

Welcome to State of Green

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Green Hydrogen, Bioenergy, and Carbon Capture

Agenda

- About State of Green
- Denmark's green transition
- Lessons learned and business gained
- Short introduction to green hydrogen in a Danish context



Public-private partnership

Public

Private

Government

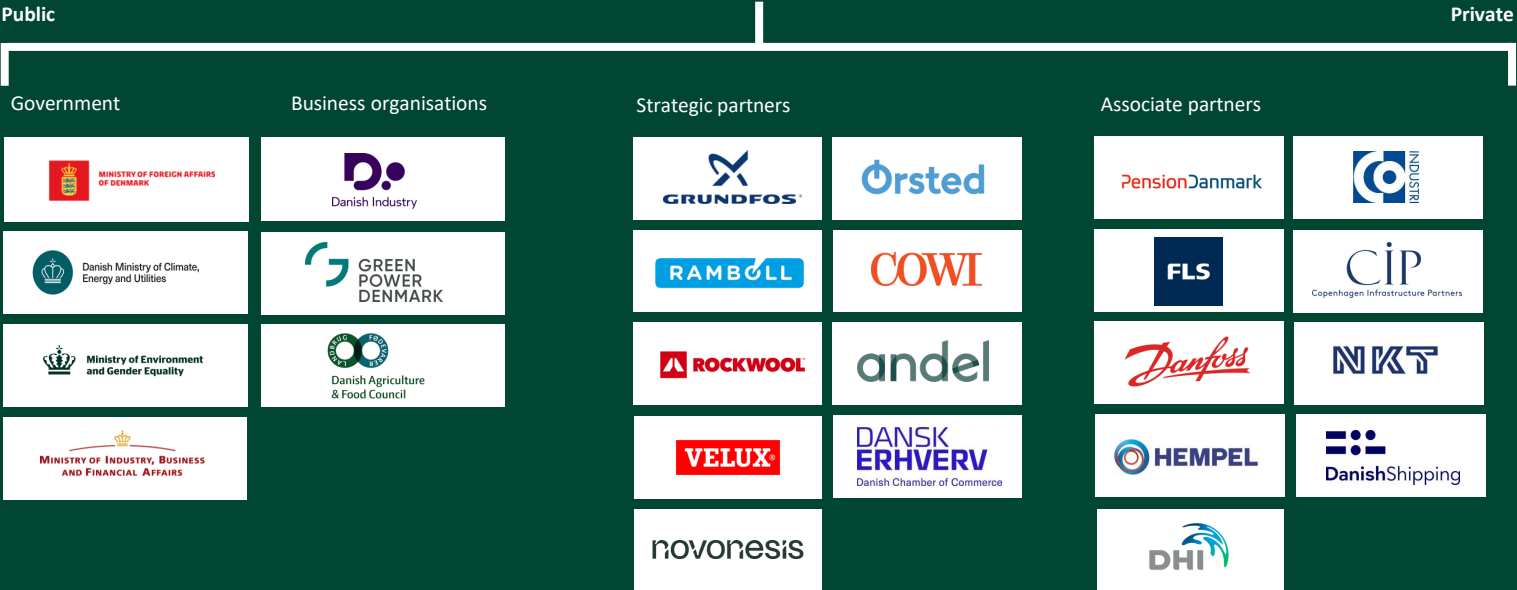
Business organisations

Strategic partners

Associate partners



Public-private partnership



HM King Frederik of
Denmark

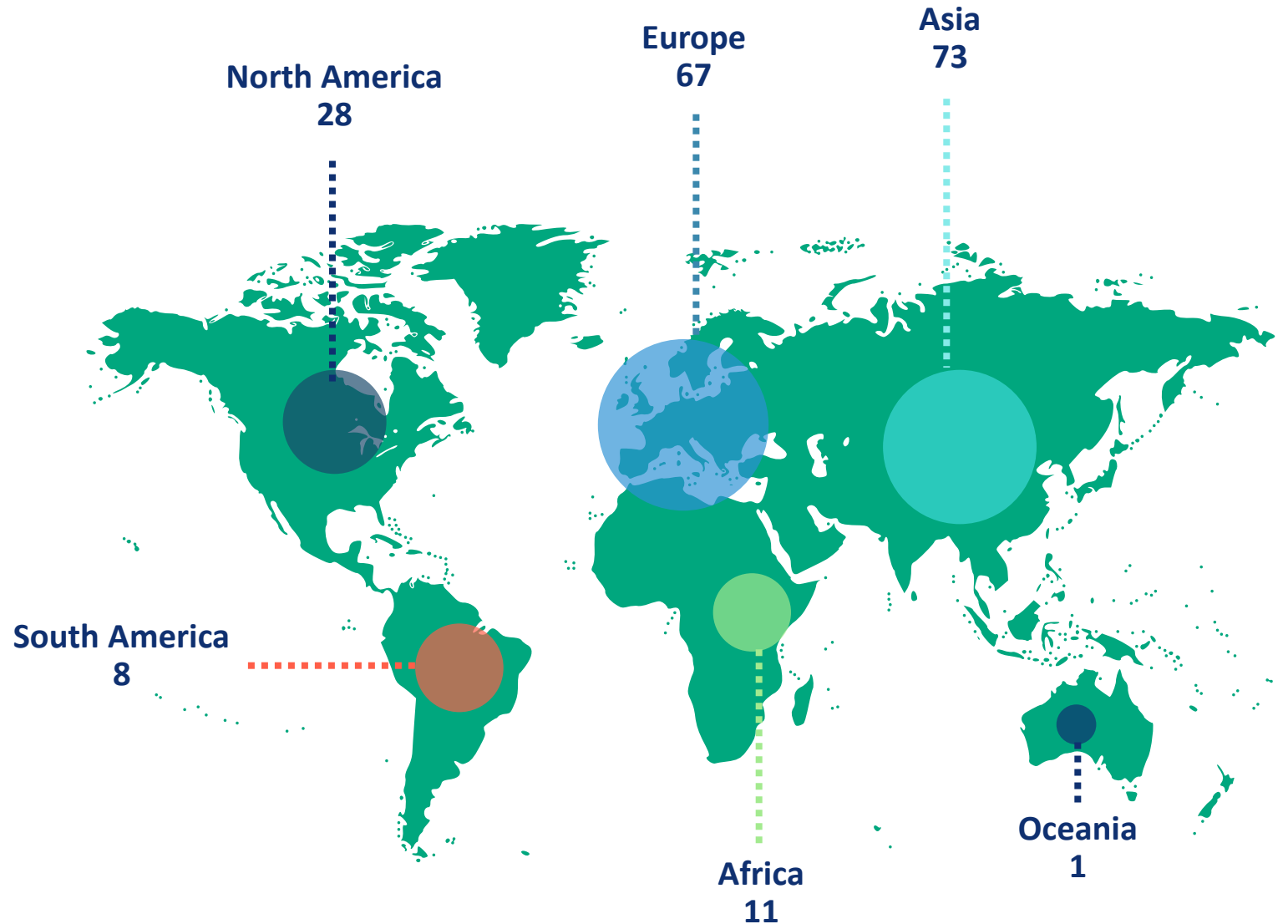
We have specialised our knowledge and solutions



State of Green's role

Every year, State of Green welcomes hundreds of delegations from all over the world at House of Green and engages international decision makers through online and in-person events.

In 2024, State of Green welcomed more than 182 delegations at House of Green.

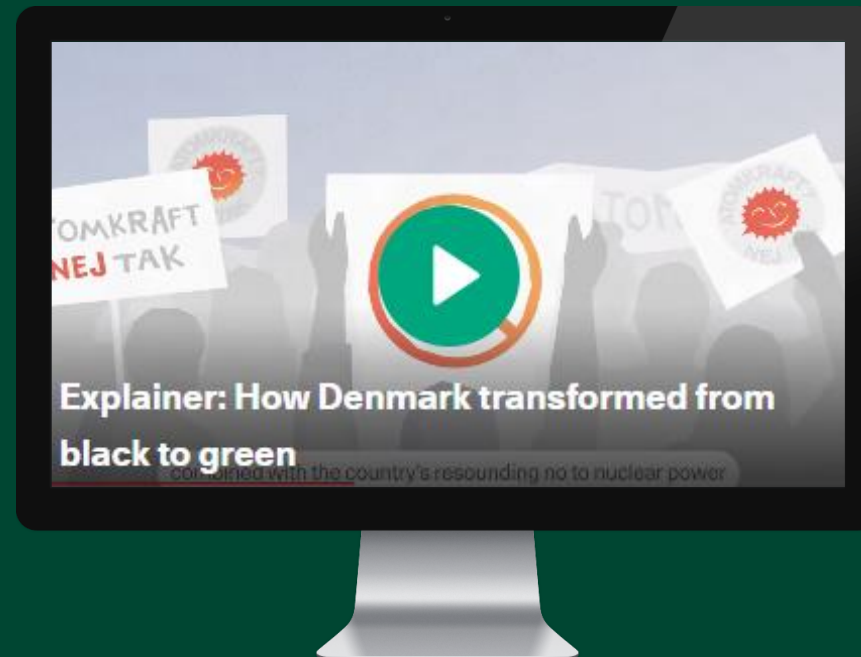


Denmark's green transition

We haven't always been this green

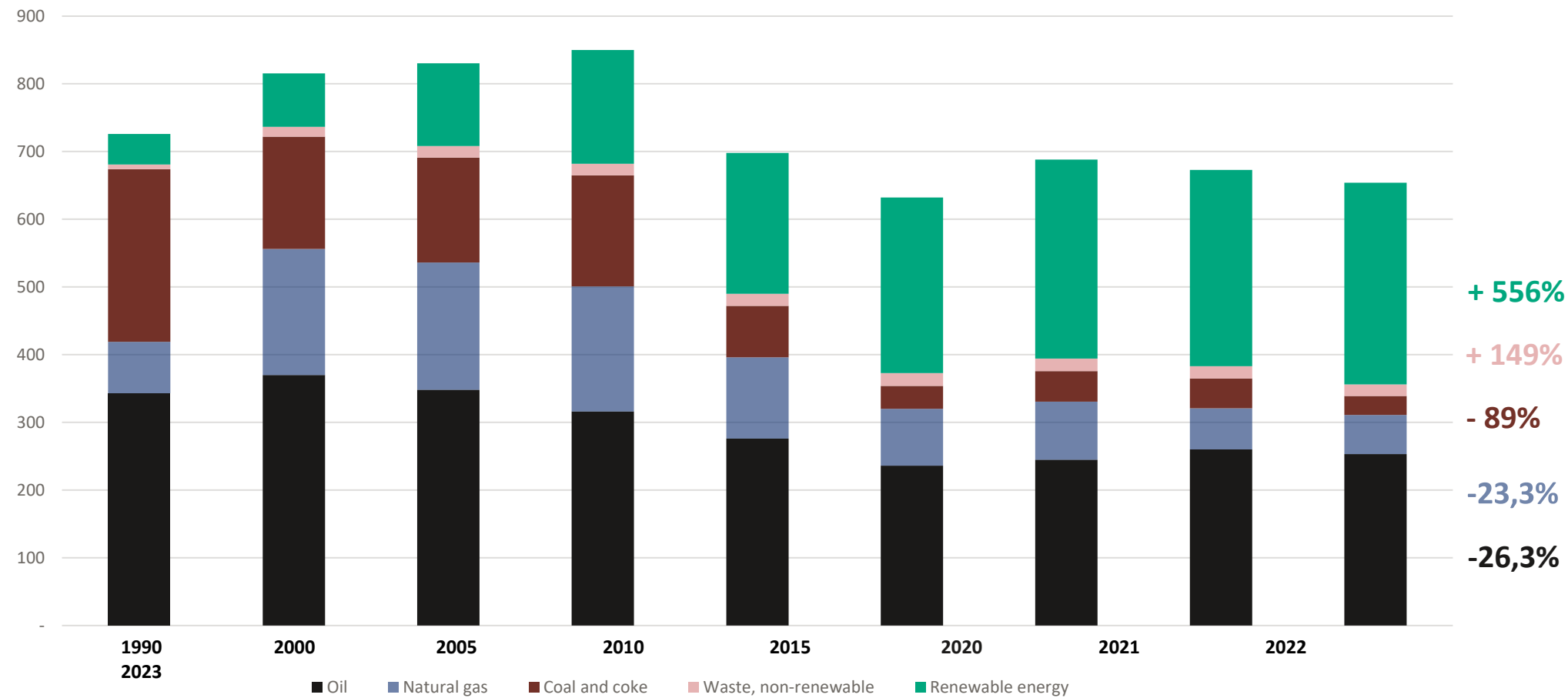
It took 50 years of hard work

Watch the video explaining
how Denmark transformed from black to green



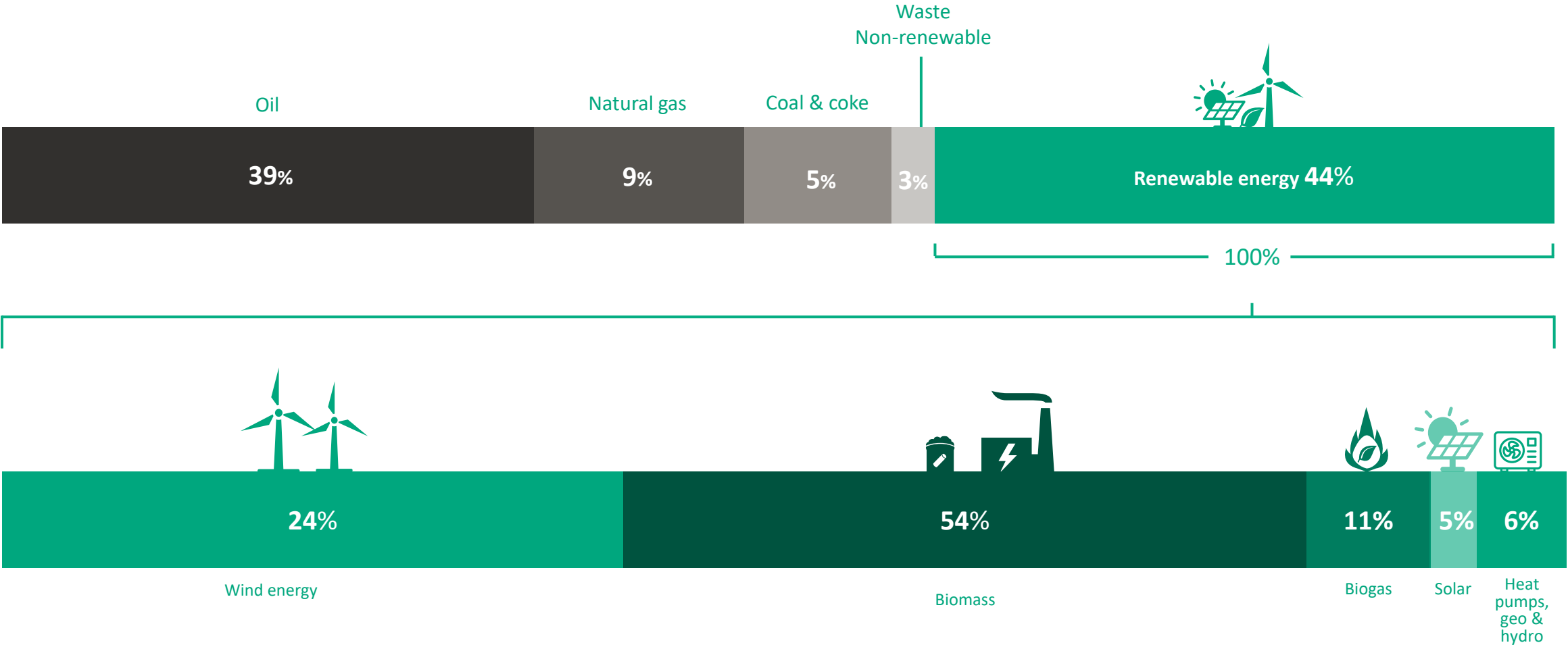
And our energy mix is becoming more green

Gross energy consumption* (PJ)



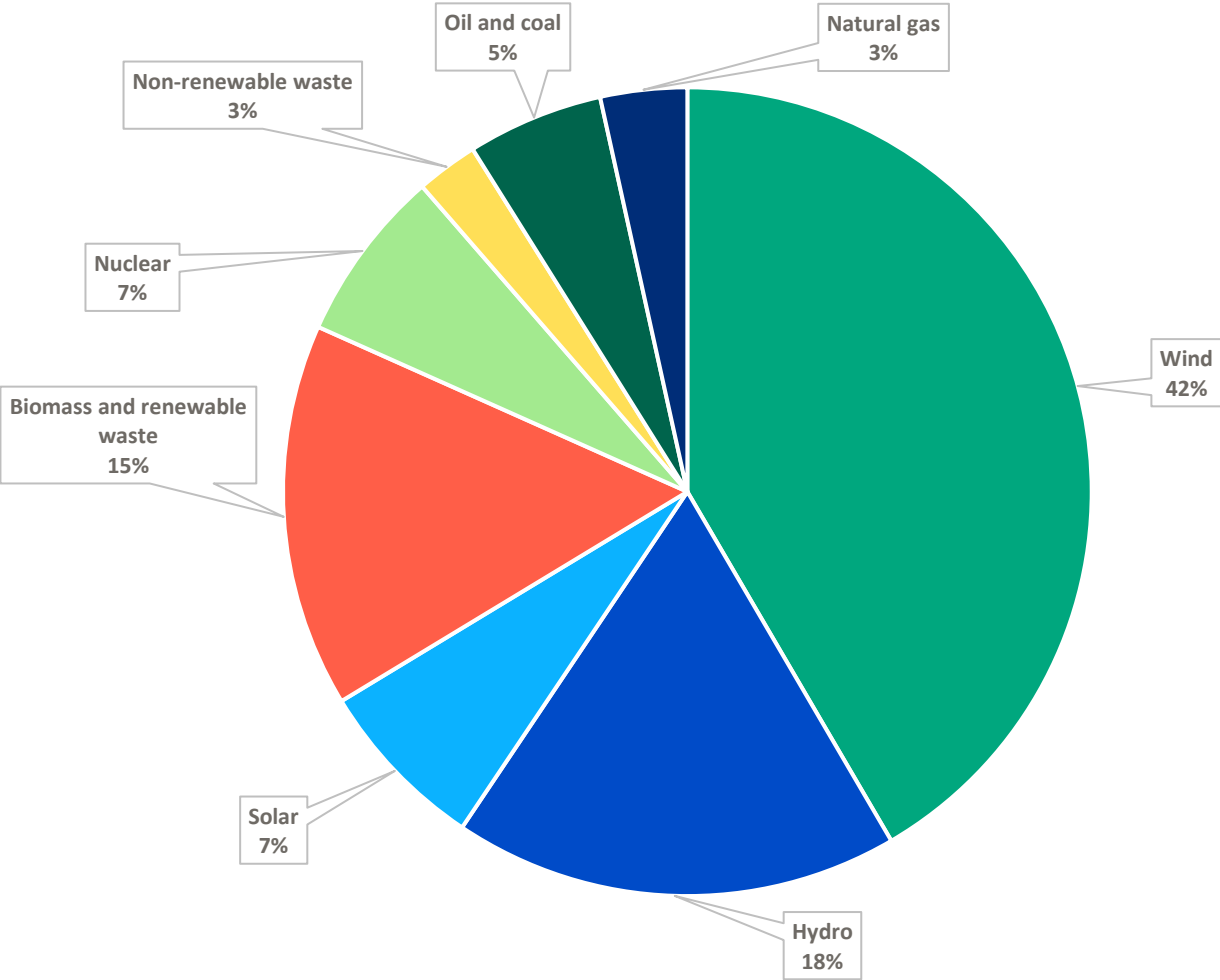
*Adjusted for climate variations and for fuels for net electricity

A look into Denmark's energy mix in 2023 (most recent data)



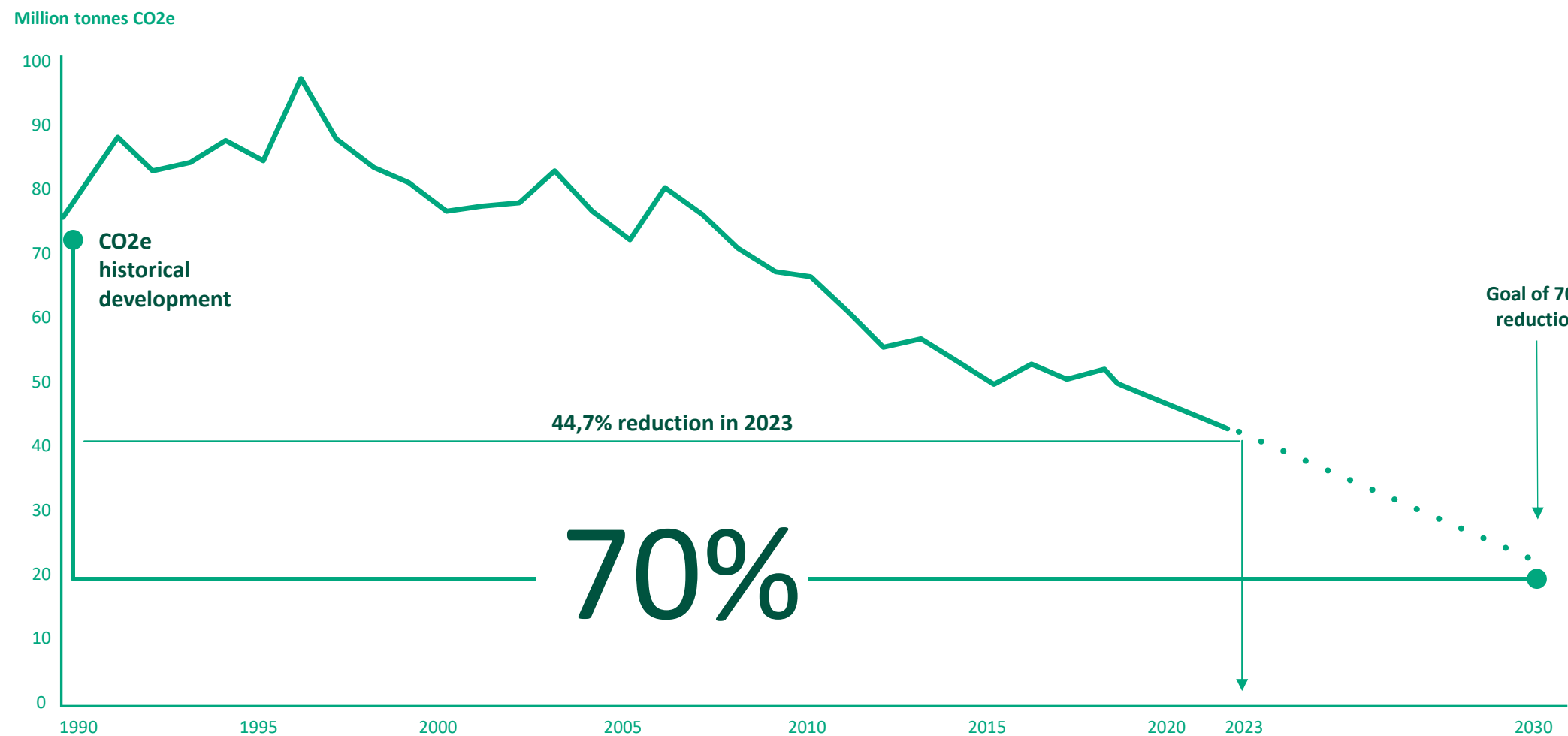
*Total gross energy consumption, projection (2023)

The average kilowatt hour in Denmark (2023)



Source: Danish Energy Agency, National declaration

Denmark has come far already. But we still need to go further.



What have we learnt?



**Denmark is a small country.
We emit 0.1% of the global greenhouse gases**

Denmark

0.1%



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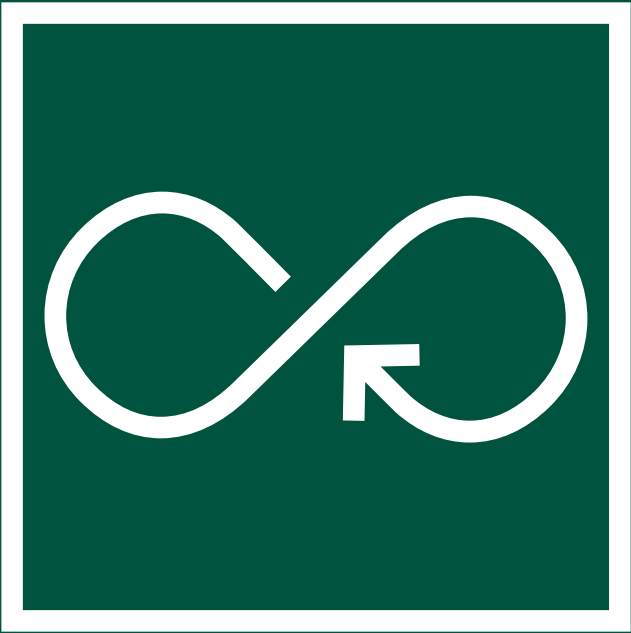
Green transition enablers



1970s



2020s



Green business is good business (2023)

00%

of total Danish exports come from
green technologies alone

+100,000

green jobs

5.5%

of GDP

41 billion

euro in turnover

The challenge

The use of fossil fuels in industry and transport accounts for a third of global greenhouse gas emissions



The solution

Utilise the abundance of natural resources to produce sustainable e-fuels and chemicals



An aerial photograph of a city harbor at dusk. A yellow ferry is moving across the water, leaving a white wake. In the background, a city skyline is visible with various buildings, including a prominent church with a tall spire. The sky is a mix of orange and blue. The text 'PtX is essential for reaching Denmark's goal of' is written in white above the large text 'net-zero', which is also in white and spans across the middle of the image. The word 'net-zero' is in a very large, lowercase, sans-serif font. The background image shows a harbor with a yellow ferry, a bridge, and city buildings under a twilight sky.

PtX is essential for reaching Denmark's goal of

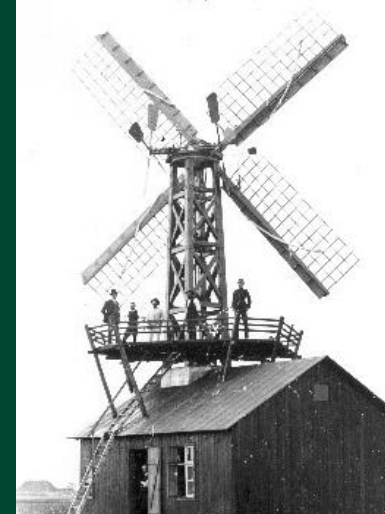
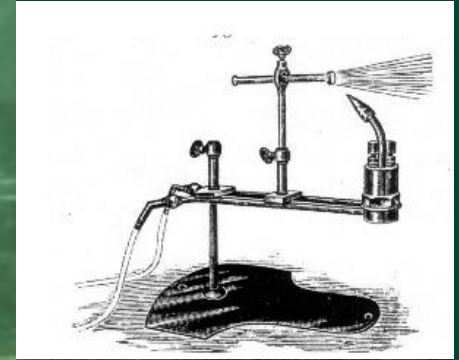
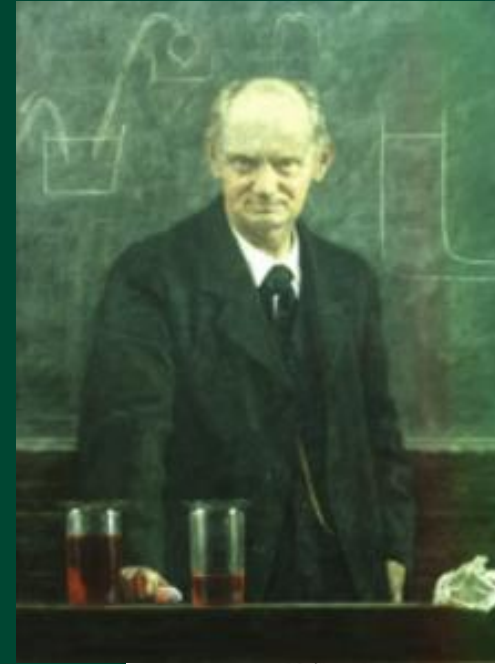
net-zero

By 2050

Old technology given new life

Hydrogen used as an industry feedstock in the **post-industrial world**

In 1894, **Danish inventor Poul la Cour** created his own electrolyser utilising wind as the power source



Denmark sees great Power-to-X potential

RENEWABLE ENERGY EXPORTER



Vast wind resources and cost-effective areas for offshore wind development

EXTENSIVE INFRASTRUCTURE



Low power prices, 99.99% energy availability, and extensive, stable infrastructure

SECTOR INTEGRATION



Sustainable carbon from biogas plants and access to storage options and district heating system

STRONG R&D HUB



Strong base for R&D with projects already proving the suitability for green hydrogen production

BROAD INDUSTRY COLLABORATION



Global players lead decarbonisation while using the strengths of public-private partnerships

LONG-TERM COMMITMENT



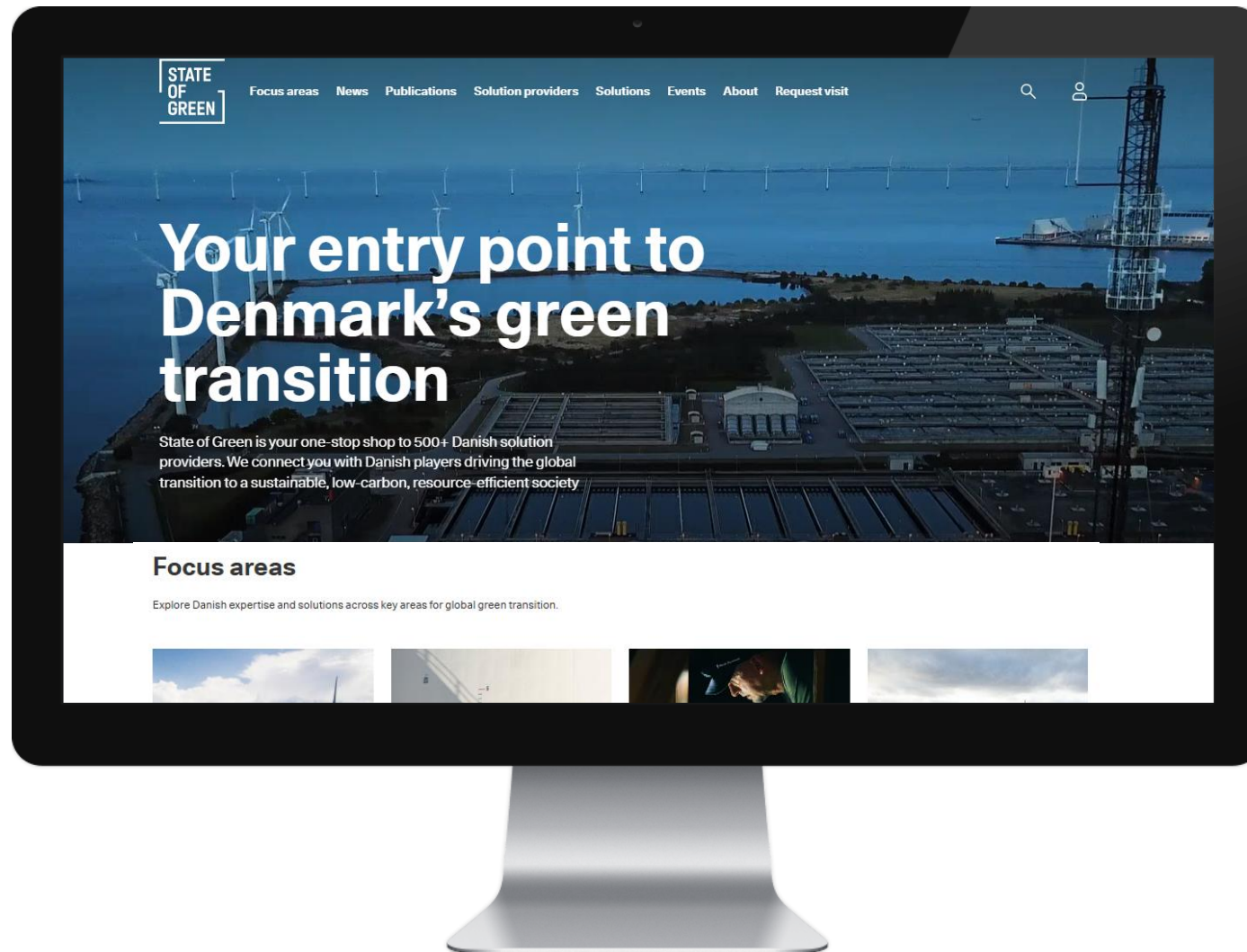
History of stable political frameworks and long-term commitments

An aerial, high-angle shot looking down at two workers on the white deck of a ship. The workers are wearing orange safety vests and orange hard hats. They are standing on the deck, which is bordered by black metal railings. The ship is moving through dark, choppy water, with white foam visible from the wake. The text "The journey starts here" is overlaid in white, sans-serif font across the center of the image.

The journey starts here

Your one-point entry to
Danish green solutions

+600
solution providers



+1,700 —
sustainable
solutions

stateofgreen.com



White papers for a green transition



Thank you!
Connect. Inspire. Share. Think Denmark



Scan the QR code and let us
know how we did