

Question on everyone's mind ?

- ✓ *Balancing between energy security and net-zero goals*
- ✓ *Can both be obtained simultaneously ?*



A sustainable multi-energy company

- ✓ *Is it achievable ?*

01.

What is our departure point?

Climate context and energy challenges

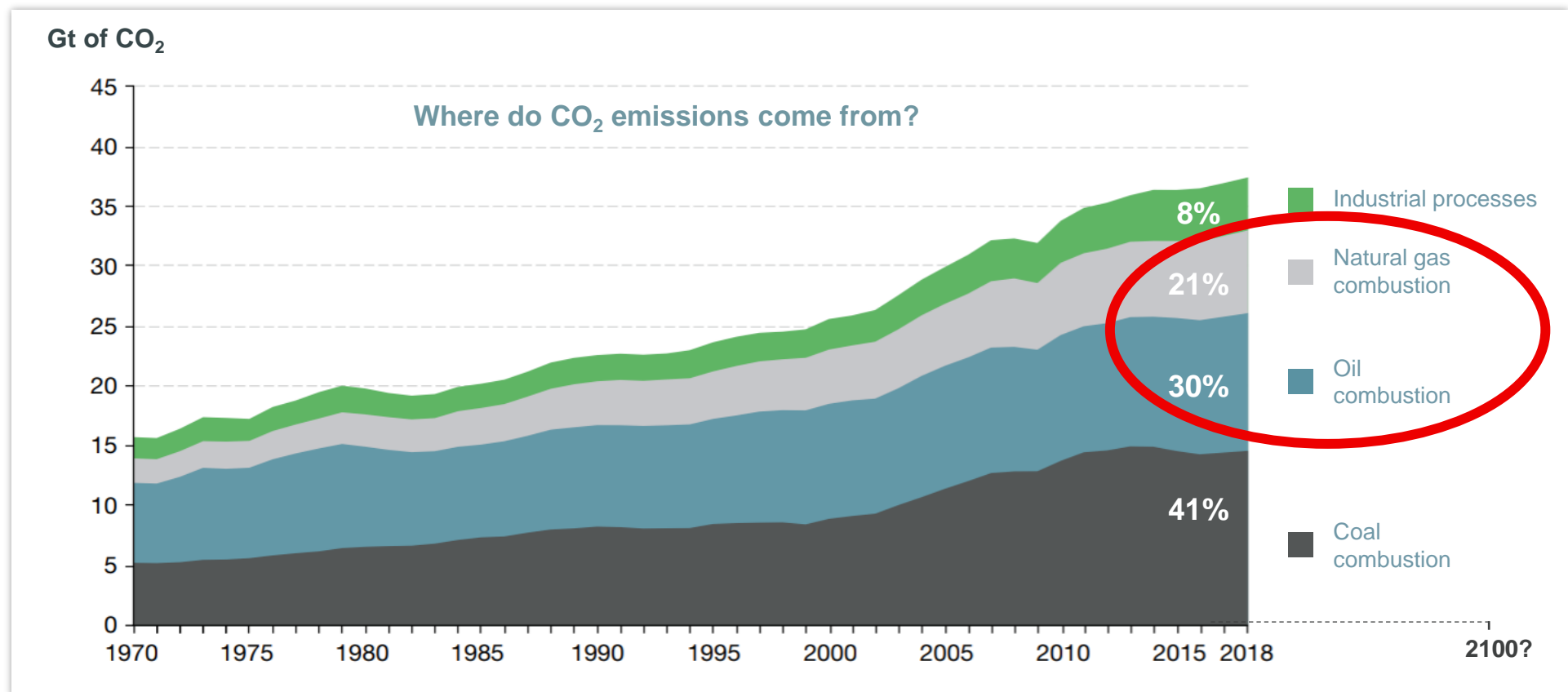


- **Climate change is a reality** and requires society as a whole to mobilise.
- The climate's equilibrium is being disrupted mainly by greenhouse gas emissions **stemming from human activity**
- The increase in the world's population and the improvement in its standard of living have led to a **steady increase in energy consumption**

What is our departure point?

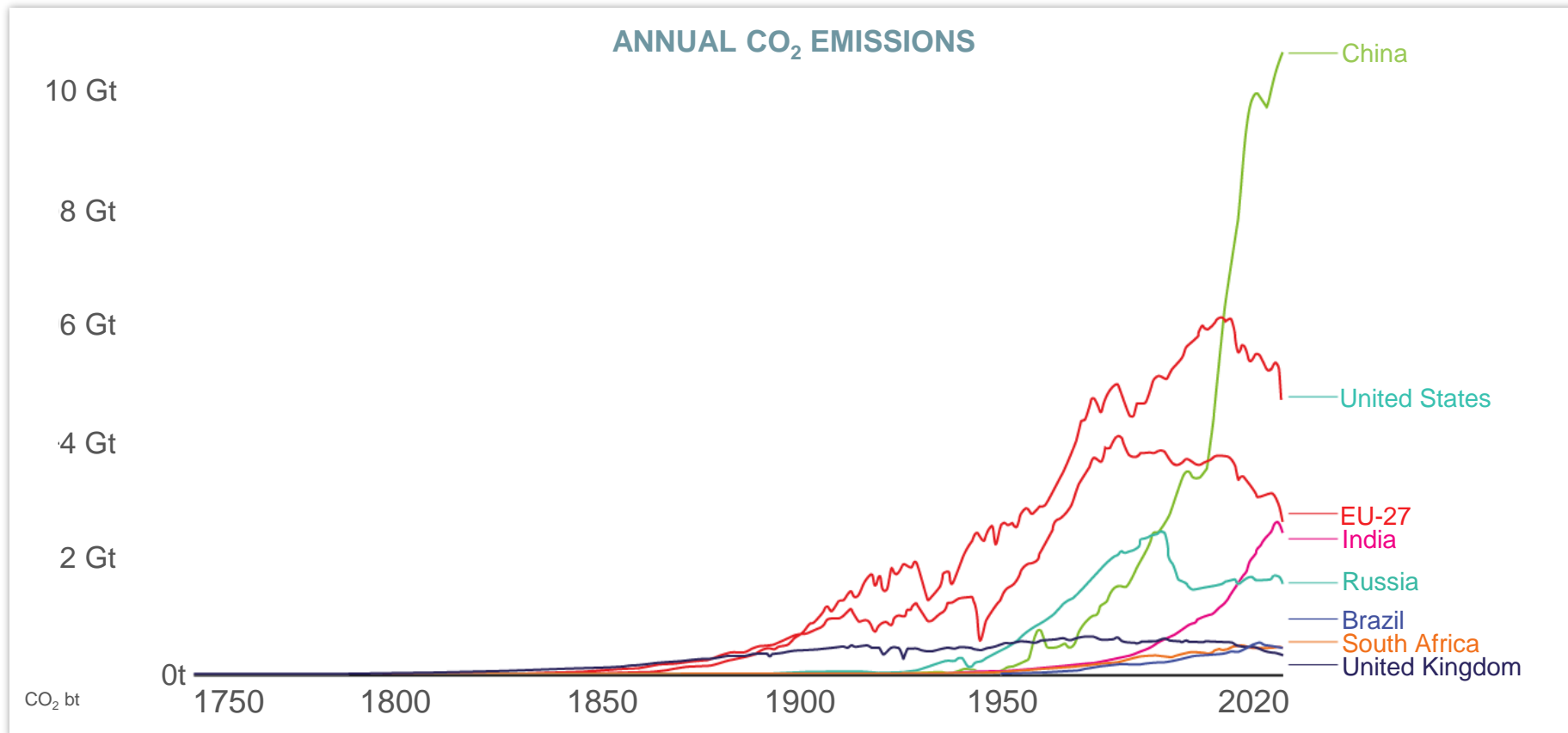


CO₂ emissions due to energy consumption



What is our departure point?

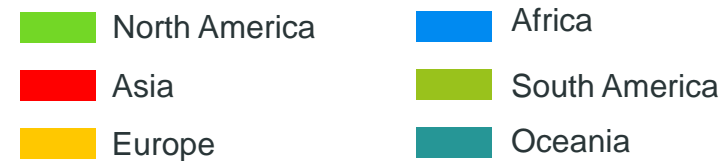
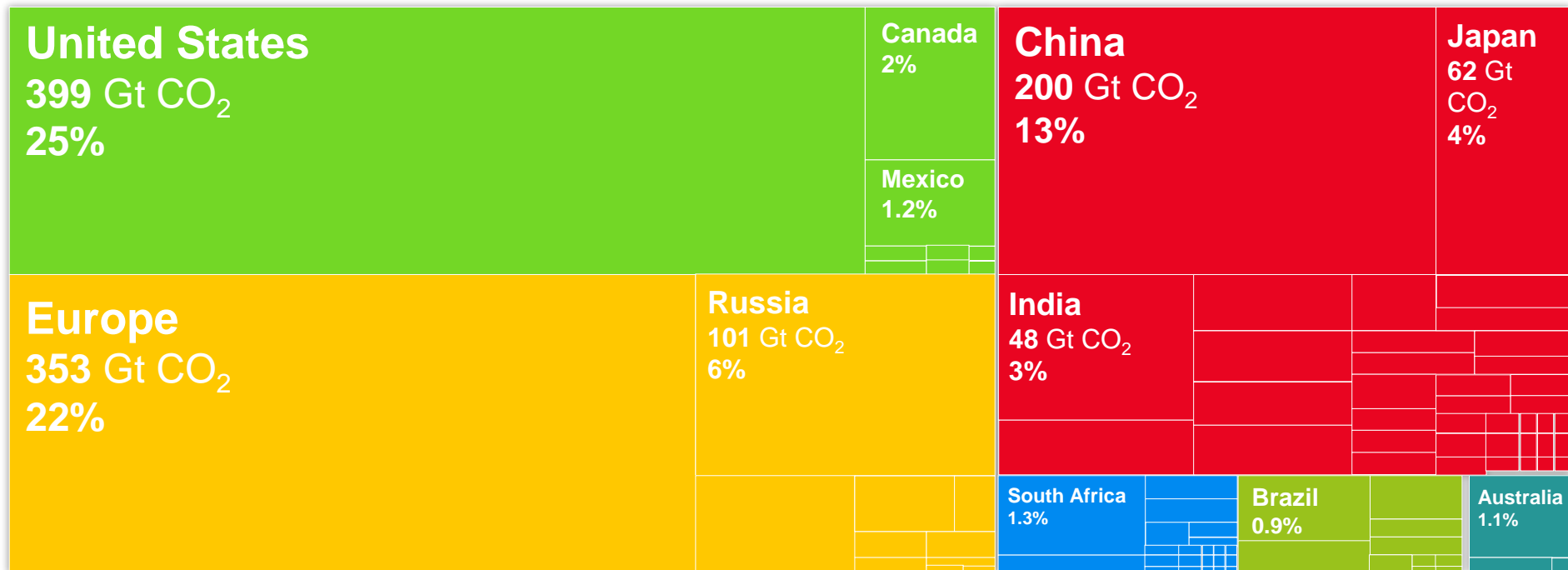
CO₂ emissions worldwide



What is our departure point?

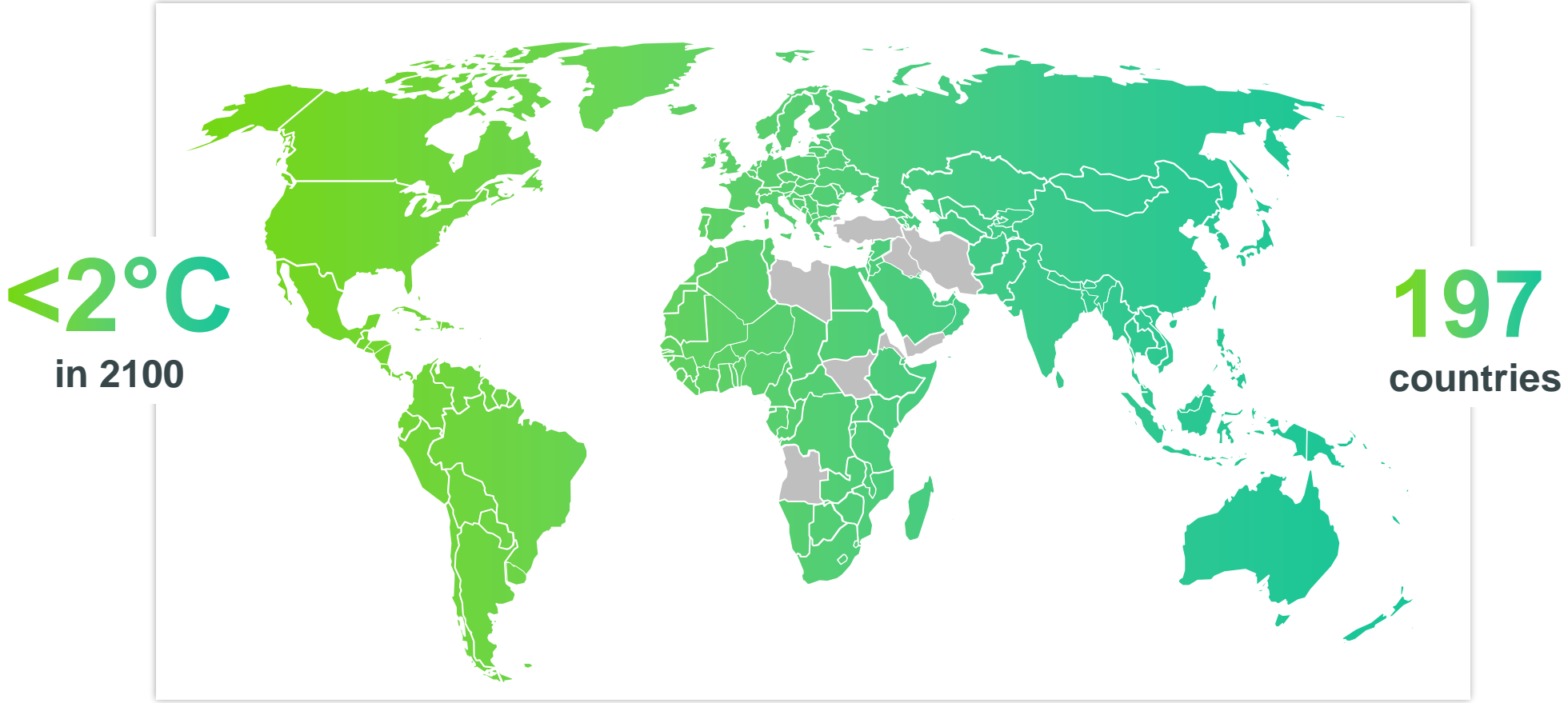


Cumulative CO₂ emissions from 1971 to 2017





State of the Paris Agreement

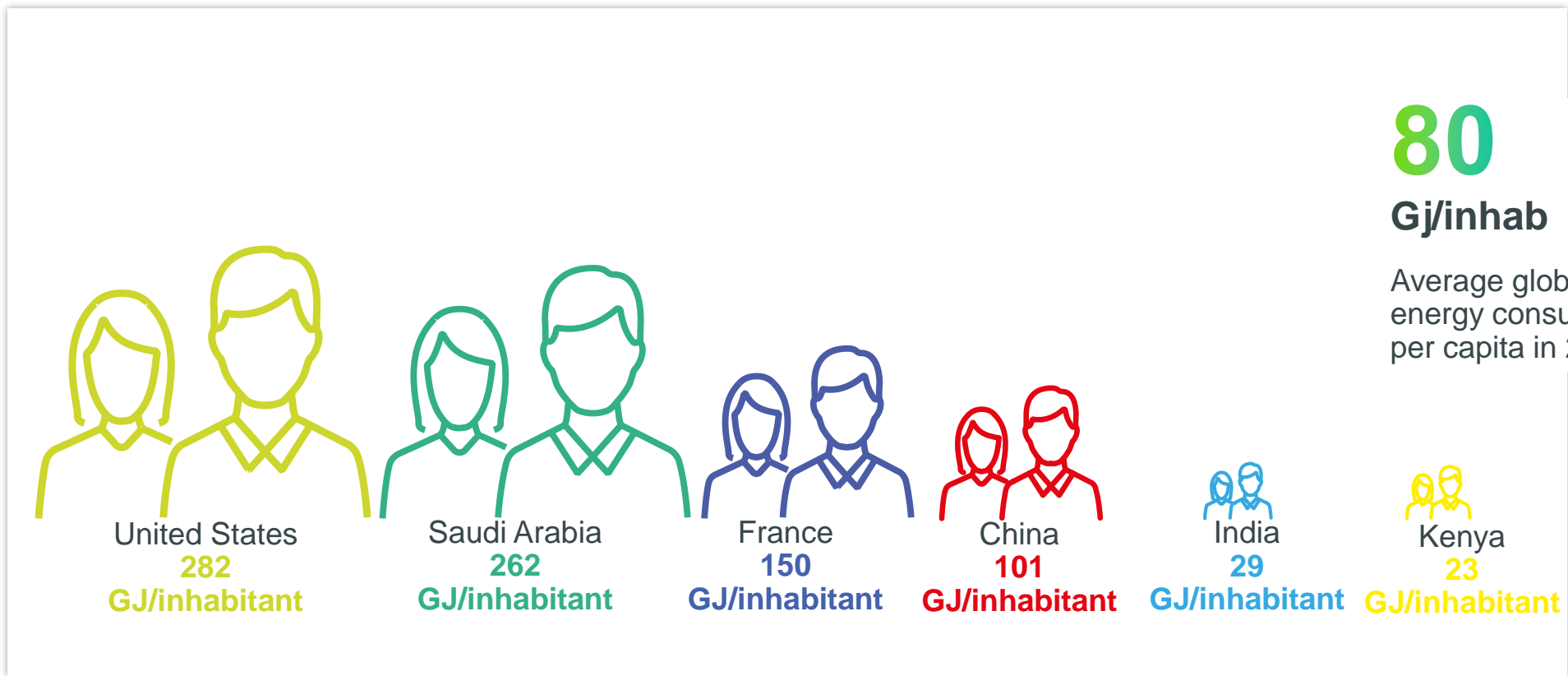


COP26 Glasgow Climate Pact

European Green Deal

Fit for 55

A contrasting situation between developed and emerging countries



80

GJ/inhab

Average global primary energy consumption per capita in 2019

Energy mix scenarios



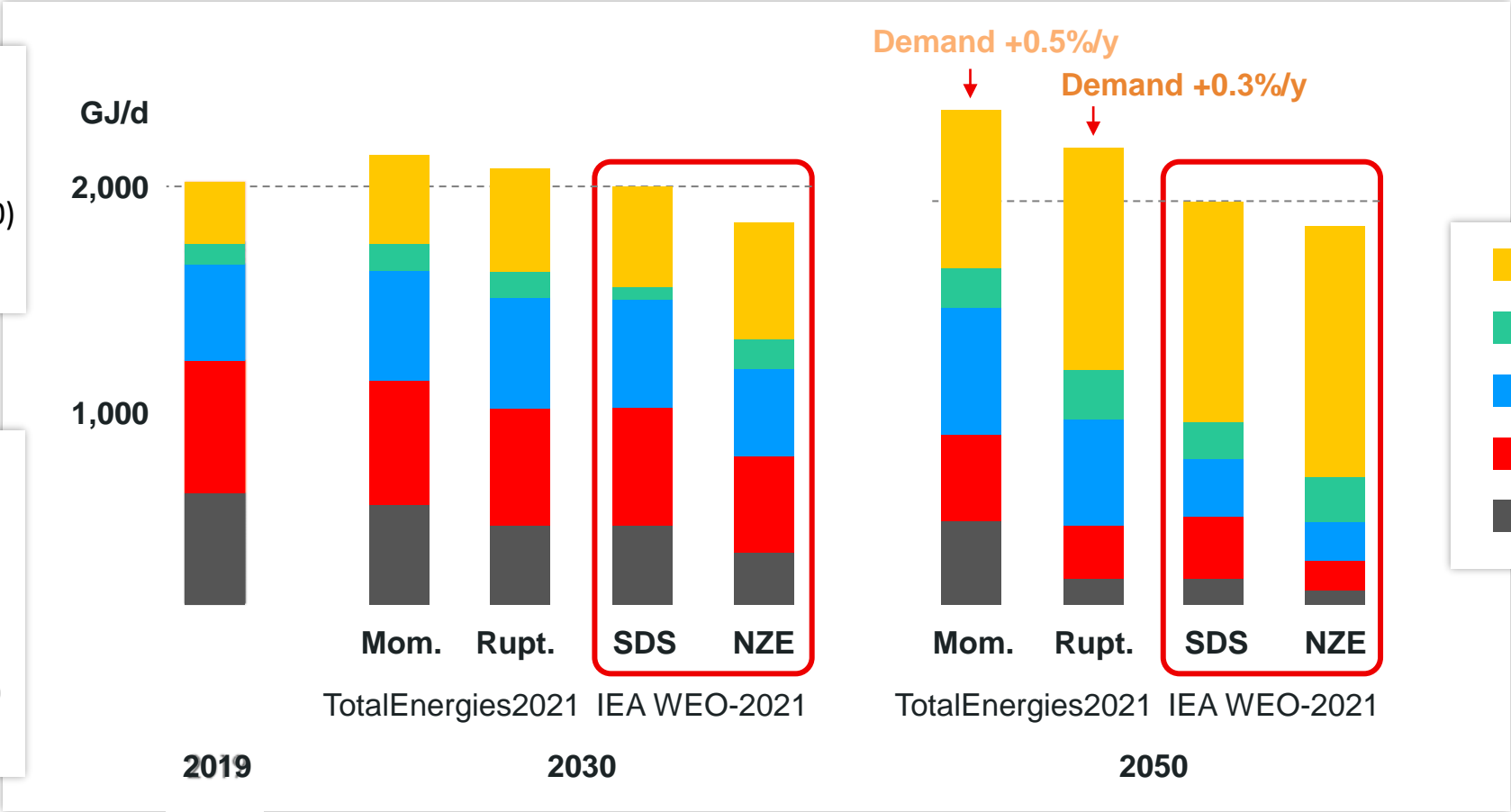
The energy mix according to TotalEnergies and the IEA

TotalEnergies

Momentum (+2,3°C in 2100)
Rupture (<2°C in 2100)

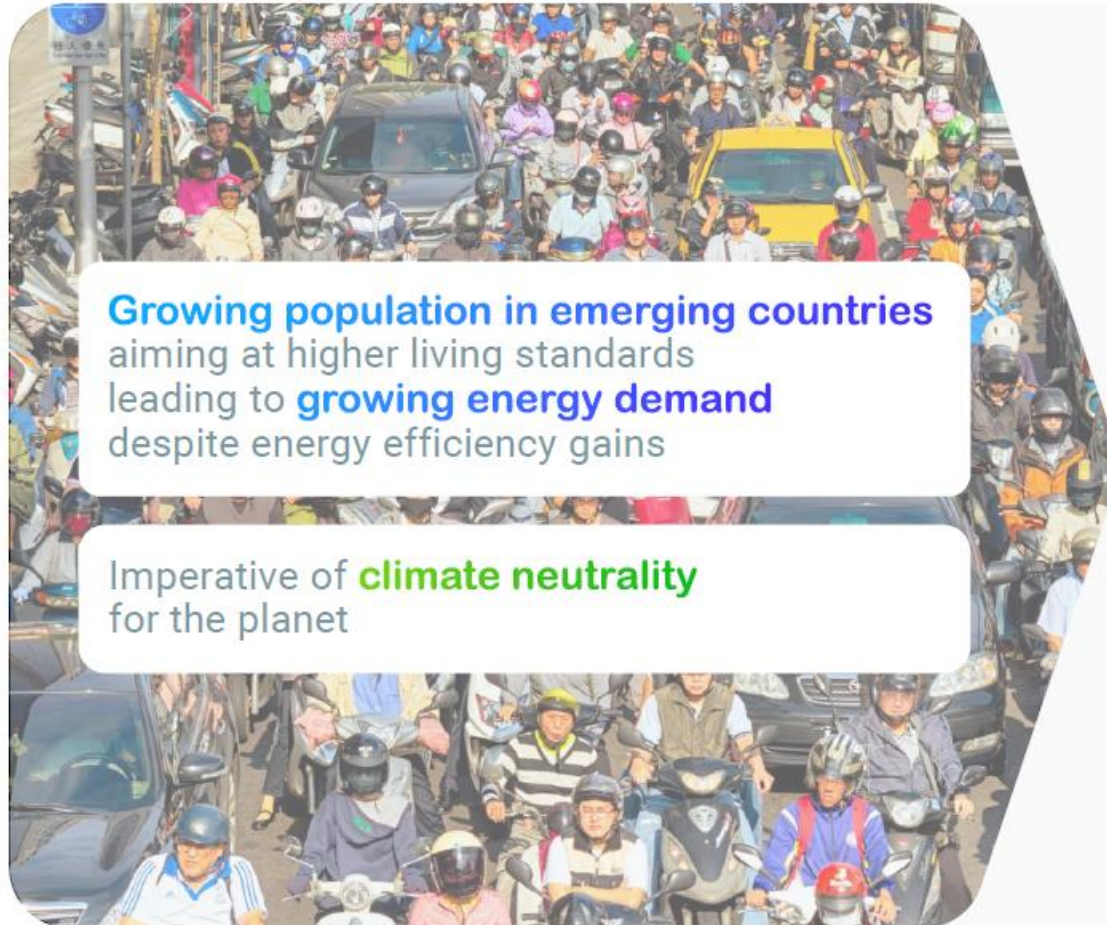
IEA International Energy Agency

Sustainable Development Scenario (SDS)
Net Zero Emissions by 2050 Scenario (NZE)



The IEA scenarios, unlike those TotalEnergies, foresee a fall in energy demand

Global trends underpinning evolution of energy markets



Growing population in emerging countries aiming at higher living standards leading to **growing energy demand** despite energy efficiency gains

Imperative of **climate neutrality** for the planet

Oil

- Acceleration of innovation to substitute oil use
- Oil demand plateau then decline from 2030+ with impact on long-term prices

Natural gas, transition fuel

- LNG driving growth

New molecules

- Biofuels, biogas, hydrogen, e-fuels

Electricity

- Growing demand further increased by Net Zero policies
- Renewables will decarbonize power generation

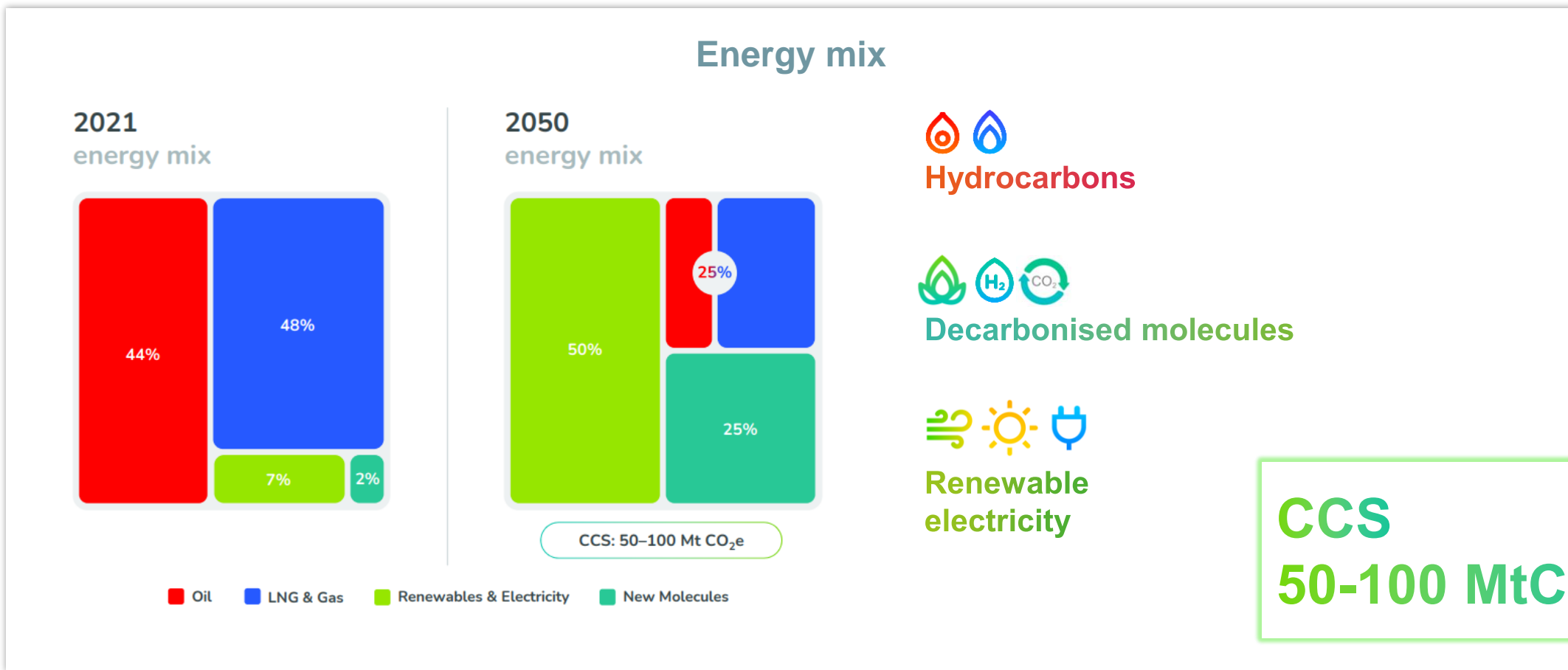
Carbon sinks

- Required to achieve Net Zero

Net Zero by 2050, our energy mix



A vision of the TotalEnergies carbon neutral energy mix by 2050



Net Zero by 2050, a vision for a Net Zero company

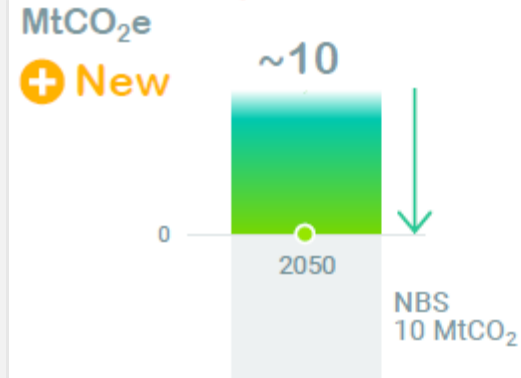


Reinventing a net zero energy system means

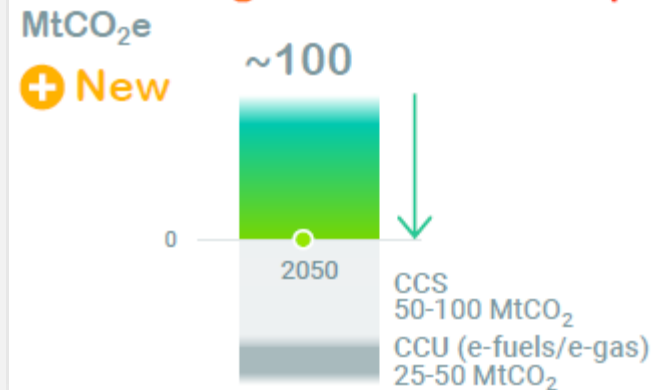
In 2050 (scope 1) :

- ✓ 50% of the energy produced by TE would be renewable electricity (500 TWh/y)
- ✓ New molecules would account for 25% of the energy produced (50 Mt/y – biogas, H2 and e-fuels)
- ✓ Only 1 Mb/day of hydrocarbons (4x less than in 2030)
- ✓ These hydrocarbons would represent around 10 Mt/y of Scope 1 emissions, which would be fully off-set by nature-based carbon sink solutions (NBS)

TotalEnergies Net zero Scope 1+2^(a)



TotalEnergies Net zero Scope 3^(b)



In 2050 (scope 3) :

These hydrocarbons would represent **Scope 3** emissions of around **100 Mt/y**. To get to net zero, we need to „eliminate“ the equivalent of 100 Mt of CO₂/y by developing :

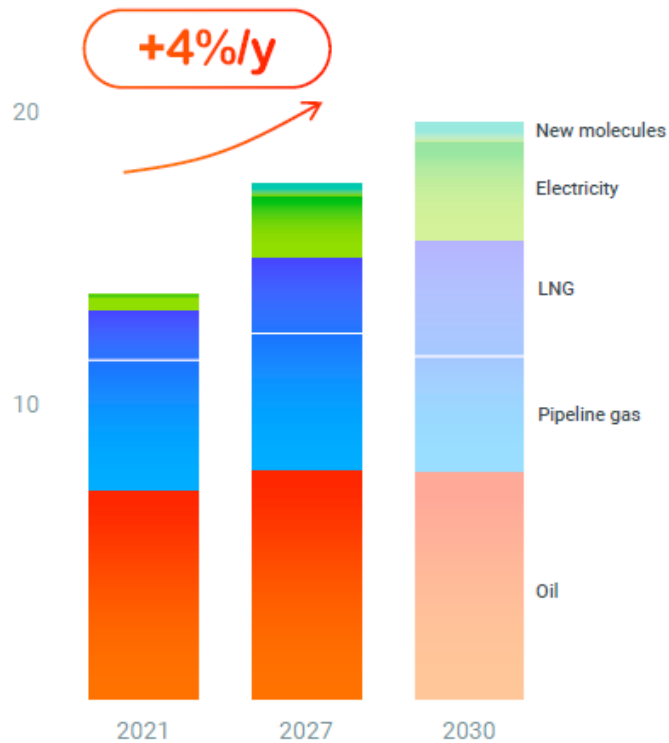
- ✓ A carbon storage service (CCS) for customers that would store 50 to 100 Mt/y of CO₂
- ✓ An industrial e-fuels activity that would avoid 25 to 50 Mt/y of CO₂

2021-2030: decade of transformation

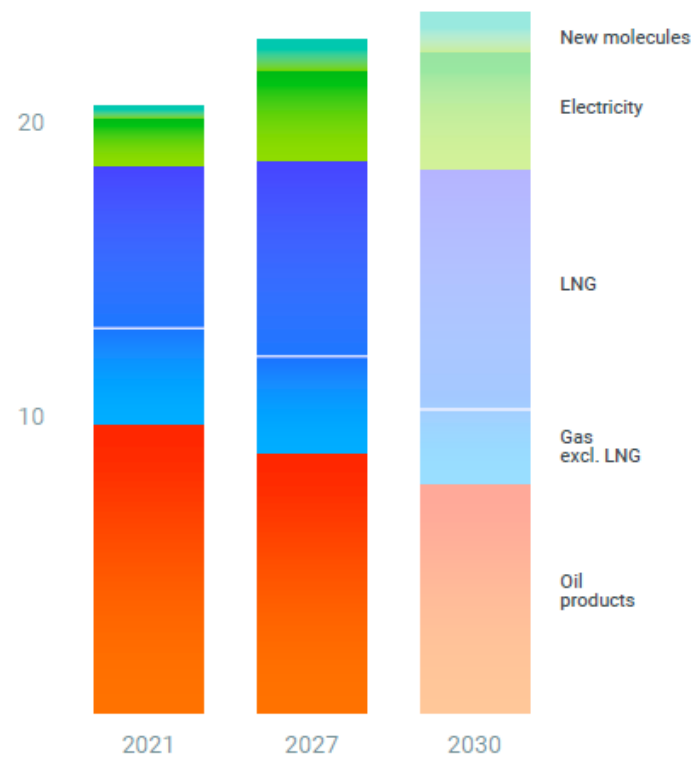


A decade of growth and transformation to build a multi-energy company

Energy production
PJ/d (excluding Russia)



Energy sales
PJ/d (excluding Russia)



02.

Transforming to reinvent energy



“ Key Takeaways ”



- 2030 target : **produce 30% more energy** compared to 2020, primarily through LNG and electricity.
- For TotalEnergies, **natural gas** is a **key energy in the transition**.
- We aim to become **one of the 5 global producers of renewable energy**.
- To achieve its objectives, we are redefining our capital allocation strategy by investing > 50% in renewables energies, LNG and Gas.

Transforming to
reinvent energy

Electricity



Electricity: becoming a leader in renewable electricity

- **Our ambition in 2050:** Energy production mix consisting of **50% renewable energy and electricity**
- **One of the Top 5 producers of renewable electricity world-wide**
- **On course for 2030:** 15% electricity sales mix, 100 GW of gross capacity

Transforming to
reinvent energy

Gas / LNG



Natural gas / LNG, a key energy in the transition

- **Our ambition 2050:** the energy mix will consist of **25% oil and gas (through LNG)**,
- **The 2030 target:** to double our LNG production
- **No. 2 world-wide private player in LNG, champion in low-carbon LNG**
- Commitment to **lower our methane emissions by 80%** by 2030

Transforming to
reinvent energy

Oil and petroleum
products



Oil and petroleum products: adapting to demand

To reduce GHG emissions due to petroleum products (Scope 3):

- **Idea 1:** decrease our low-profitability sales
- **Idea 2:** develop non-fuel sales
- **Idea 3:** increase sales of products that do not generate CO₂ in Scope 3 (bitumen, lubricants, etc.)

Decarbonised molecules

- **Our ambition in 2050: 25% of our production and sales will come from new molecules**

This means 50 million tonnes per year of biofuels, biogas, green hydrogen and e-fuels

- **On course for 2030: + biofuels, biogas**

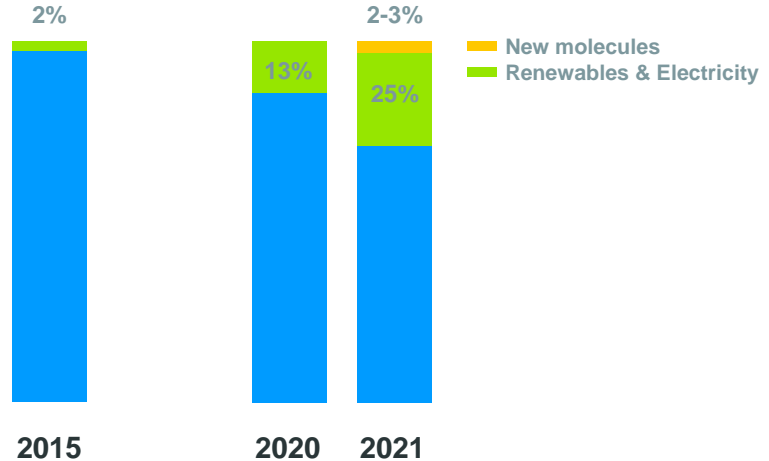
5 million tonnes per year to cut our CO2 emissions in half

Capital allocation strategy



Investing to build a sustainable multi-energy company

STRONG GROWTH IN INVESTMENTS IN ELECTRICITY AND RENEWABLES



> 50% OF INVESTMENTS RELATED TO GROWTH
33% OF CAPEX DEVOTED TO NEW ENERGIES

