Wuhan Kaidi Yangguang Biological Energy Investment, China

"The **USA** looks forward to a **close partnership** with **Denmark** in this exciting, innovative new venture. **Yes we can!**"
Karl Stoltz, Deputy Chief of Mission, US. Embassy in Copenhagen

"I come from **India** and am always very **sceptical** of **how much** the people are **concerned** about **green issues**.
This was a **great demonstration**. I am very inspired and will **carry your motivation and message to my people**"
Umashsu Paneholy, C40 network

"Amazing. Very **impressive** and **good practice** by the **Danes**. Could be **replicated world-wide** and we could have a **sustainable future**!!
Keep up the good work",
Bogadi Mathangwane, Botswana Water Affairs

"Thank you for **sharing all your great ideas**.
We must all **save the planet**!"
Barbara Boxer, US Senator California

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Martha Marriner
Head of clean energy

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As an organisation

As a nation

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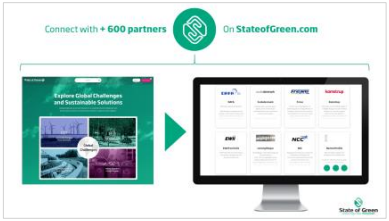

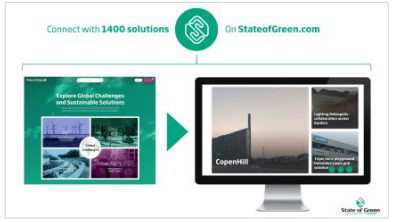

Introduction to What we do State of Green

As an organisation

As a nation

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Politicians

Authorities

Companies

We serve international political and commercial decision makers

What gives us credibility and agility

Public

Public - Private Partnership

Private

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Public - Private Partnership

Public

Private

Government

Ministry of Foreign Affairs of Denmark

Danish Ministry of Climate, Energy and Utilities

Ministry of Environment and Food of Denmark

Ministry of Industry, Business and Financial Affairs

Business organisations

Danish Energy

Representing 60 Danish energy companies

Confederation of Danish Industry

Voice of 10,000 Danish companies

wind denmark

Representing 200 companies in wind energy

Danish Agriculture & Food Council

Representing 186,000 employees in the farming and food industry

Corporate sponsors

Vestas

Sustainable wind power solutions

Ørsted

Leading green energy utility

Danfoss

Sustainable energy technologies

GRUNDFOS

#1 in energy efficient pumps

RAMBØLL

Engineering sustainable constructions

ROCKWOOL

World leader in stone based insulation

BWSC

Developer of renewable energy power plants

Fagligt Fælles Forbund

Largest trade union, representing 280,000 employees

3F Industri

Trade union for 230,000 workers

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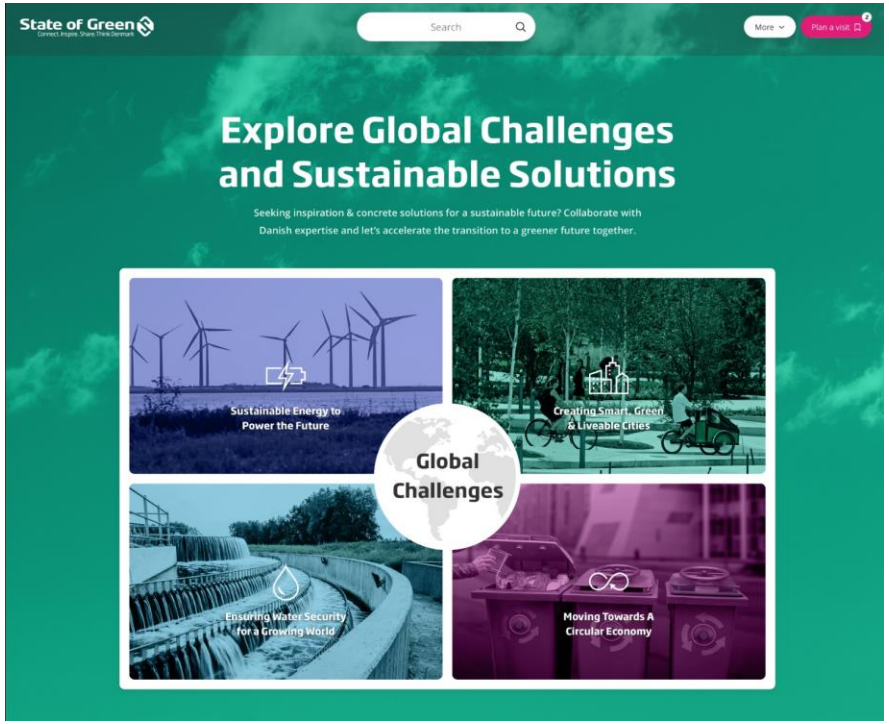

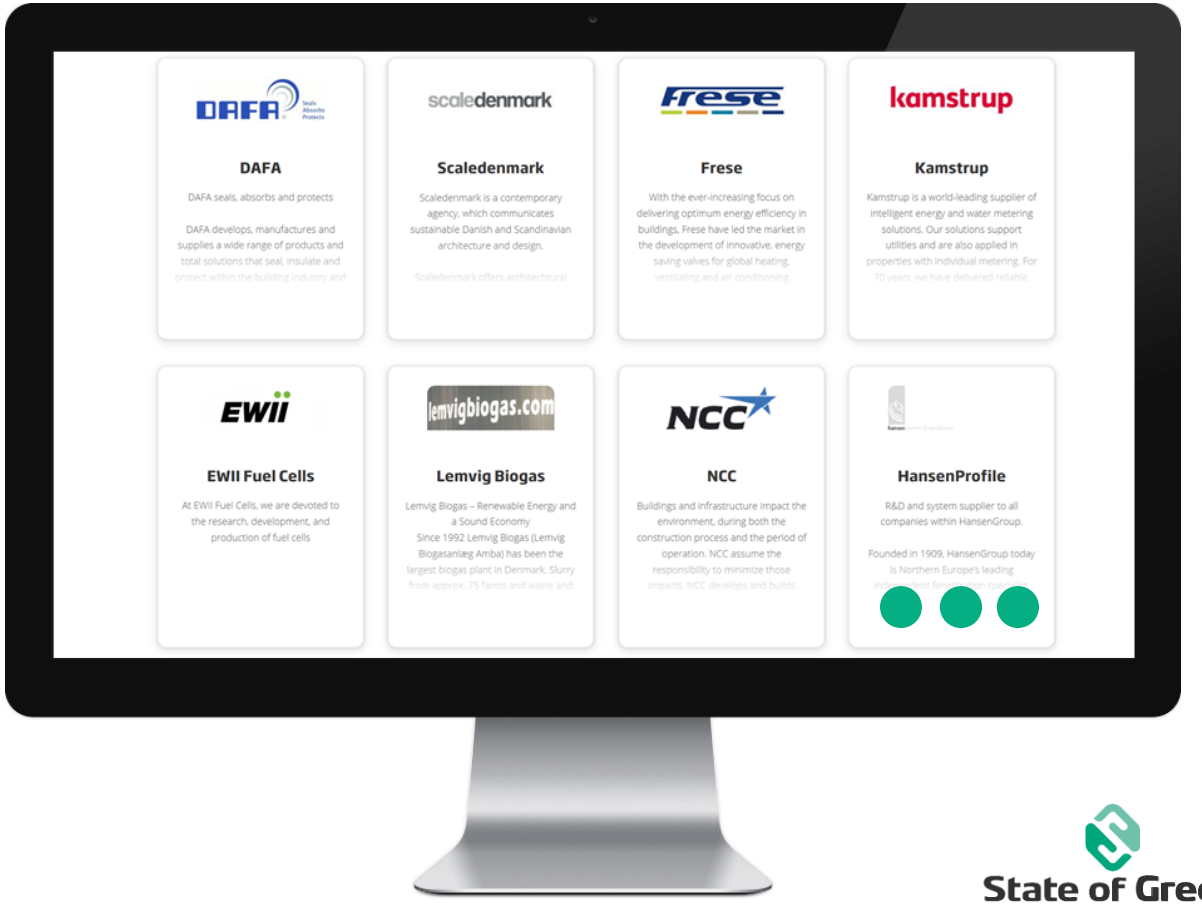

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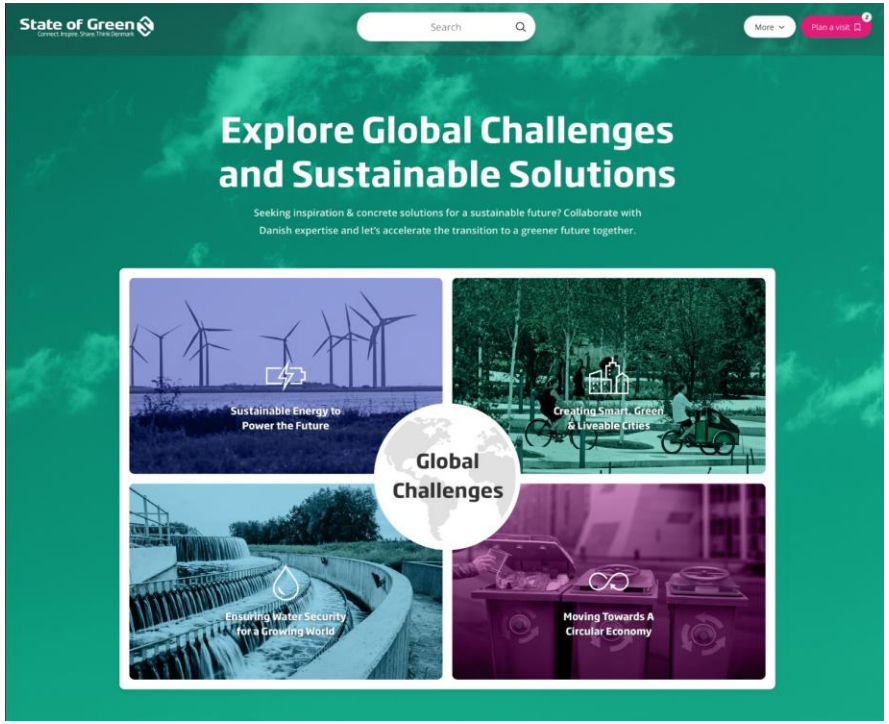

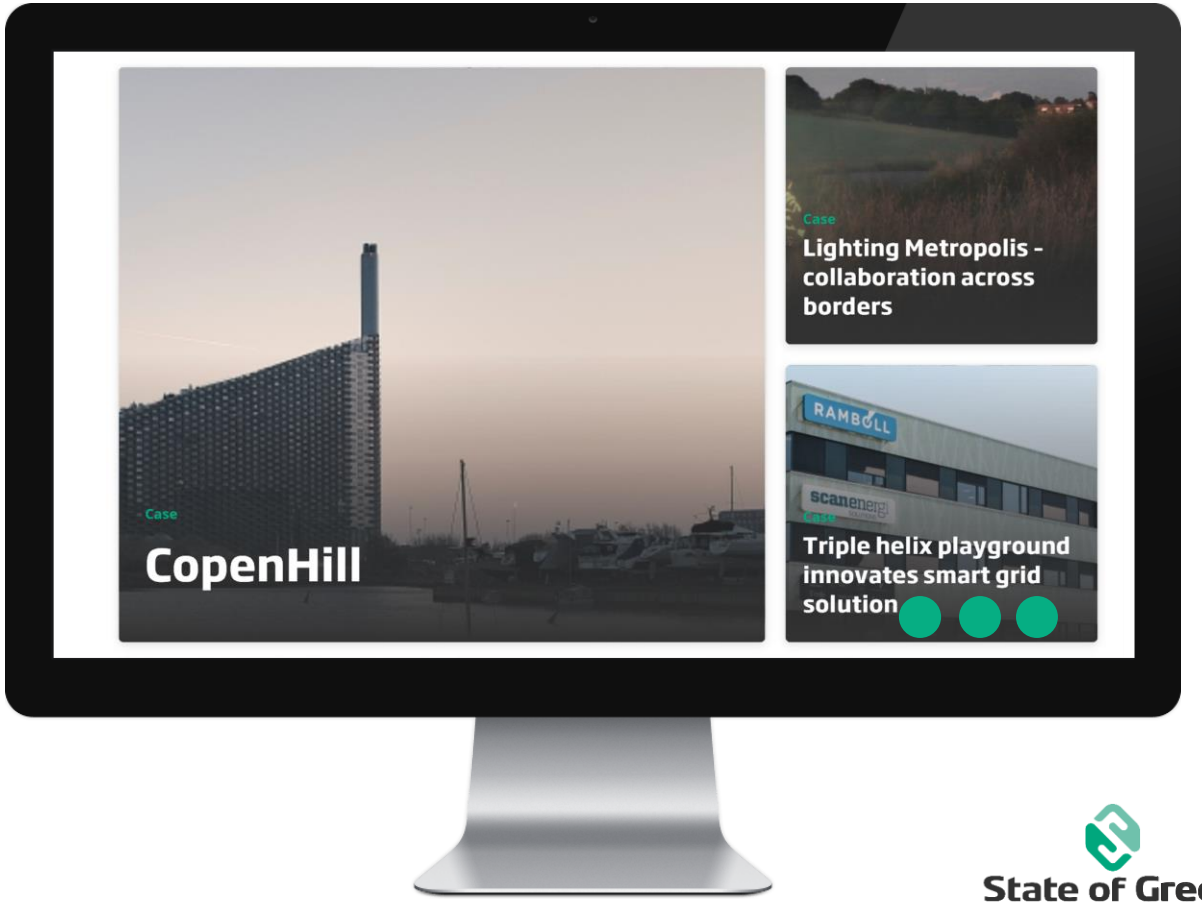

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What we do

How we do it

Selling and servicing

Project development

Sharing knowledge and fostering relations

For profit

Not-for-profit

Global Challenges

We inspire and connect

Solutions

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180
delegations
each year

We create connections

across the globe

50
countries
each year

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As an organisation

As a nation

1970

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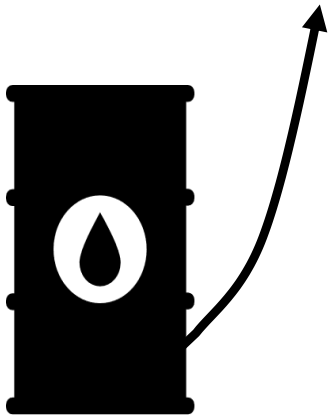
The story of Denmark's green transition

Stepping stones



- **99 % dependent** on imported energy
- **Oil crisis** with soaring prices hit Denmark's economy hard
- **A wake-up-call**: From energy security to energy diversity

Energy and resources

2%
Renewable energy in energy consumption

0%
Water savings

0%
Share of household waste recycled

1970 · 1985 · 1997 · 2012 · Today · 2030 · 2050

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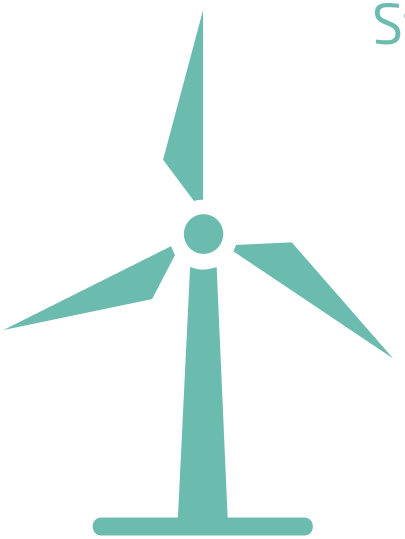
The story of Denmark's green transition



Stepping stones

- 1971: World's first **ministry of environment** is established
- 1976: Denmark's first national **energy action plan** is introduced
- 1985: Denmark's parliament: **No to nuclear power** – yes to expansion of wind energy capacity to 100 MW and focus on **energy efficiency**

Energy and resources

7%

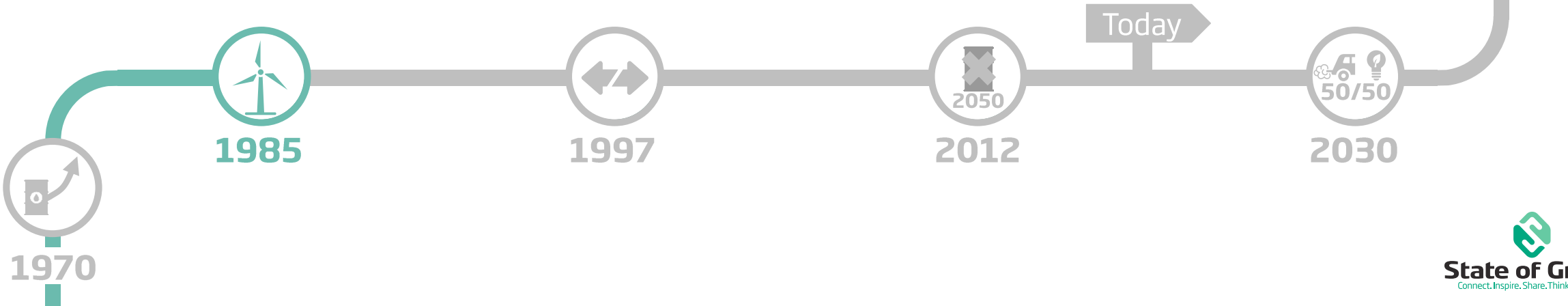
Renewable energy in energy consumption

3%

Water savings since 1980

8%

Share of household waste recycled



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The story of Denmark's green transition

Stepping stones

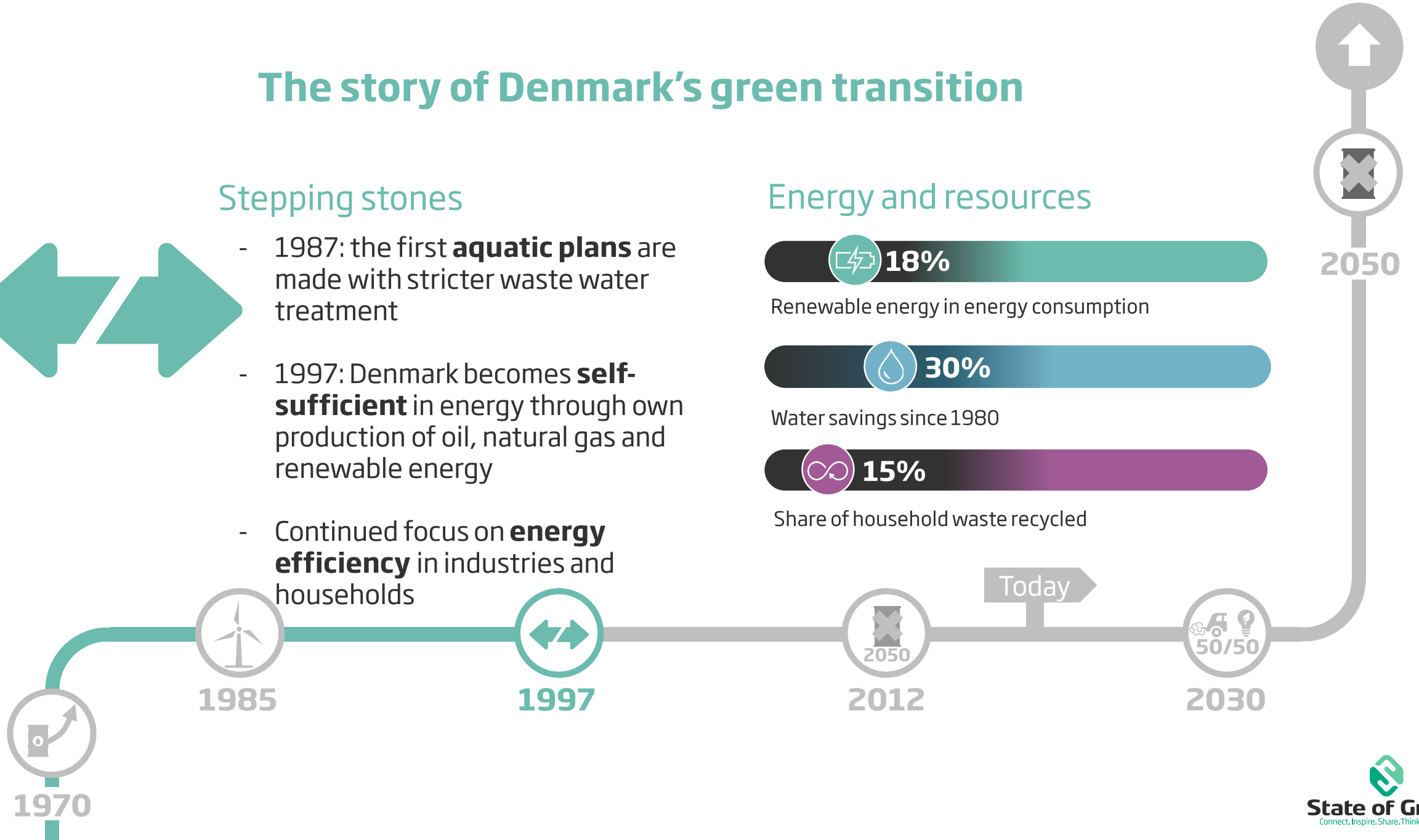
- 1987: the first **aquatic plans** are made with stricter waste water treatment
- 1997: Denmark becomes **self-sufficient** in energy through own production of oil, natural gas and renewable energy
- Continued focus on **energy efficiency** in industries and households

Energy and resources

18%
Renewable energy in energy consumption

30%
Water savings since 1980

15%
Share of household waste recycled



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The story of Denmark's green transition

2050

Stepping stones

- Danish Energy Agreement in 2012: **Denmark independent of fossil fuels by 2050**
- The agreement is characterised by its **ambitious** scope, **broad political** support and **long time horizon**

Energy and resources

23%

Renewable energy in energy consumption

40%

Water savings since 1980

43%

Share of household waste recycled

1970 · 1985 · 1997 · 2012 · Today · 2030 · 2050

The story of Denmark's green transition

June 2018: New Danish Energy Agreement

- Agreement reaffirms and strengthens Denmark's **climate and energy goals towards 2030**
- **All parties** in the Danish parliament behind agreement
- Fulfills obligations regarding the **UN SDGs**

Key elements:

- Three new large offshore wind farms – 2,400 MW
- New funds for onshore wind and solar energy – EUR 560 million
- Targeted effort to realise energy savings –EUR 67 million
- Strengthening energy and climate research – EUR 78 million up to 2024, hereafter EUR 134 million

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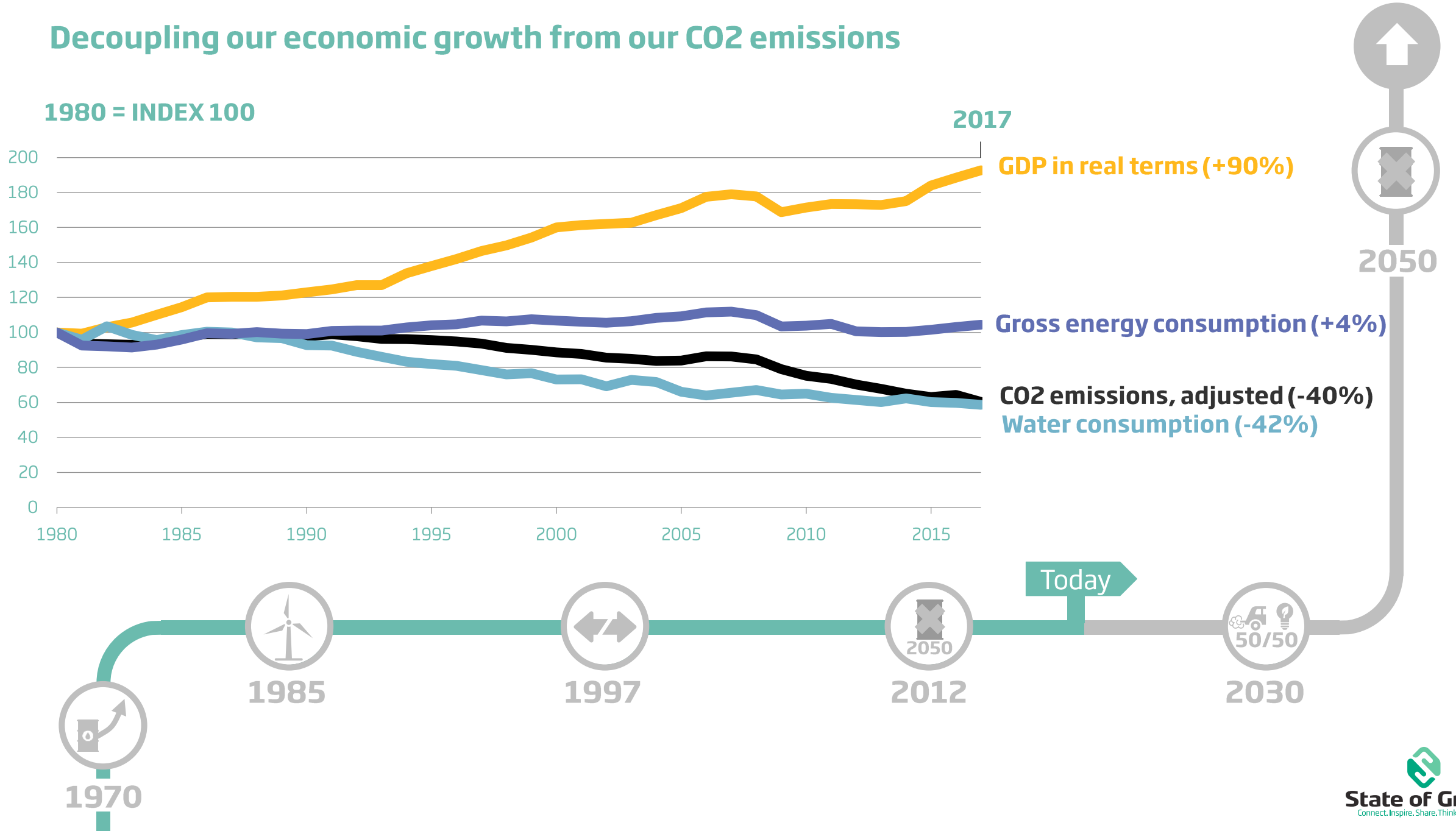
Decoupling our economic growth from our CO2 emissions



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The Danish green economy 2017

Employment

76,051
full-time workers

GDP

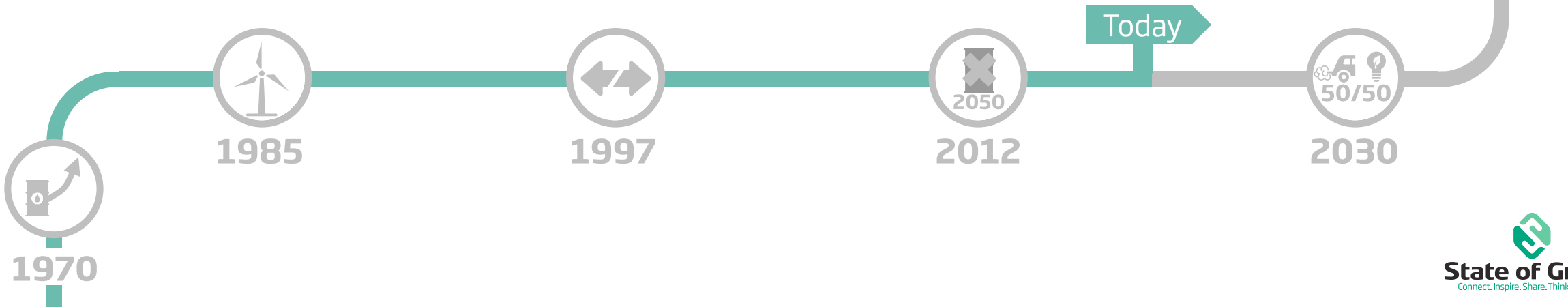
Contributes EUR
8.17 billion
to GDP

Turnover

EUR
30.54 billion
in turnover

Export

Contributes
EUR **10.85 billion**
to exports



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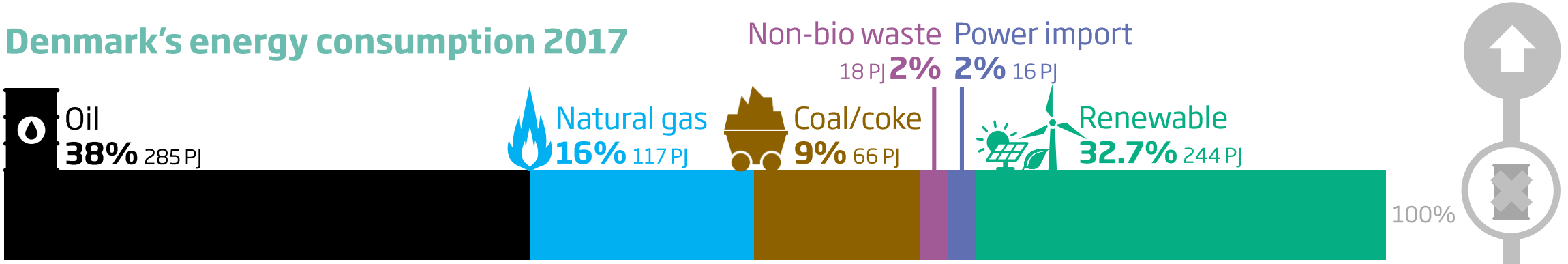
Denmark's energy consumption 2017



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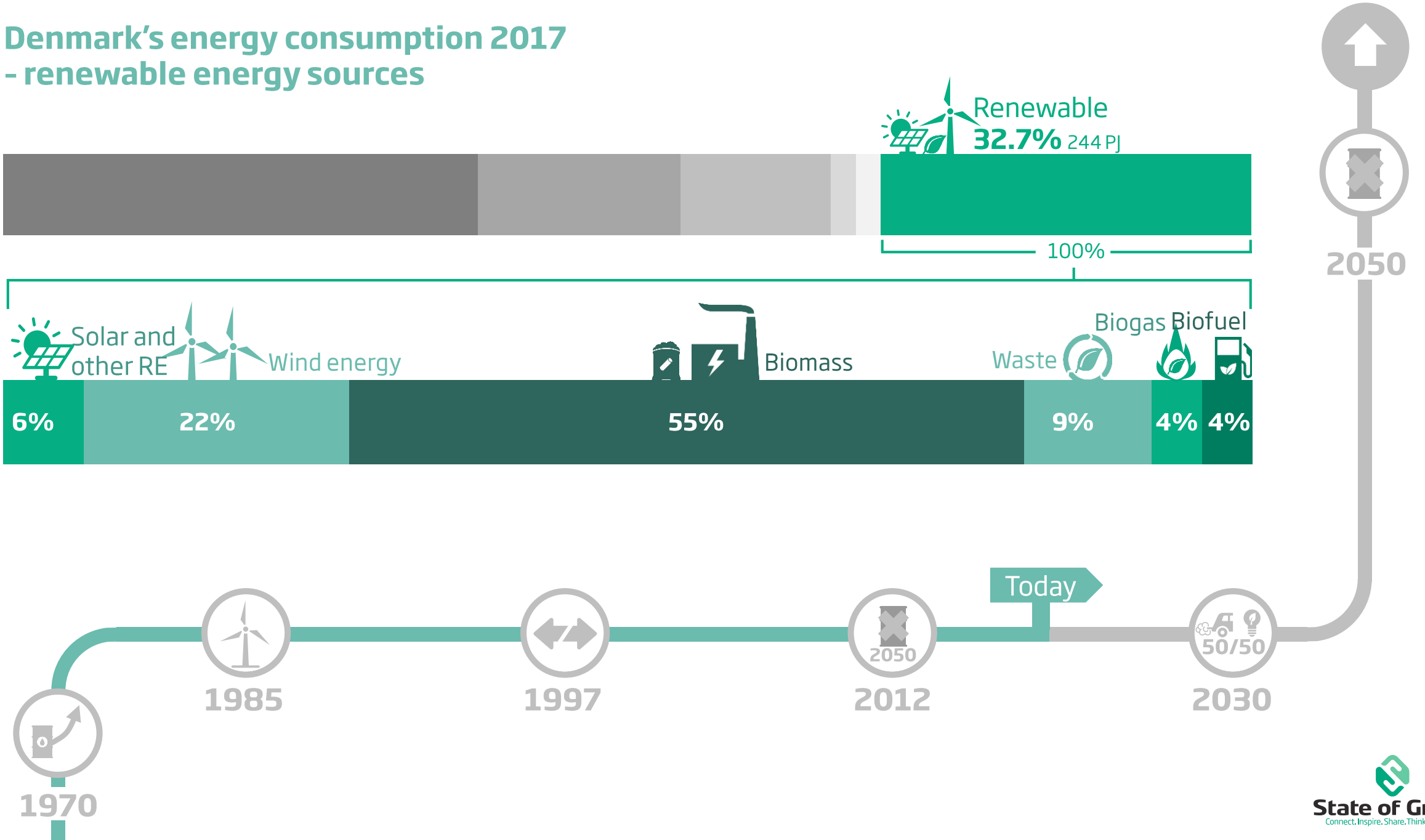
Denmark's energy consumption 2017 - renewable energy sources



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The story of Denmark's green transition

50/50

2030 goals:

- Sourcing up to **55%** of energy needs from renewable energy
- Electricity consumption covered **100%** by renewables

EU goals:

- Achieving **32.5%** in energy savings

Energy and resources

55%

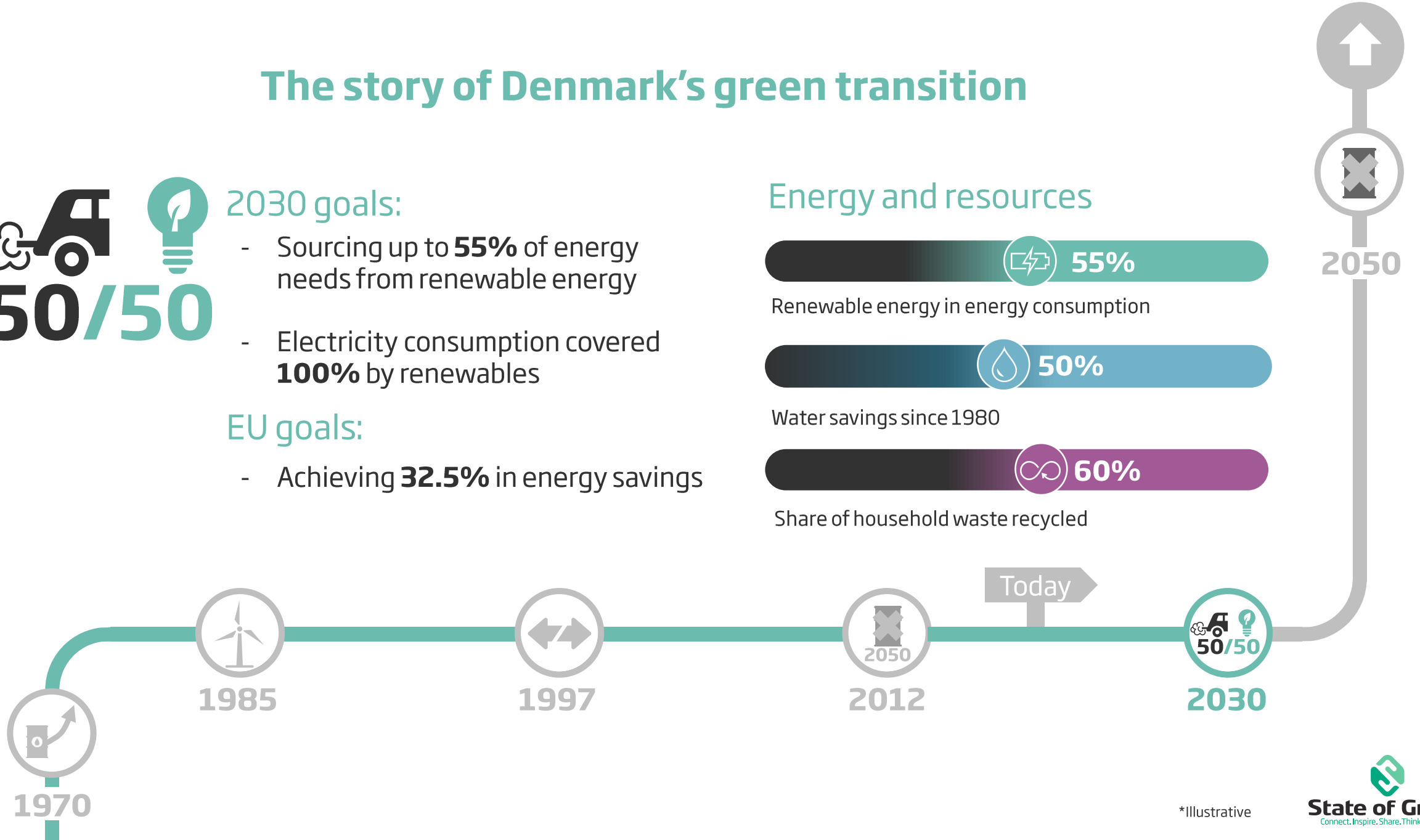
Renewable energy in energy consumption

50%

Water savings since 1980

60%

Share of household waste recycled



*Illustrative

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The story of Denmark's green transition

2050 goal:

- Low carbon society - **Denmark independent of fossil fuels by 2050**

Other effects

- Produce more renewable energy than we consume
- Non-ETS sectors (agriculture, transportation, buildings)
- Moving towards a circular economy

Energy and resources

100%

Renewable energy in energy consumption

?%

Water savings since 1980

?%

Share of household waste recycled

1970

1985

1997

2012

Today

2030

2050

2050

50/50

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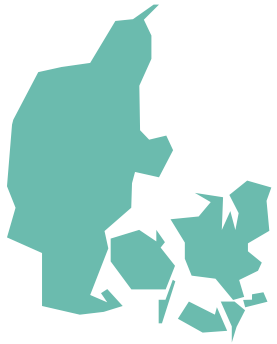
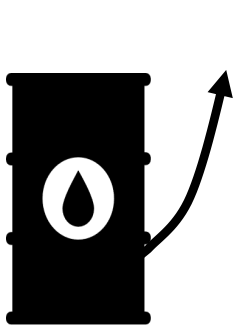
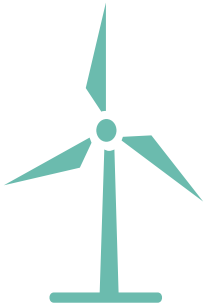
The story of Denmark's green transition





1970



1985

1997

2012

2030

2050

Today

Moving from black to green is challenging
and requires collaboration and partnerships

1970

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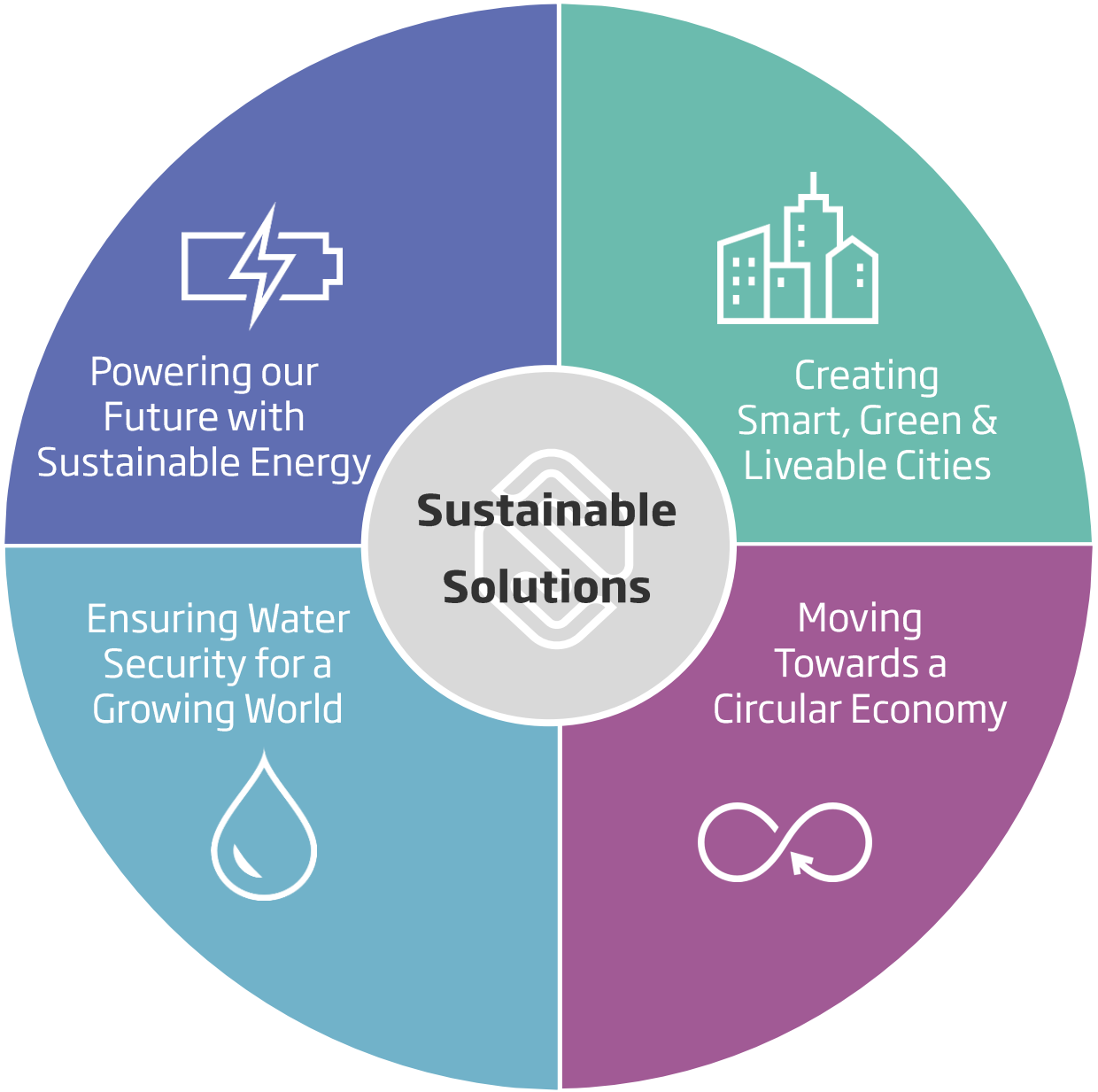
Our ambition is to connect, inspire and share Danish experiences

Today

1970



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Powering our Future with Sustainable Energy

- a global challenge with far-reaching implications and vast opportunities

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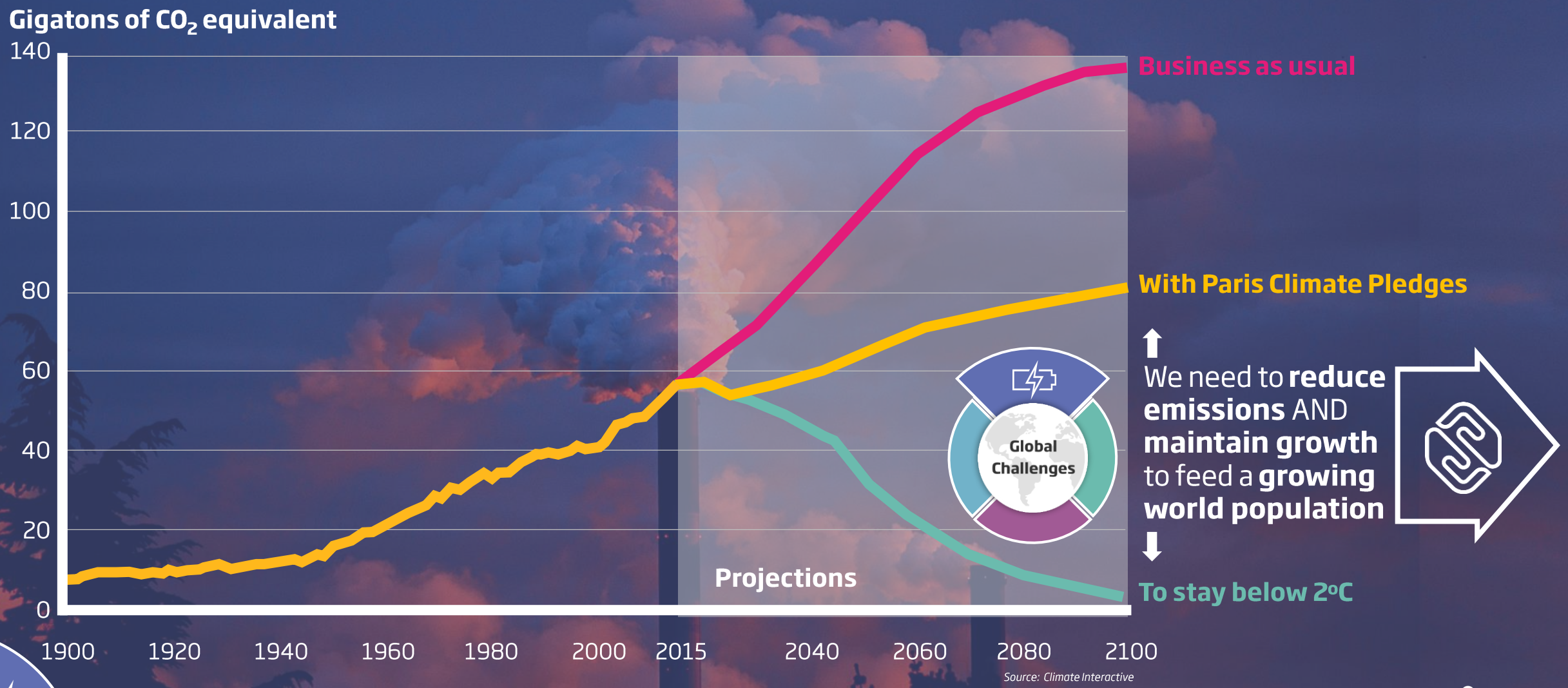
Sustainable energy is a matter of saving the planet



Source: Climate Interactive

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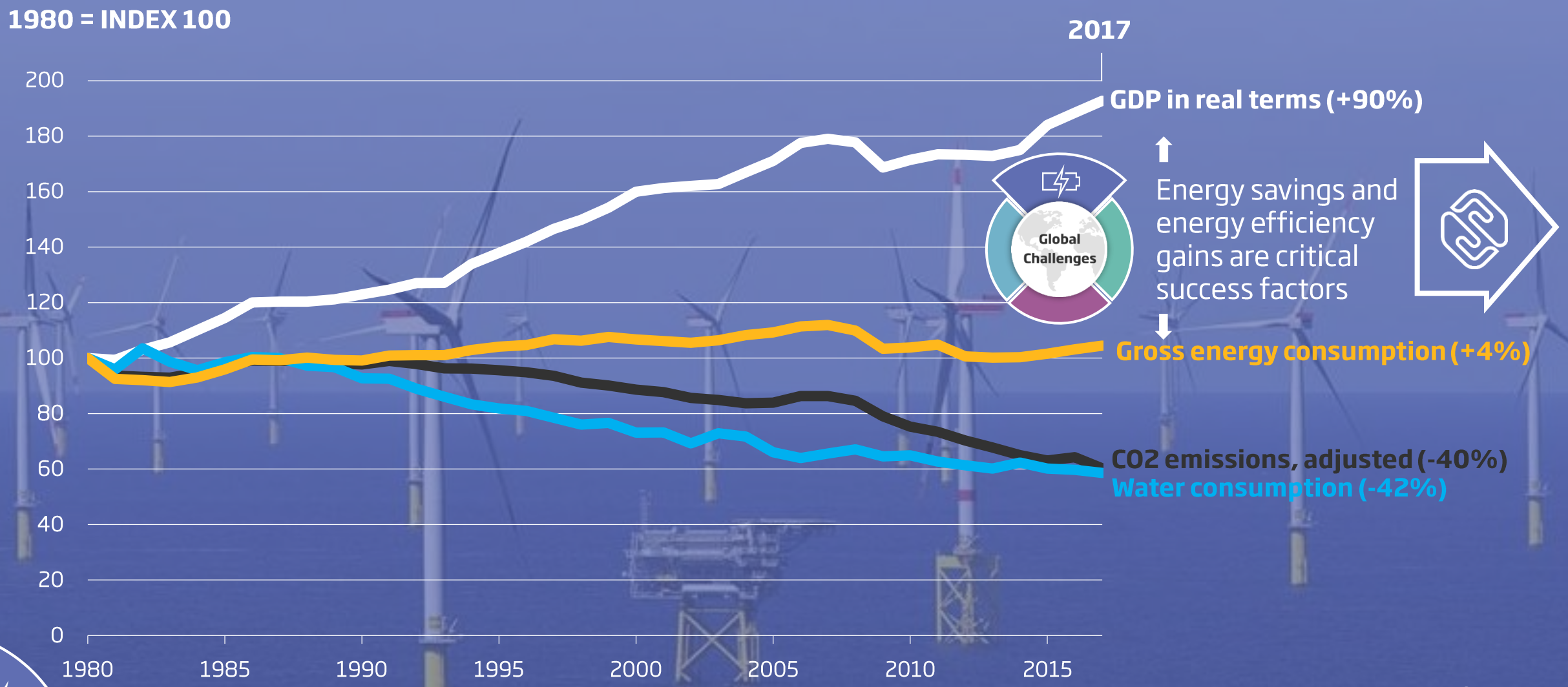
Growth with reduced water consumption and CO2 emissions is possible



Source: Statistics Denmark, the Danish Energy Agency and DANVA

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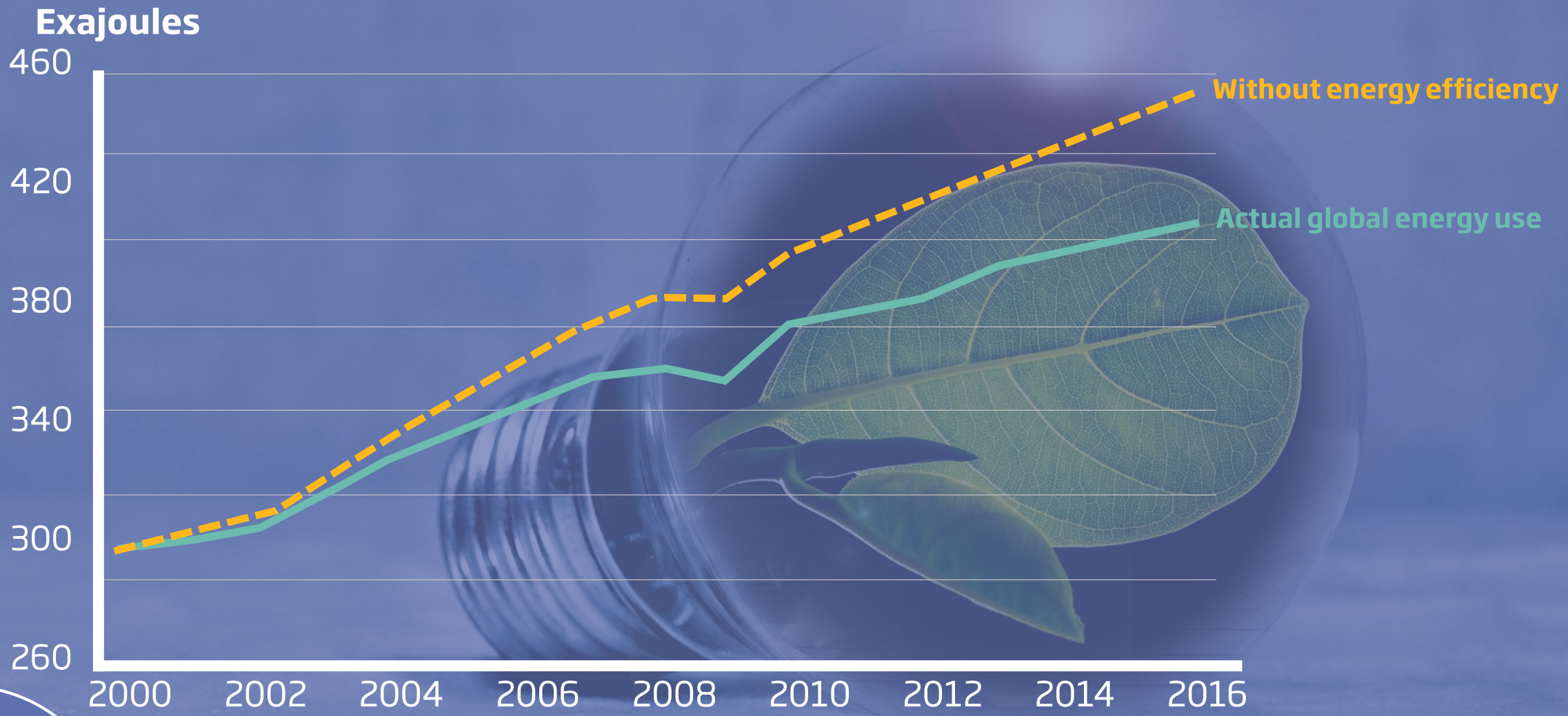
Energy use with and without savings from efficiency improvements



Source: World Output Database, IEA 2017 Energy Efficiency Indicators

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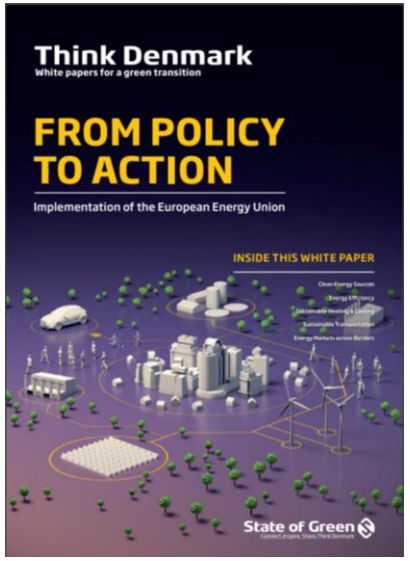
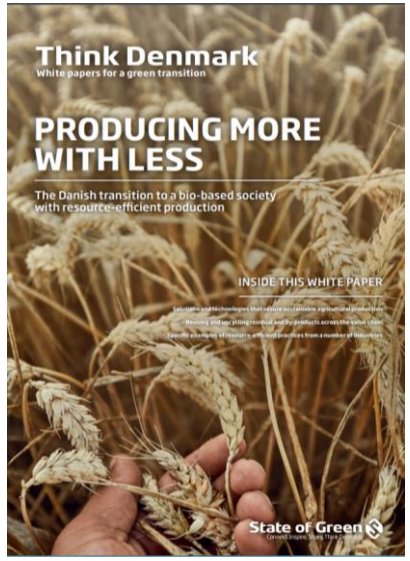
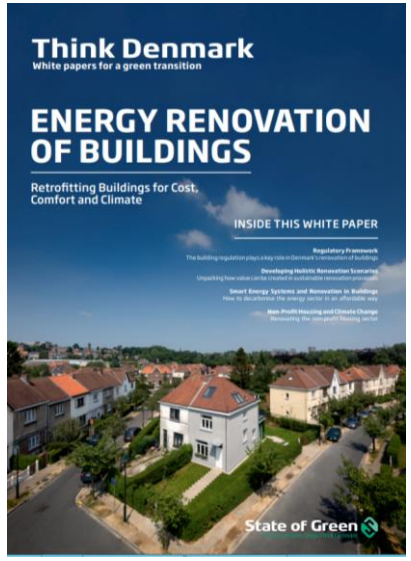
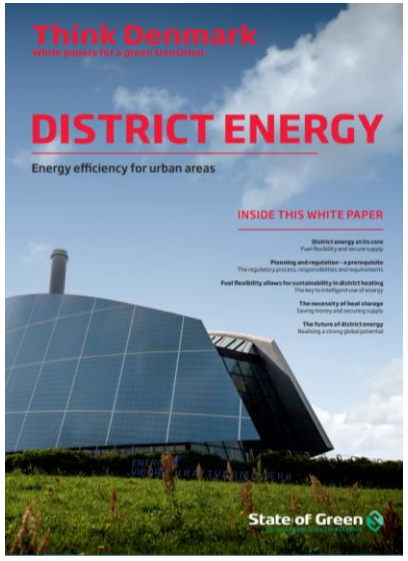
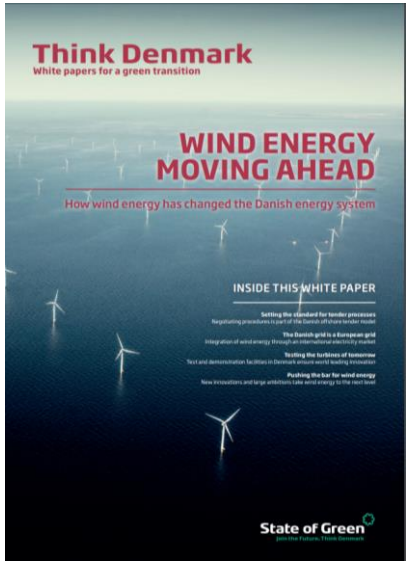
White Papers for energy professionals

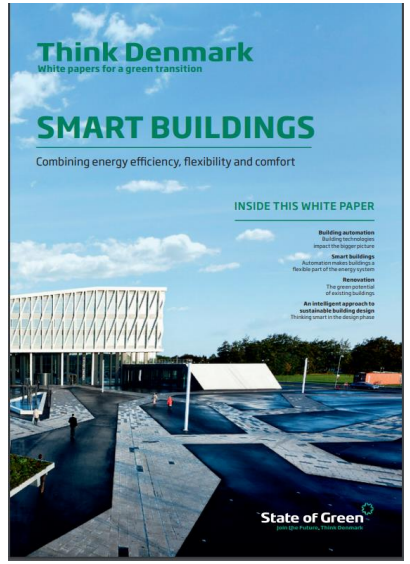


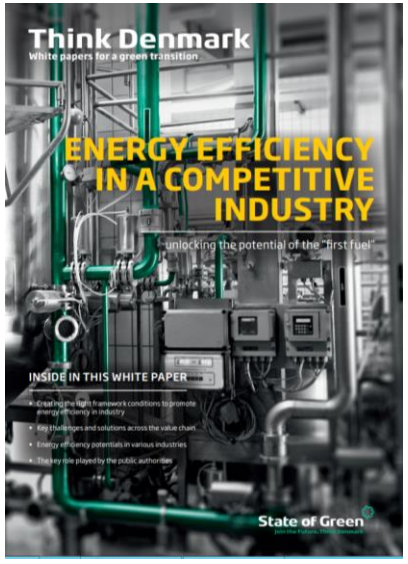












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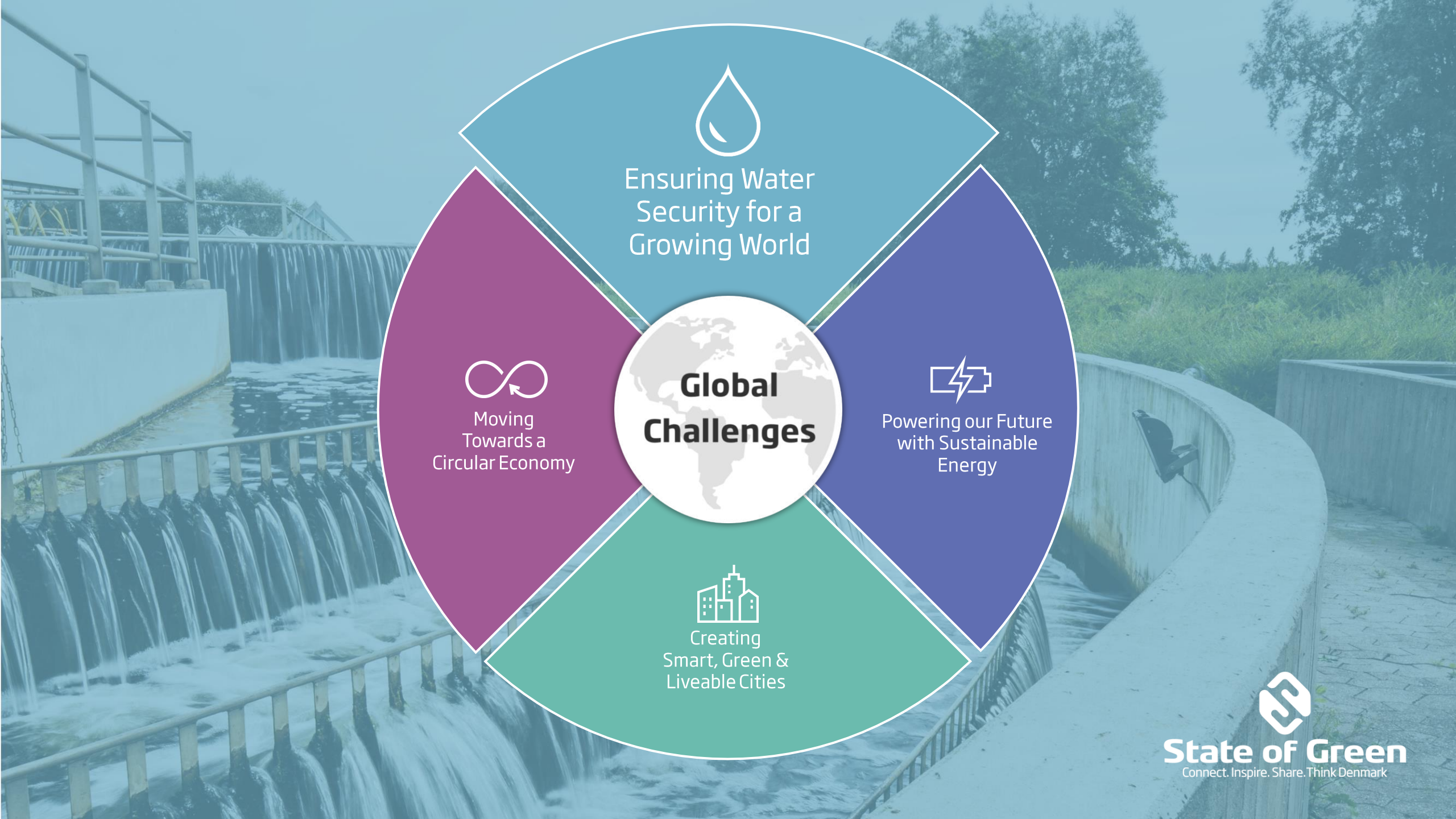

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17 PARTNERSHIPS FOR THE GOALS
1 NO POVERTY
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
2 ZERO HUNGER
15 LIFE ON LAND
3 GOOD HEALTH AND WELL-BEING
14 LIFE BELOW WATER
4 QUALITY EDUCATION
13 CLIMATE ACTION
5 GENDER EQUALITY
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
6 CLEAN WATER AND SANITATION
11 SUSTAINABLE CITIES AND COMMUNITIES
7 AFFORDABLE AND CLEAN ENERGY
10 REDUCED INEQUALITIES
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
8 DECENT WORK AND ECONOMIC GROWTH
Ensuring Water Security for a Growing World
- a global challenge that is crucial to tackle in the coming decades
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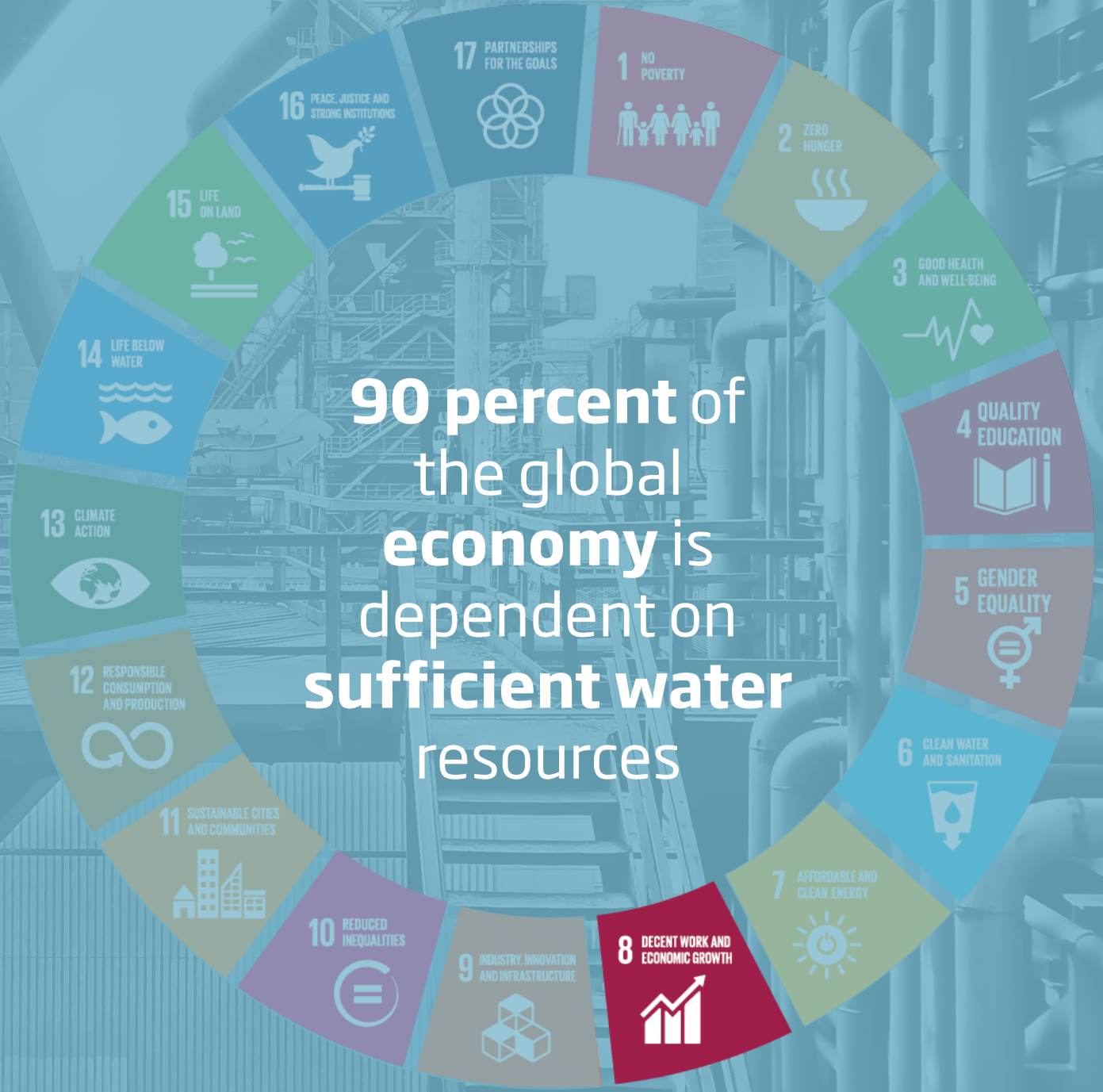

90 percent of the global **economy** is dependent on **sufficient water** resources

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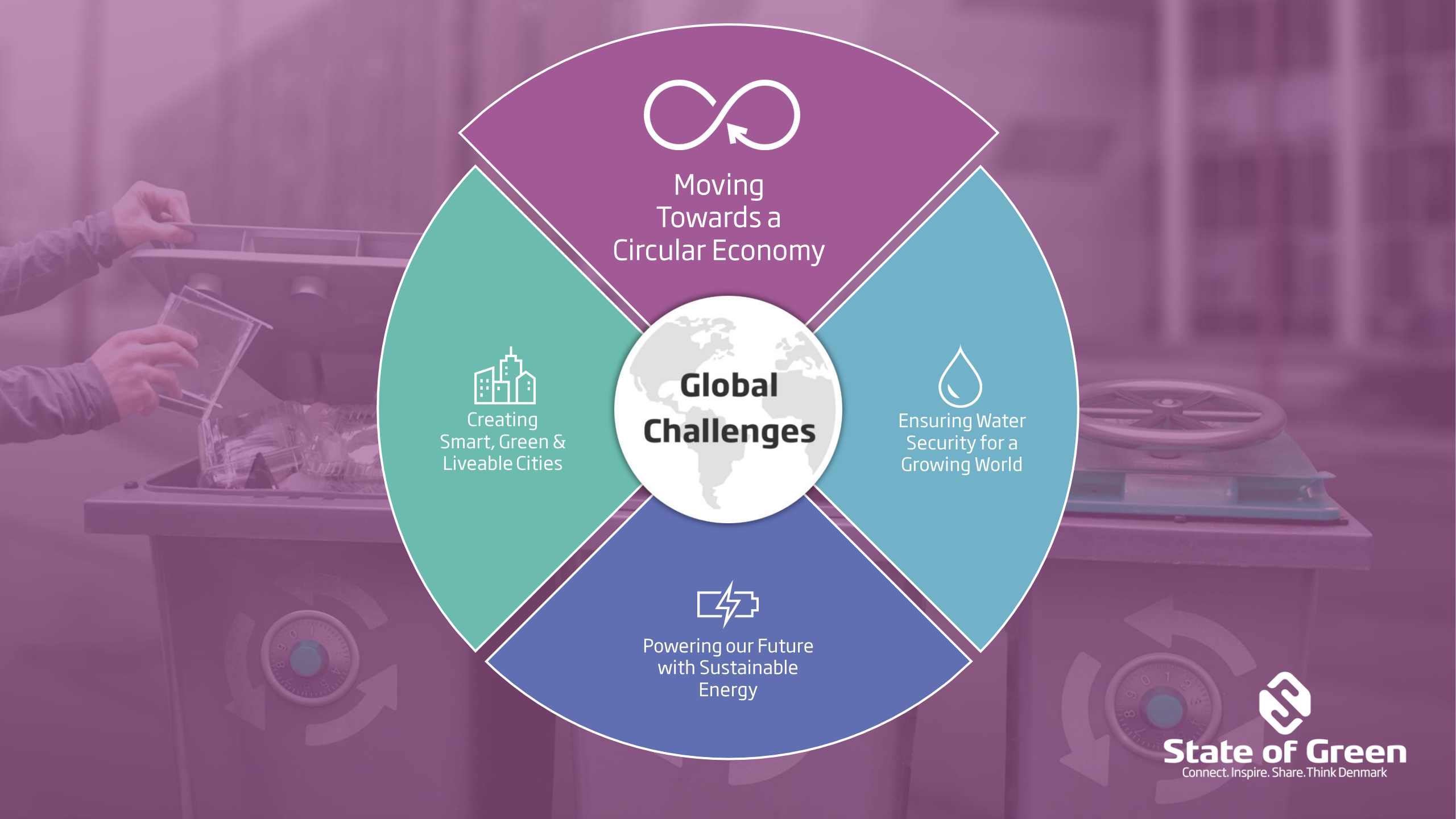

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Today:  7.6 Billion

Earth x 1.7

Is how big the planet should be to meet our resource demand

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We need a circular economy
2100: 11.2 billion
Imagine
How big it should be
by the year 2100!

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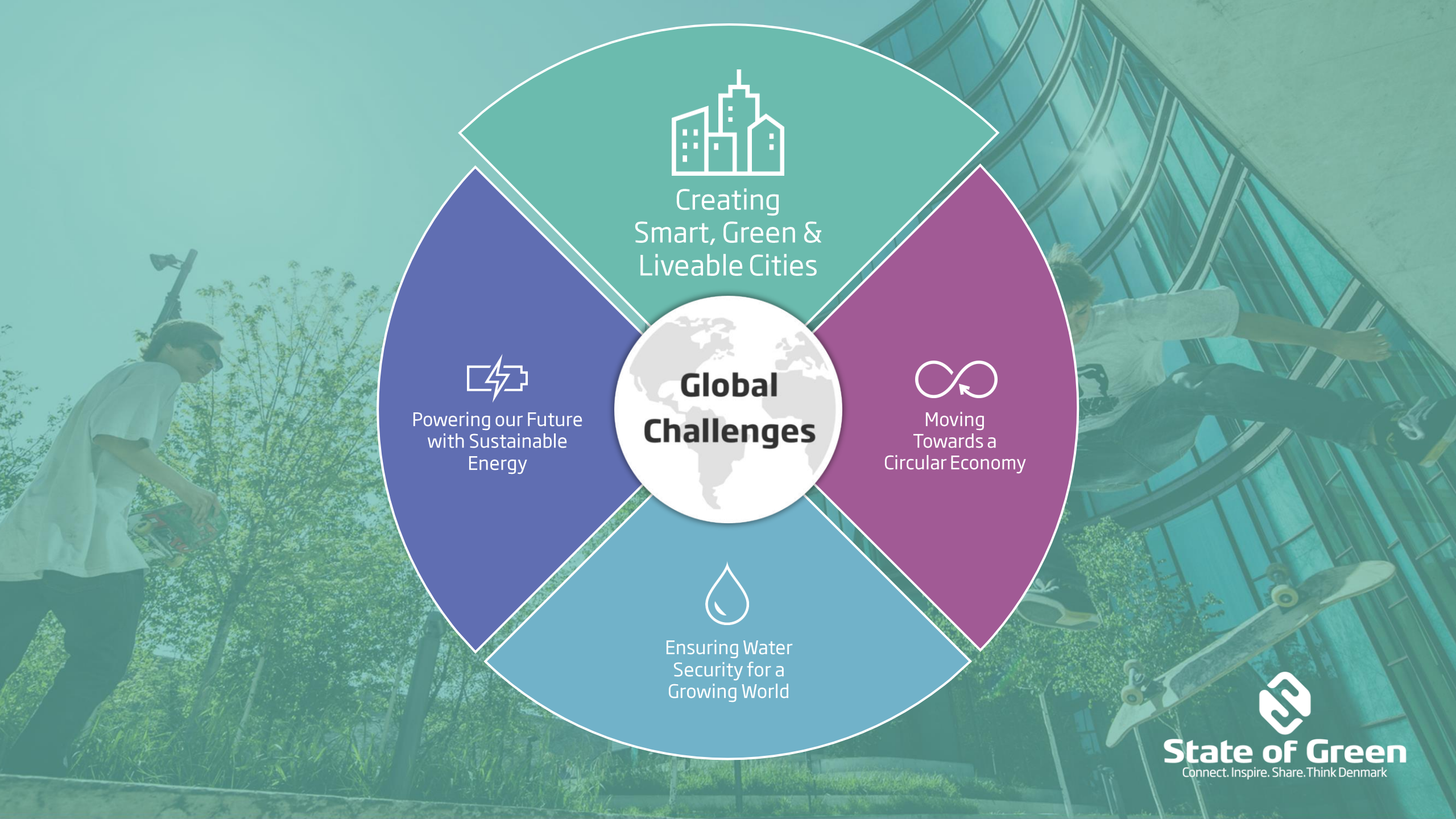

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8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
Creating Smart, Green & Liveable Cities
- a global challenge with massive impact on our common future
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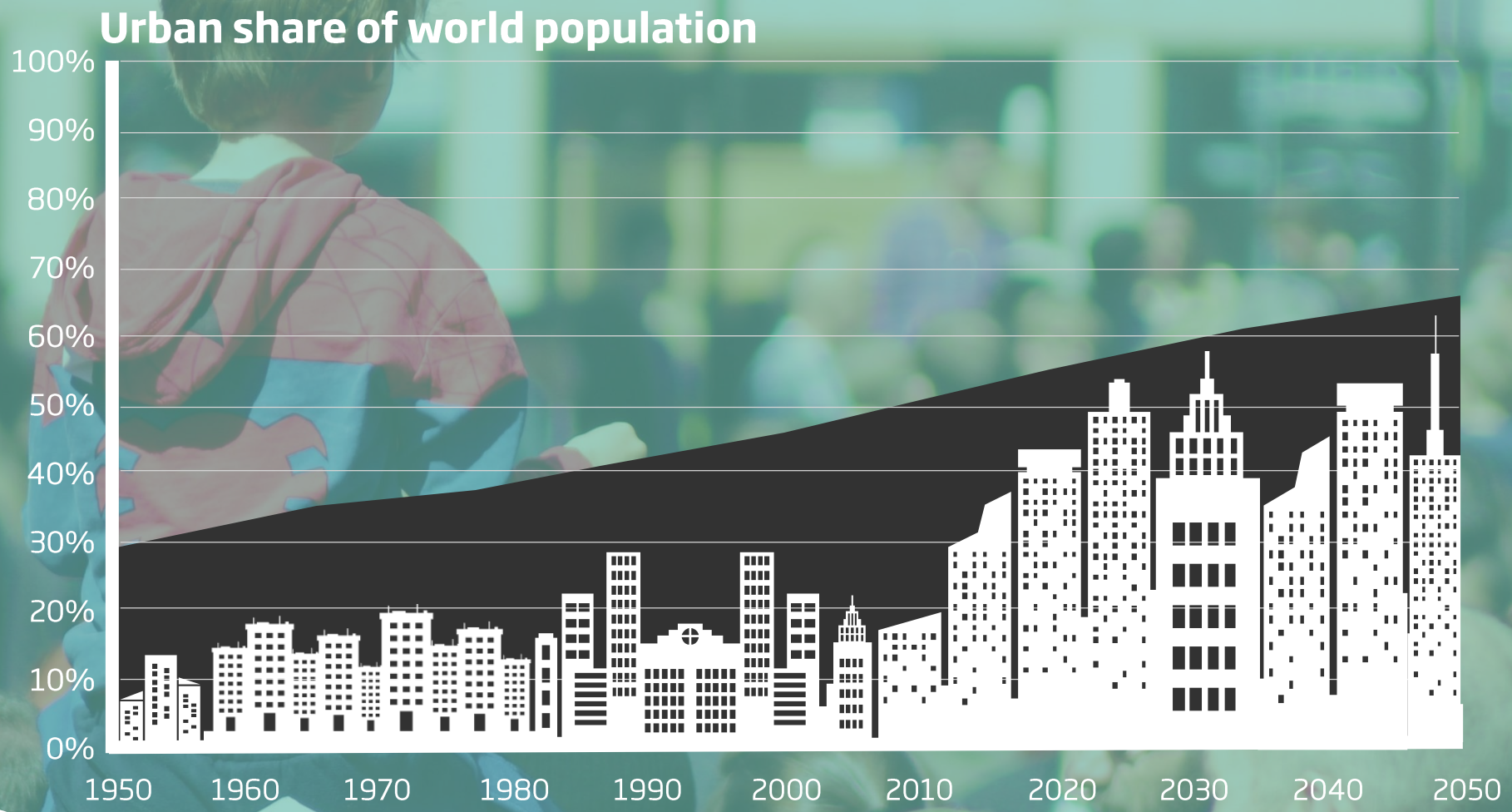
We are facing a mass movement of urban migration



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Examples of cities under severe stress

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Air pollution

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Frequent power cuts

Floodings

Our floodings are not yet costal

But Denmark also faces the consequences of global warming

New York

Guangzhou

New Orleans

Miami

Abidjan

Mumbai

Bangkok

Nagoya

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Waste management

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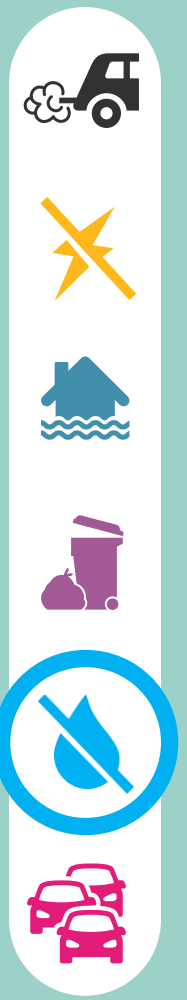
Water scarcity



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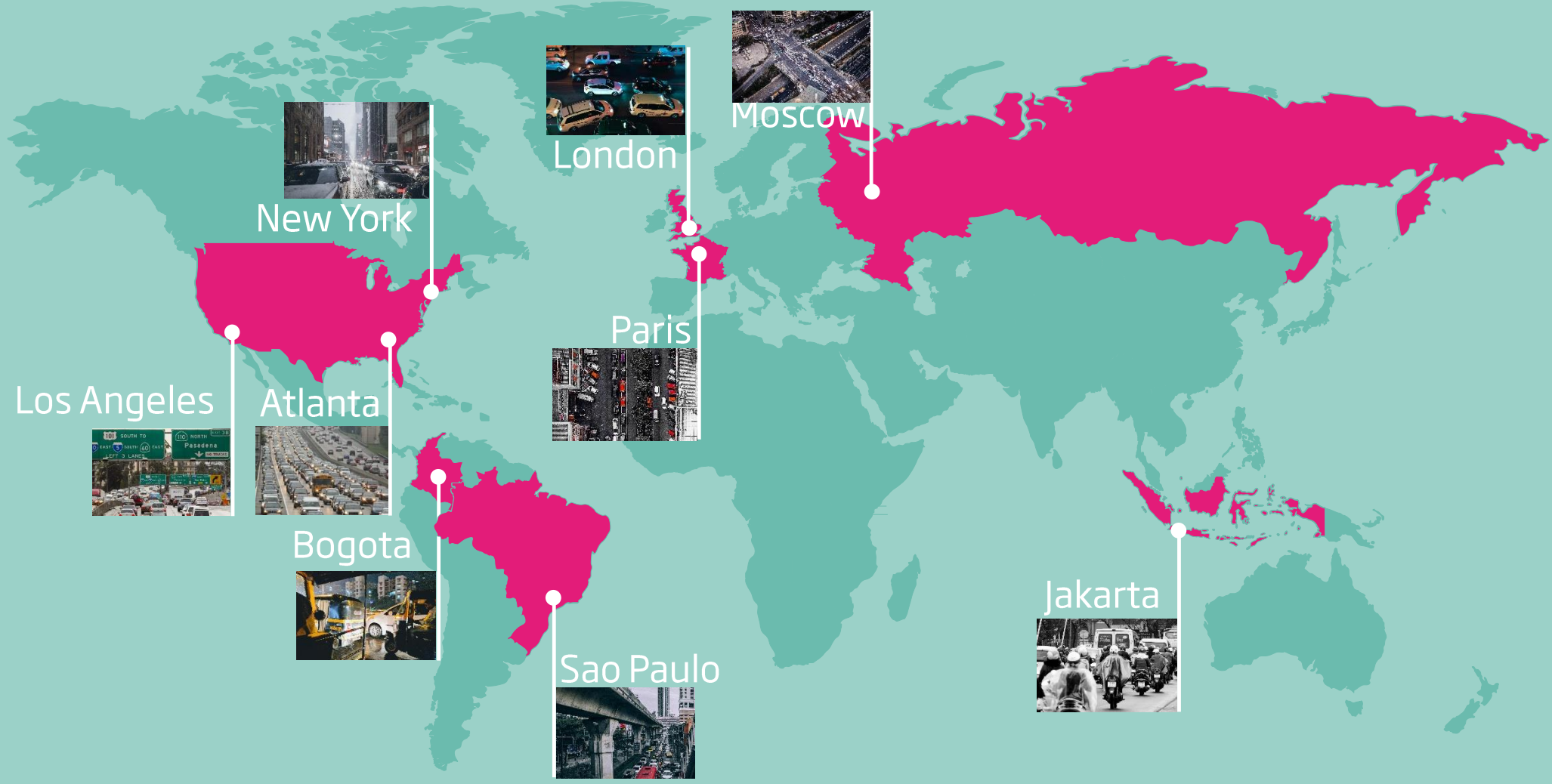
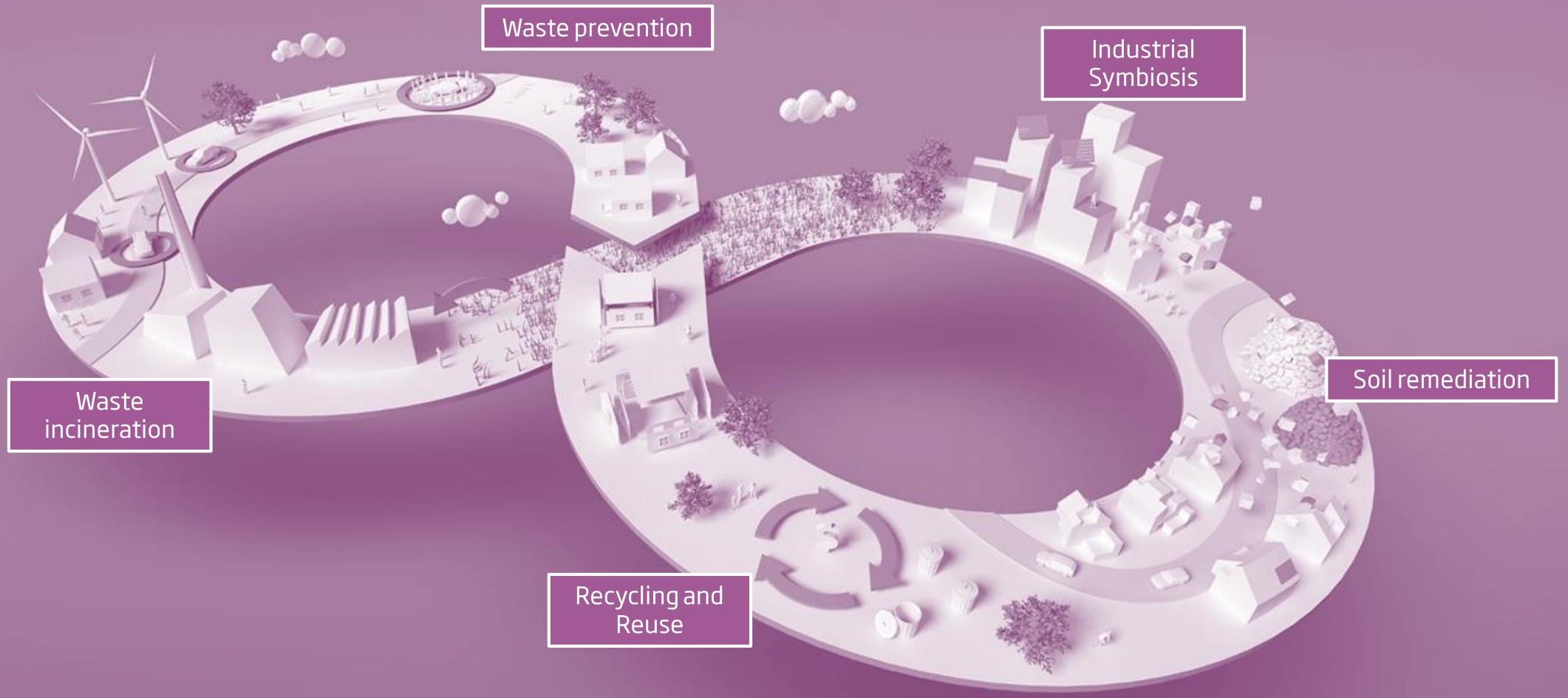
Traffic congestion



Circular Economy



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Smart, green and liveable cities

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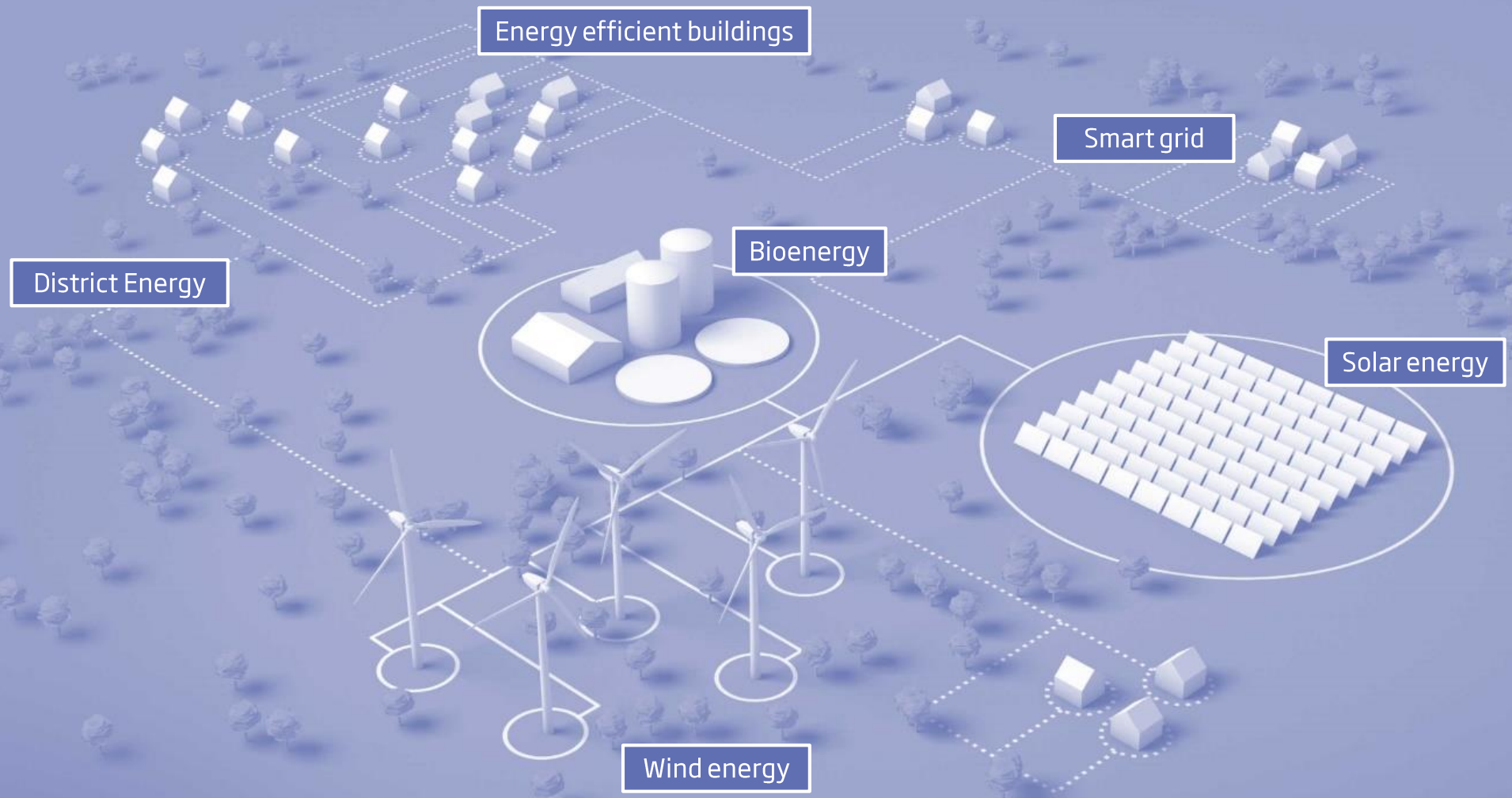
Clean Energy Sources



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Bioenergy

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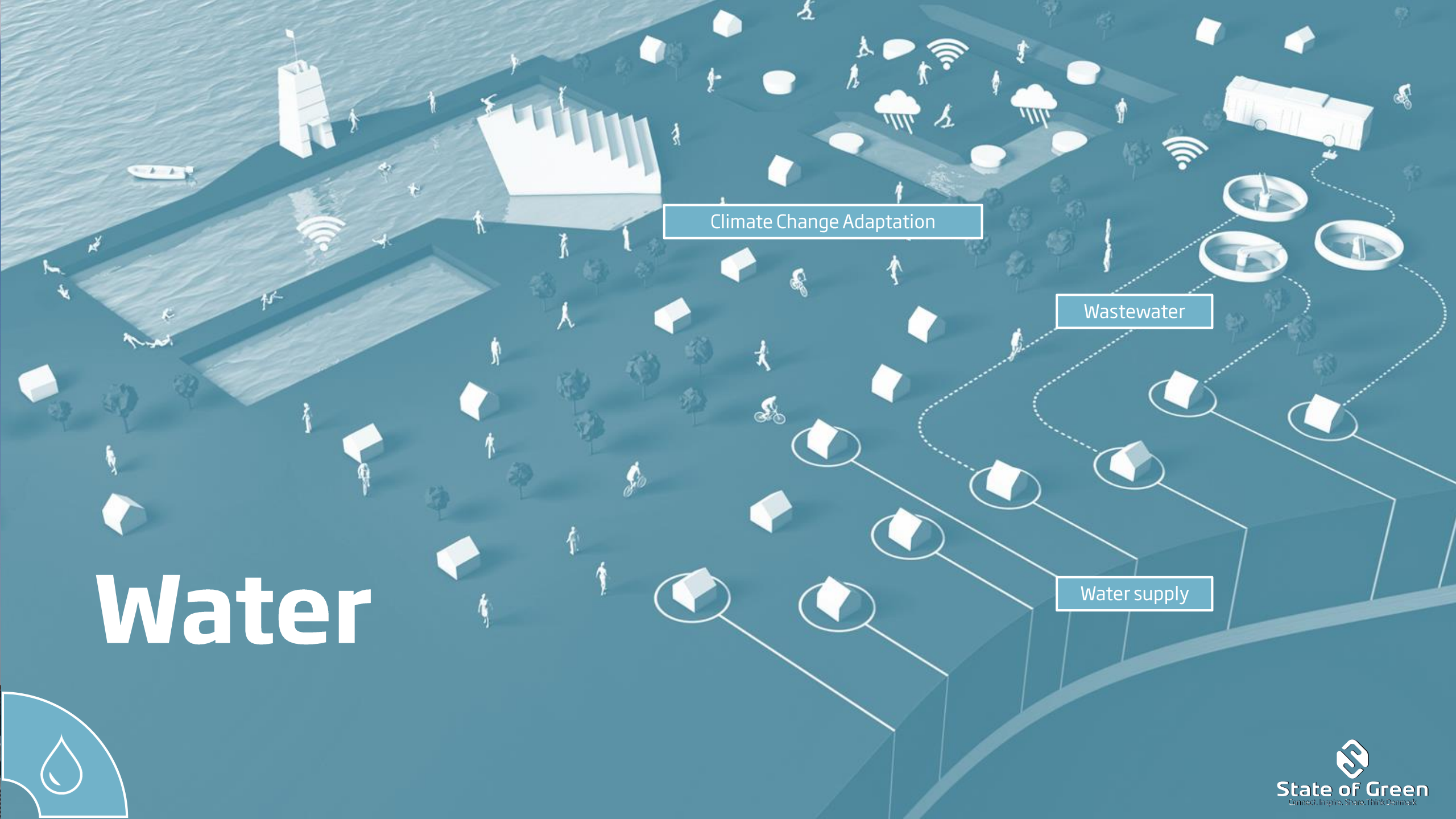

Water

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Thank you for your attention

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