

Experience from the pilot project: pre-certification of RFNBO Methanol



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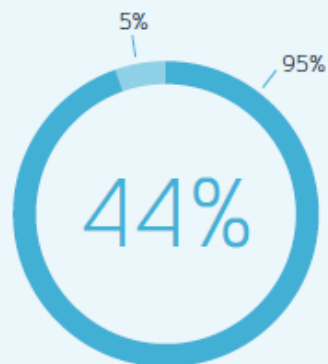
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Maersk's Emissions



SCOPE 1: OWN OPERATIONS

Direct emissions coming from our financially controlled operations.

95% of our scope 1 emissions come from our ocean operations (fuel use). (2021: 94%)

34,150 (1,000 tonnes CO₂e) (2021: 36,596)

■ Fuel oil
■ Other operations

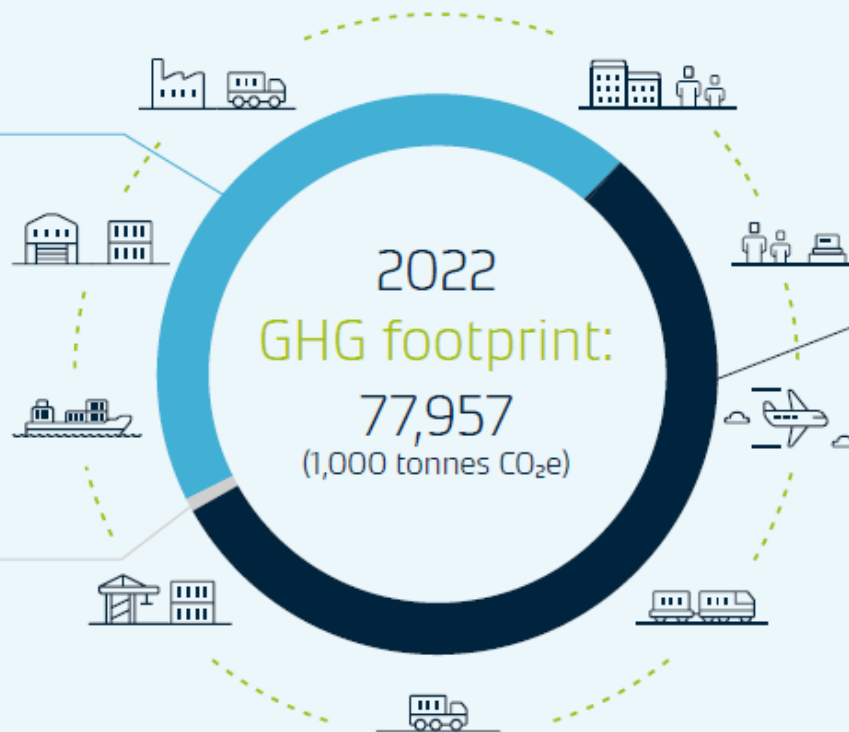
0.5%

SCOPE 2: PURCHASED ELECTRICITY (location-based)

Emissions from the generation of purchased electricity.

65% of our scope 2 emissions come from our terminals. (2021: 65%)

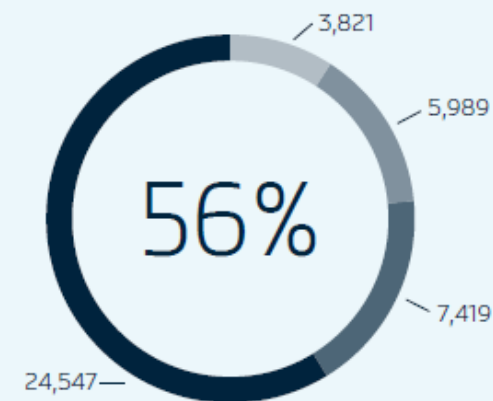
356 (tonnes CO₂e) (2021: 351)



SCOPE 3: VALUE CHAIN

Emissions created in the value chain as a result of Maersk's business activities, including emissions from cargo transported under vessel sharing agreements and sourcing of marine fuels to third-party customers.

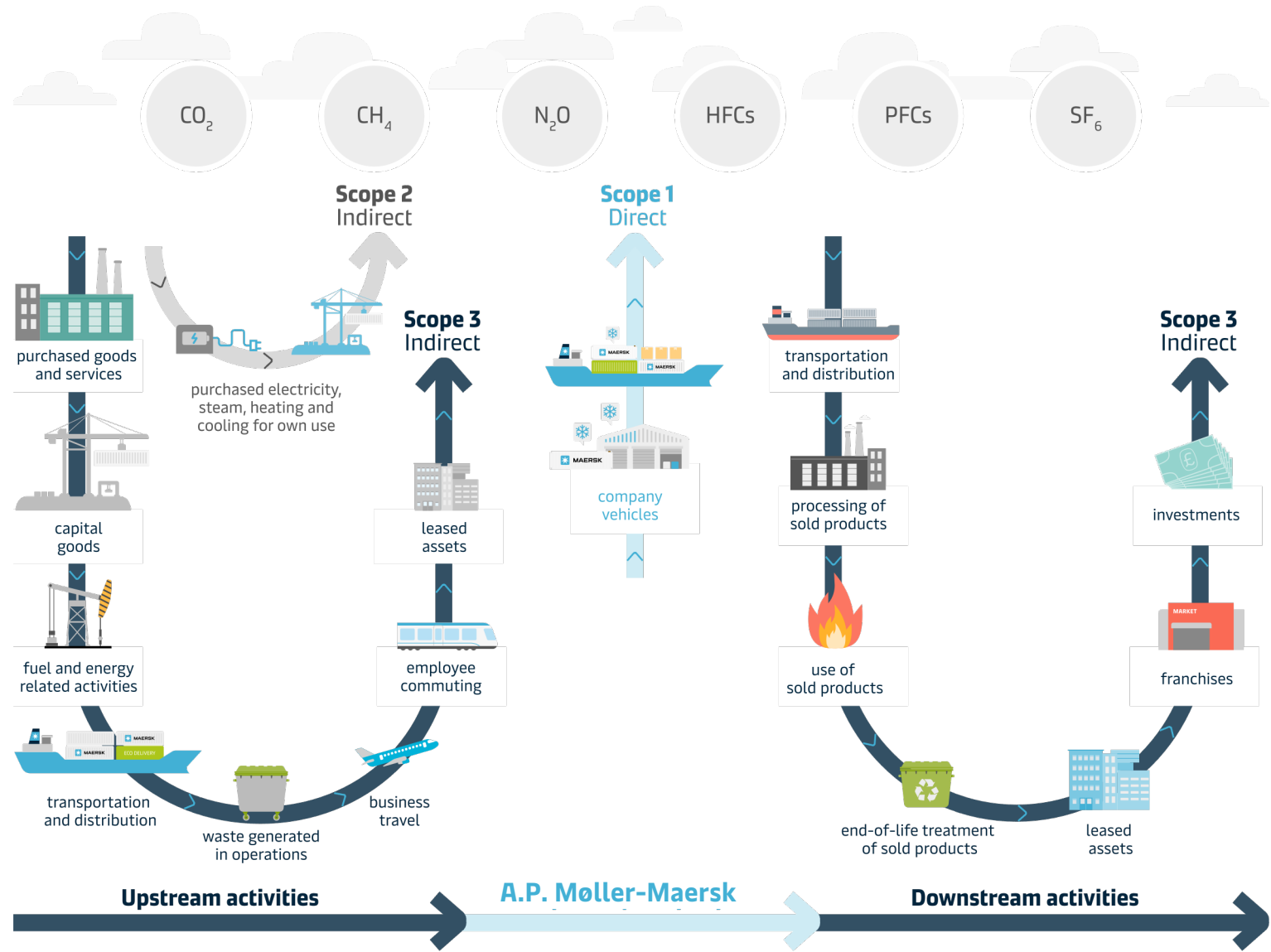
43,451 (1,000 tonnes CO₂e) (2021: 39,436)
The main activities driving our value chain emissions are:



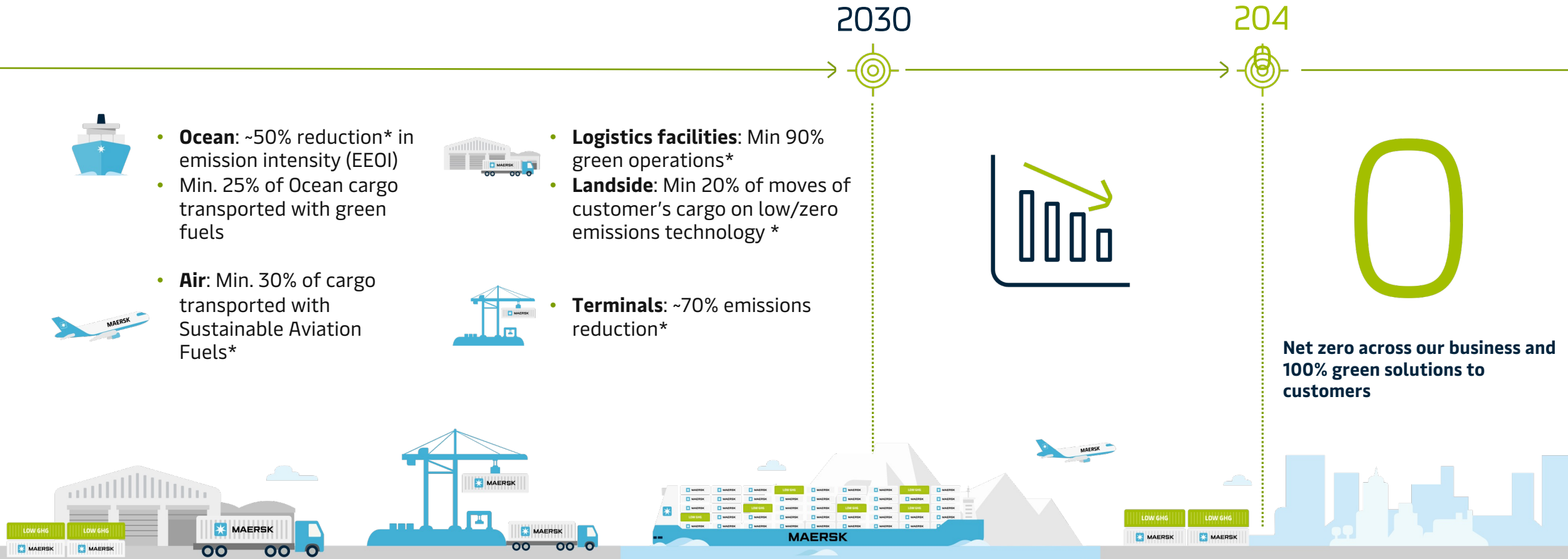
- Upstream transportation and distribution: 24,547 (1,000 tonnes CO₂e) (2021: 16,275)
- Use of sold product (incl. sale of marine fuels and reefer containers to 3rd parties): 7,419 (1,000 tonnes CO₂e) (2021: 10,285)
- Fuel and energy related activities: 5,989 (1,000 tonnes CO₂e) (2021: 6,468)
- Purchased goods and services: 3,821 (1,000 tonnes CO₂e) (2021: 3,158)

Accounting is done according to the GHG Protocol which is a voluntary scheme for corporations. The GHG Protocol is more or less aligned to the Science Base Targets Initiative

GHG emissions scope



Maersk targets net zero greenhouse gas emissions across our entire business operations by 2040



4 • Targets will be revised following the submission to the Science-based Target Initiative (SBTi) and will also cover the upstream emissions related to producing the fuels

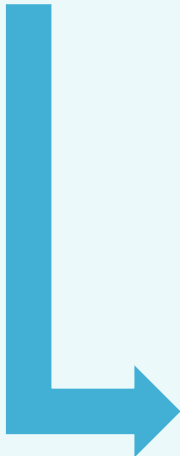
How to get there?

Roadmap to deliver net zero by 2040

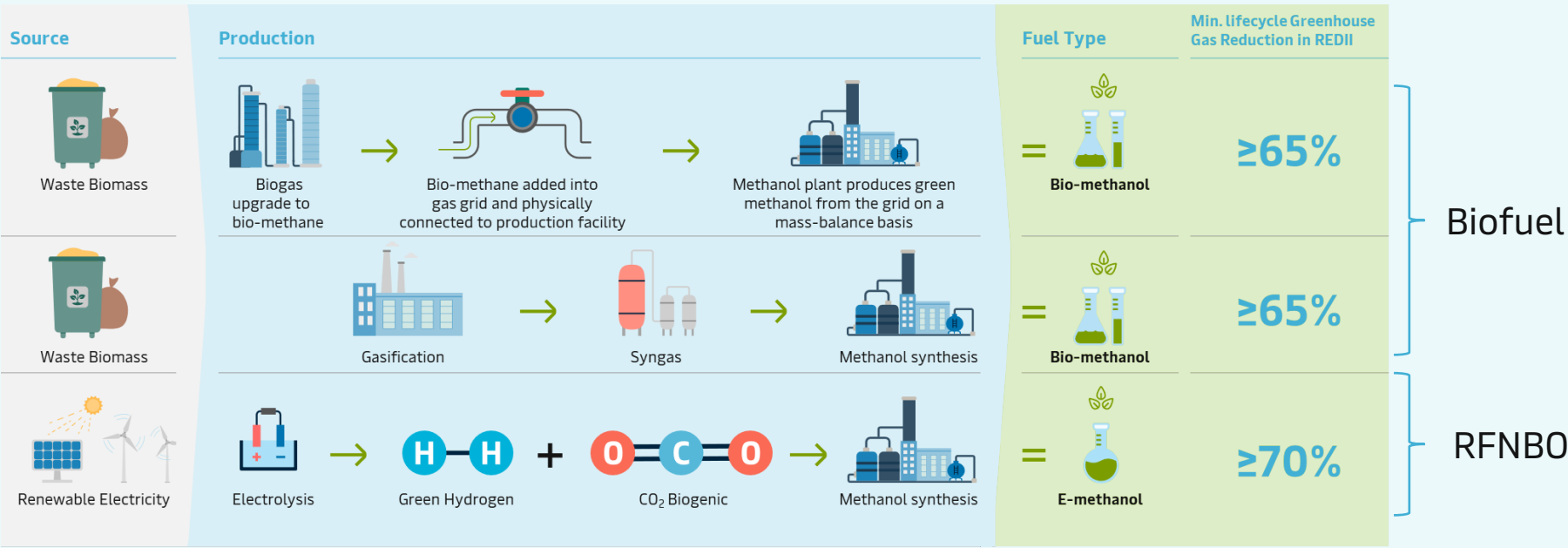


How to get there?

Roadmap to deliver net zero by 2040

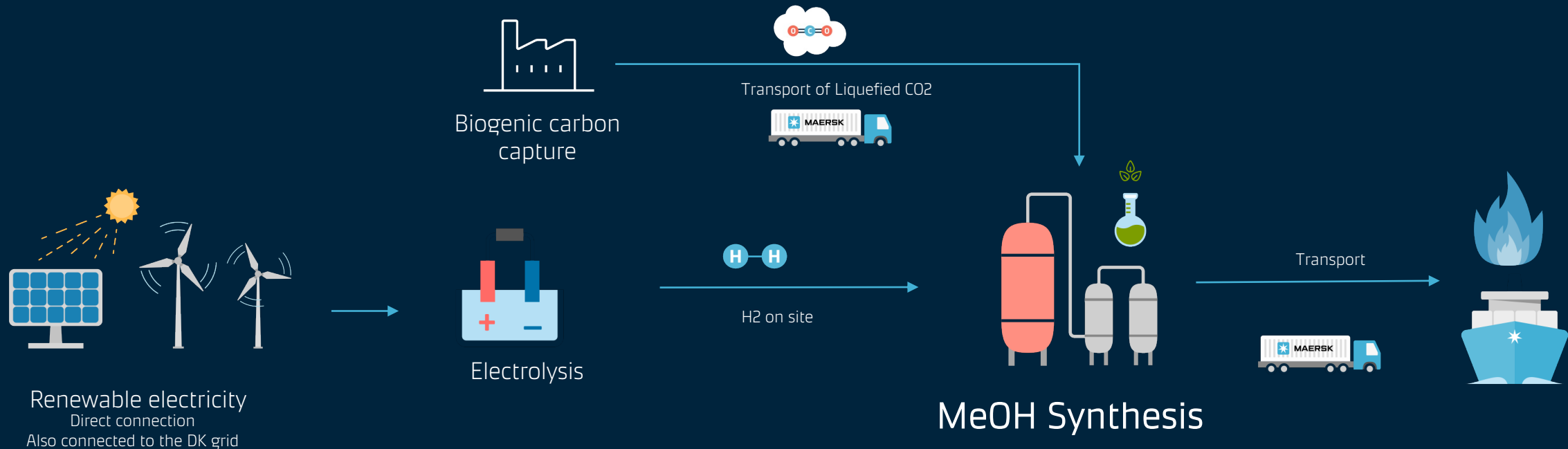


Working diligently to source **certified** methanol



RFNBO pre-certification pilot

- E-methanol plant in Kassø, Denmark
- Power from solar farm and the grid
- MeOH for three different sectors
- Construction initiated and on track



RFNBO requirements

RFNBO by Delegated Acts:

- Sustainability requirements determine whether electricity is renewable:

1. Renewability
2. Additionality
3. Temporal correlation
4. Geographical correlation

- GHG emissions reduction


Both need to be fulfilled



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- GHG emissions reduction



Temporal correlation between the electricity generation at the renewable electricity unit (contracted by PPA) and the consumption for RFNBO production:

- Until the end of 2029 **monthly correlation**
- From 2030 **hourly correlation**.

Both need to be fulfilled

Challenges with temporal correlations

- Monthly (until 2029) vs hourly (from 2030):
 - What is the rationale behind monthly and hourly correlation?
 - Power from solar farms, but how to produce RFNBOs overnight?
 - This is a big challenge and makes projects much more expensive
 - Temporal correlation might not constitute a pivotal aspect for achieving long-term environmental goal(s)
- Three fuel users buying from different sectors –different rules.
- Need to find a solution for the plant to keep track of volumes produced with hourly correlation and not.

Conclusions

- Other challenges (e.g., geographical correlation).
- Some challenges are easy to solve.
- But others make the projects very expensive to be able to comply with the rules and different sectors have different rules.
- Still waiting for the certification to be approved, while they are building already the plant.
- From a technical point of view, the temporal correlation clause might be not as relevant as other aspect of the legislation.

Thank you for listening!

