJECT PARTNERS



KN ENERGIES AB – project coordinator.  
Liquid energy terminal owner, operator and developer.



Larvik Shipping AS – Norwegian company, operating lCO2 carrier fleet from 1988.  
Shipping liquid CO2 for clients in Europe



Mitsui O.S.K. Lines Ltd. – Japanese multi-modal shipping company.  
One of the largest fleet owners globally. Over 800 ships in ops.



SCHWENK Latvija SIA – cement plant in Broceni, Latvia. Largest CO2 emitter in the country. Part of German group - SCHWENK.



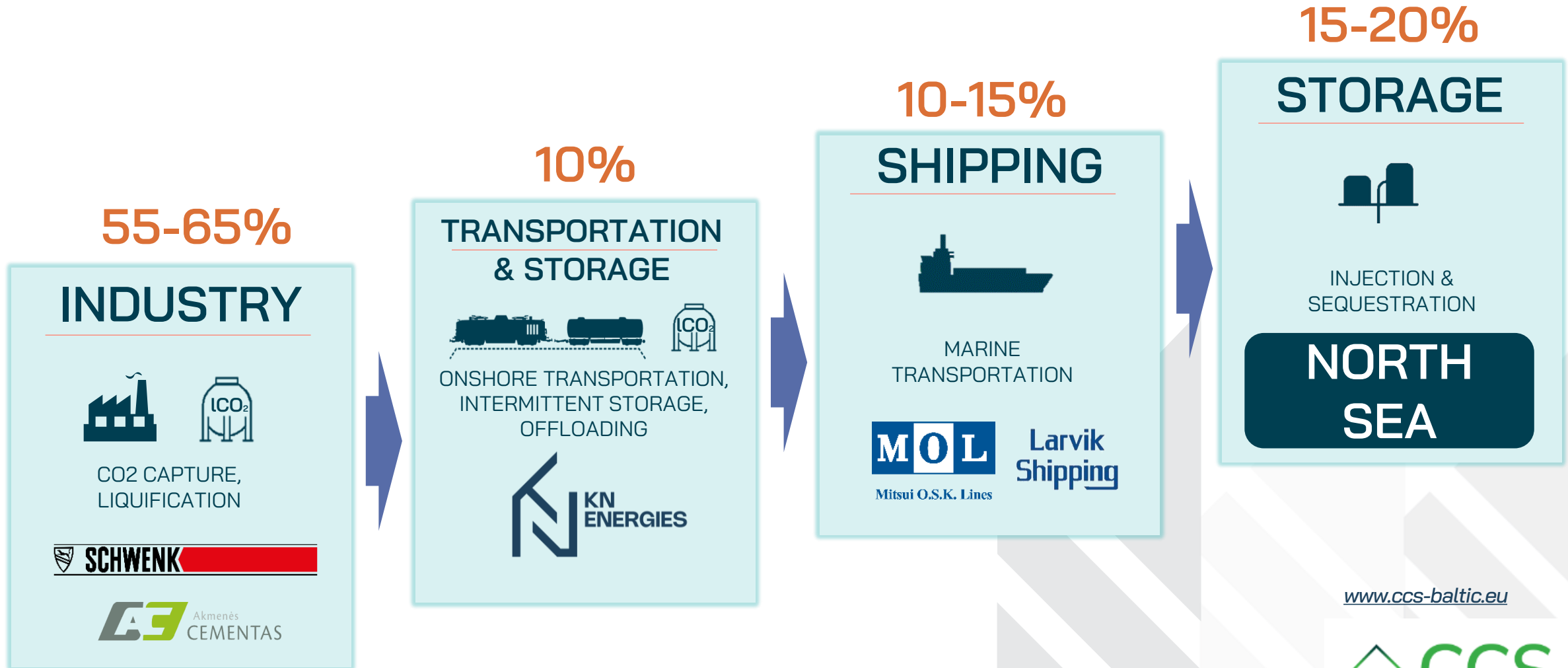
Akmenės cementas AB - cement plant in Naujoji Akmenė, Lithuania. TOP3 CO2 emitter in the country. Part of German group - SCHWENK.

[www.ccs-baltic.eu](http://www.ccs-baltic.eu)





# CO2 VALUE CHAIN



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# CO2 POTENTIAL

## 2030

Earliest achievable COD

SCHWENK LV	800 kt/y
Others	200kt/y

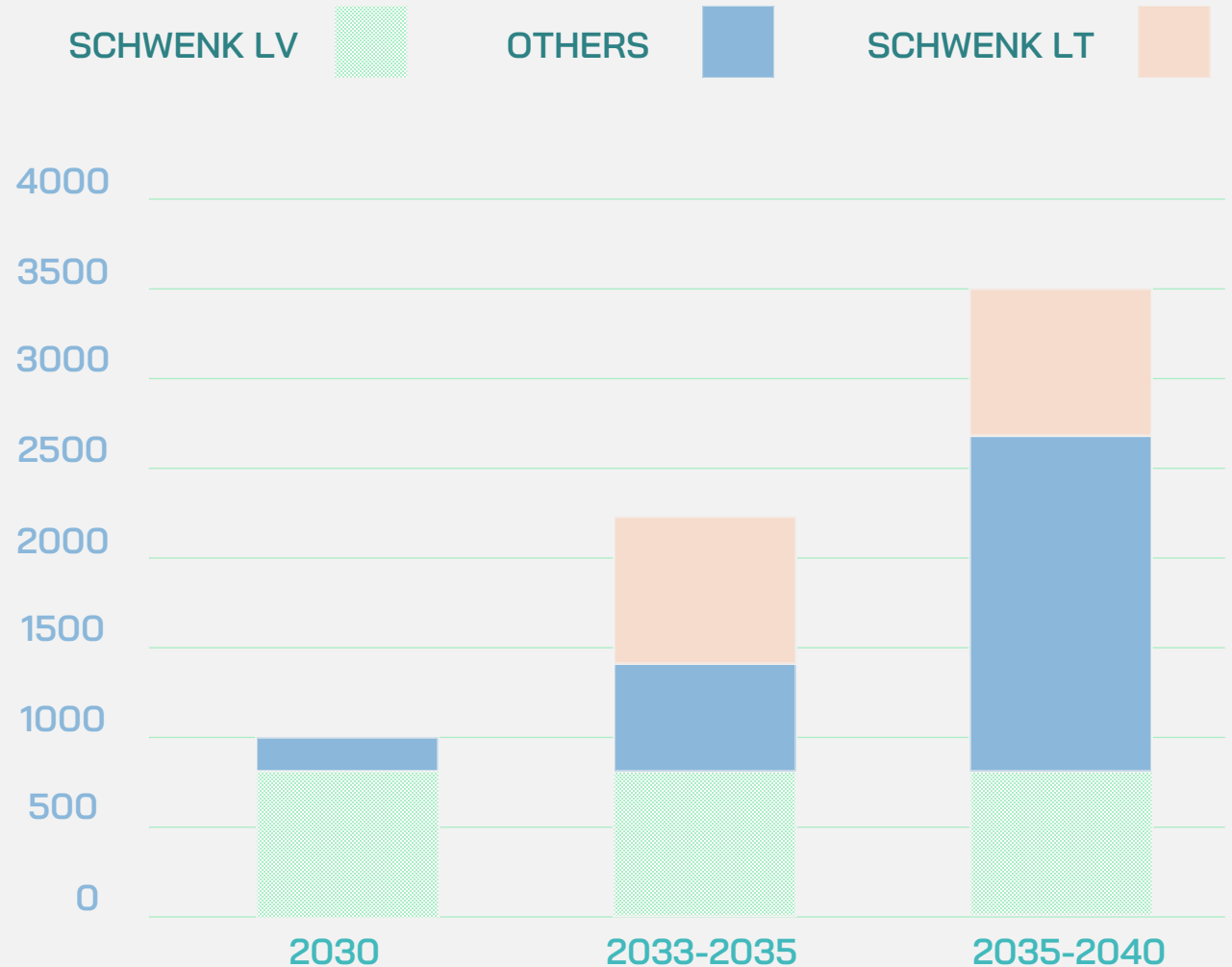
## 2033-2035

Others	600 kt/y
SCHWENK LT	800 kt/y
SCHWENK LV	800 kt/y

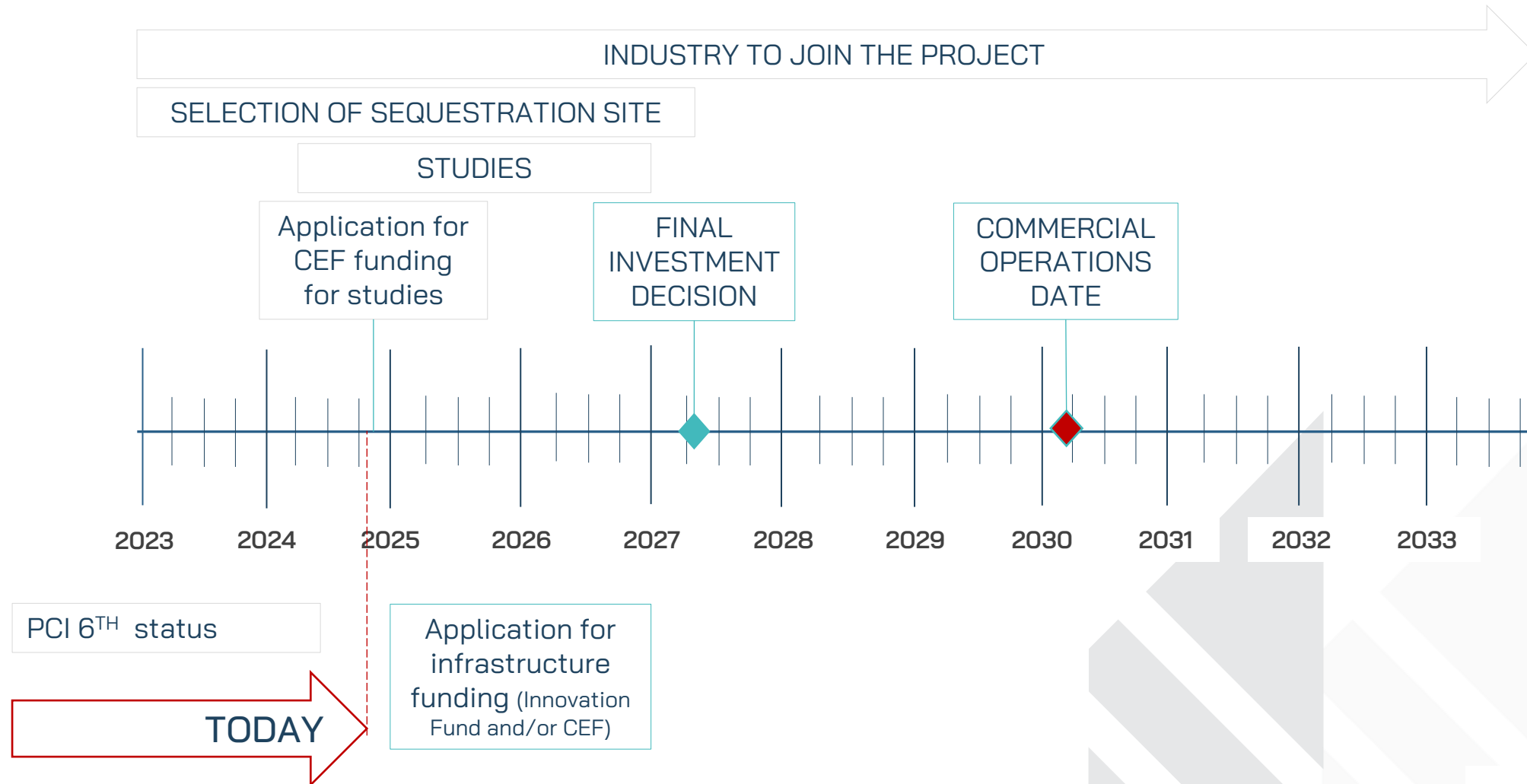
## 2035 - 2040

Others	1900 kt/y
SCHWENK LT	800 kt/y
SCHWENK LV	800k kt/y

POTENTIAL CO2 VOLUMES/ TIME, KTPA



# PROJECT TIMELINE



# SUMMARY



**KN ENERGIES and Consortium partners FOCUS to:**

**1. Enable DECARBONIZATION OF INDUSTRY**

Supporting hard-to-abate sectors in reducing CO2 emissions through innovative capture and storage solutions.

**2. Develop OPEN ACCESS INFRASTRUCTURE to extend value chain to LT & LV industries**

Seamless access to CO2 transport and storage with no exceptions or limitations.

**3. Establish CROSS-BORDER CO2 TRANSPORTATION regulatory environment**

Enabling cross-border transportation of CO2 to maximize decarbonization opportunities.

**4. Provide COST-EFFECTIVE SOLUTION to hard to abate Baltic industries**

Competitive costs in comparison to the EU Emissions Trading System, providing economic advantages for industries.



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