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# Take on Tomorrow:

# Companies' responsibility

# Carbon Change and Clean Energy Transition



17th march 2022

### Climate Change – A call to action

 Greenhouse gas (GHG) emissions have increased considerably over the last few years with a direct impact on the increase in the planet's average temperature. This trend will continue if organizations and governments do not take an active role in reducing GHG emissions.

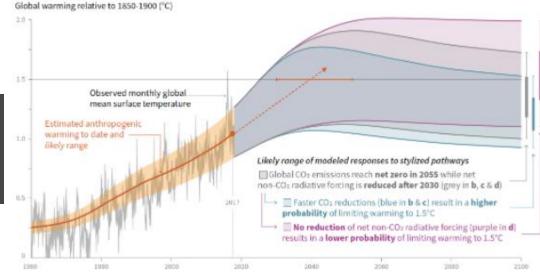
#### **Paris Agreement**

Limit the rise in the world's average temperature to well below 2°C above pre-industrial levels and strive to limit the rise to 1.5°C by 2100.

• To achieve the scenario defined in the Paris Agreement, it will only be possible through the commitment of the private sector, making a massive reduction of its GHG emissions.

#### THE TIME TO ACT IS NOW – THE PIVOTAL DECADE

 a) Observed global temperature change and modeled responses to stylized anthropogenic emission and forcing pathways



Source: IPCC Special Report on Global Warming of 1.5 °C

### **Climate Transition Drivers**

International Commitments Sustainable Development Goals Paris Agreement



- Limit the increase in global average temperature to 1.5°C compared to pre-industrial levels
- Renewable and affordable energy

EU Framework

10 - 3 h

- **European Green Deal**
- 2030 Climate Target
- Taxonomy of Sustainable Activities

- 2030: Reduction of emissions by 55%
- 2050: Carbon Neutrality

National Framework

- Carbon Neutrality Roadmap to 2050
- National Energy and Climate Plan 2030
- National Hydrogen Strategy

#### 2030

- Emissions reduction 45%-55% compared to 2005
- 47% of renewable energy in gross final energy consumption
- 35% reduction in primary energy

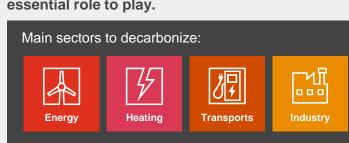
€1,017 billion is the estimated value for Portugal to achieve carbon neutrality in 2050

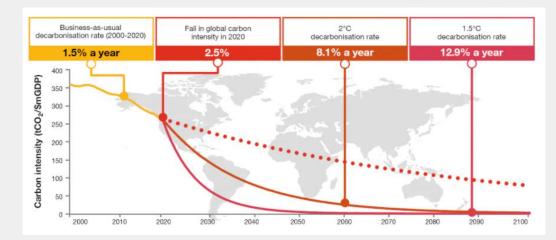
### The Net Zero Economy Index

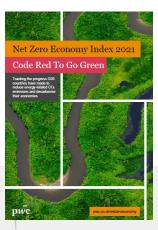
The PwC study "<u>Net Zero Economy Index</u>" concluded that the decarbonization rate of the economy in 2020 was **2.5% globally and 11.3% in Portugal**, values that are not enough, since to limit the increase in world temperature to 1.5°C compared to pre-industrial levels

To meet the ambition of the Paris Agreement, the decarbonization rate must be five times higher, that is, 12.9% per year. The energy transition must therefore accelerate, and companies have an essential role to play.









# **Carbon Neutrality in Portugal**

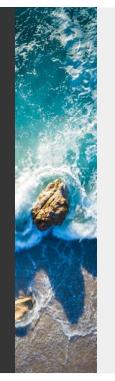


**6.3%** Decarbonization rate 2018-2019 (energy-related CO2 emissions)

**0.1%** % of global energy-related CO<sub>2</sub> emissions\*

**0.3%** % in world GDP (\$)

24% Energy consumption from renewable sources



- The Portuguese Government approved the **Roadmap for Carbon Neutrality 2050 (RNC2050)** which consolidates a participatory process of identification and analysis of trajectories for the Portuguese economy to achieve carbon neutrality in 2050. The sectors of activity included energy, transport and mobility, waste and agriculture , forests and land use.
- For the country to achieve carbon neutrality, it will be necessary to reduce GHG emissions by around 85-90% (base year 2005).
- The development of the RNC2050 was carried out in parallel with the **National Energy and Climate Plan 2021-2030 (PNEC)**. Subsequently, the **National Hydrogen Strategy** was elaborated.
- Climate Law published in December 2021.

1	Country pledges have not gone far enough	Focus now is on faster ratcheting of ambition to prevent the worst impacts of climate change: If countries meet current commitments for 2030 targets, projected warming is 2.4°C by 2100
2	The Paris Agreement 'rulebook' was finalised	Including concluding negotiations on Article 6 (carbon markets), Common Time Frames, and Transparency
3	The 'Glasgow Climate Pact' was agreed by 197 countries	Challenges countries to accelerate transition to low carbon energy and present new commitments by COP27 in Egypt
4	Non-state actors - especially businesses - were more prominent then ever	Nearly 8,000 non-state actors - including 5,235 businesses, 67 regions, 441 financial institutions, 1,039 educational institutions and 52 healthcare institutions - have committed to halving emissions by 2030 as part of the UN's "Race to Zero" campaign
5	For the first time a COP decision has explicitly targeted action on fossil fuels	The Glasgow Pact refers to the need for a "phasedown of unabated coal" and "phase-out" of "inefficient" fossil-fuel subsidies. Beyond the negotiations key announcements supporting energy transition were made.

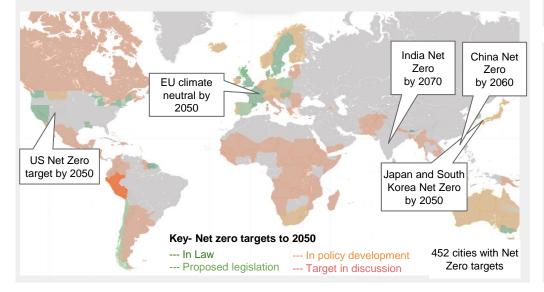
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# Country pledges have not gone far enough

90% of the global economy is now covered by net zero commitments, but...If countries meet current commitments for 2030 targets, projected warming is 2.4°C by 2100. It's not engough

#### **Net Zero targets**

- **24+ countries** have net zero targets either in law or in proposed legislation and a further 101 countries have a net zero target under discussion.
- COP 26 hosted in the UK in 2021, and an additional wave of net zero targets (national, city, company) came up.



#### Mandatory carbon pricing

- 46+ countries have mandatory carbon pricing
- Number & coverage of compliance systems is increasing rapidly.
- Potential average price of \$100+ per ton CO2e by 2030

#### **Other regulation**

- Bans, phase outs, subsidy reforms: Petrol and diesel cars sales banned from 2025: Norway; 2030: Germany, Ireland, NL; 2035: UK, France. Fossil fuel subsidy reform or tax increases in 50 countries since 2015. Germany, Spain, UK, Canada and others phasing out coal extraction.
- Mandatory climate risk disclosures: required in the UK from 2023, other countries expected to follow suit.
- Mandatory ESG requirements, covering due diligence, risk assessment and disclosures: in France, Switzerland (proposed), China and Brazil.
- EU Sustainable Finance Disclosure Regulation will require reporting on sustainability characteristics of investments.

- The Pact calls upon countries to accelerate "efforts towards the phasedown of **unabated coal power and phase-out of inefficient fossil fuel subsidies**.
- It 'urges' developed countries to double adaptation finance. Developed countries had pledged as far back as 2009 to have \$100bn per year to support developing country mitigation and adaptation in place by 2020. This target has been missed and will not be fully mobilised until 2023 (or possibly earlier).
- Countries that do not have Paris-aligned targets are invited to submit stronger near term climate targets and net zero commitments by COP27 in Egypt.
- All countries are invited to return with enhanced Nationally Determined Contributions (NDCs) in 2023.
- It establishes the 'Glasgow Dialogue' on funding for loss and damage but stopped short of agreement to establish a specific fund.

#### **Coal Phase-out:**

- 46 countries and 26 corporates signed the Global Coal to Clean Power Transition Statement.
- The Powering Past Coal Alliance committed 165 countries, cities, regions and businesses to take action to deliver on their domestic phase-out commitments.

#### **Fossil fuel financing:**

- More than 20 countries (including US, UK, Canada) signed the Statement on International Public Support for the Clean Energy Transition, committing to end international direct public finance in all unabated fossil fuels by 2022 (i.e. coal, oil and gas).
- Major international banks (including HSBC, Fidelity, Ethos) committed to end all international public financing of new unabated coal power plants by the end of 2021.

#### **Just Transition Financing:**

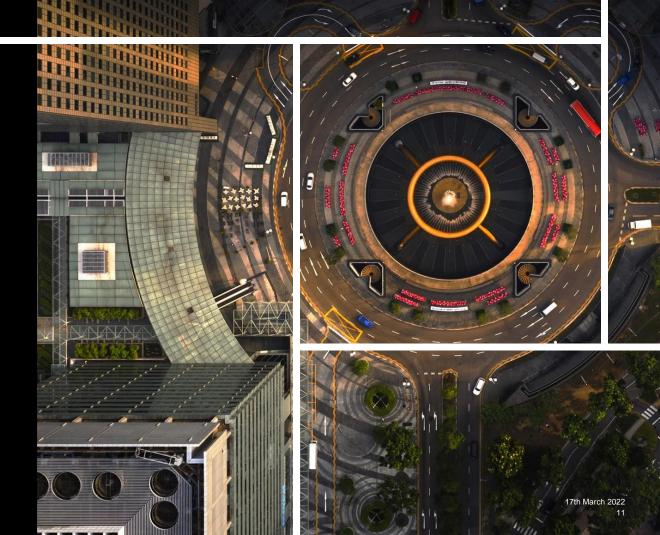
• Mobilisation of funding for South Africa, India, Indonesia, Philippines, to accelerate the shift away from coal, invest in renewables and protect fossil fuel-reliant communities.

#### **Beyond Oil and Gas Alliance:**

· Costa Rica and Denmark officially launched the "Beyond Oil and Gas Alliance", that addresses the phasing out oil and gas production

	6	Finance is being redirected at scale	The Glasgow Financial Alliance for Net Zero (GFANZ) announced commitments from 450 financial institutions responsible for \$130 trillion AUM, to align their funding with net zero by 2050 and set near-term science-based targets aligned with 1.5°C.
	7	Nature featured high on the agenda as both a solution to climate change and also as a distinct crisis	The Glasgow Leaders' Declaration on Forests and Land Use was made with world leaders committing to end and reverse deforestation by 2030. It is supported by 140 countries plus the European Commission, and covers just under 91% of forests.
	8	The beginning of the end of the internal combustion engine?	The Glasgow Declaration on the Acceleration of the transition to Zero-Emission Vehicles was announced, setting out plans for every new car and van sold by 2040 to be zero- emission (by 2035 in leading countries) (Germany, China and the US - are yet to sign), however, GM, Ford, and Mercedes have joined the pledge meaning 1 in every 3 cars sold will be a zero-emission vehicle
	9	Methane arrives on the scene	The Global Methane Pledge led by the United States and the European Union, seeks to curb methane emissions by 30% by 2030, relative to 2020 levels. Over 100 countries representing 70% of the global economy and nearly half of anthropogenic methane emissions have signed the pledge.
a	10	Global common approach to ESG related disclosure standards	Creation of the International Sustainability Standards Board (ISSB) by the IFRS Foundation supported by 36 countries. This aims to develop a global baseline of sustainability disclosure standards to enable greater comparability between companies' sustainability impacts.

PwC is committed to supporting its clients in formulating Net Zero strategies and implementing actions to reduce emissions.



# What do the different carbon targets mean?

#### Growing level of ambition

#### Neutrality

**Science-based target (SBT)** 

#### **Net Zero**

Achieve neutrality by purchasing equivalent carbon credits:

- No GHG reduction targets required
- Purchase of carbon credits for unregulated offsetting
- No scope or timeline imposed

Reduction targets aligned with science. Does not use compensation to meet reduction targets.

- Mostly operational emissions and some material emissions from the value chain (e.g. investment emissions in the case of the financial sector)
- The duration of the goals is 5 to 15 years
- Sets annual reductions in line with the 1.5°C target
- The targets are validated by an independent body - the Science Based Targets initiative

SBT reduction (including value chain) + offset (or removal, when technology allows)

- For investments, it also includes the value chain as well as products and services
- Specific mitigation technology/offsets
  used to reach Net Zero before 2050
- Standard published in 2021

# Net Zero action requires business transformation





#### **Climate Risk and Impact Baselining**

Identifying and prioritising climate risks and opportunities, understanding current state of performance against peers, and assessing the value implications and change initiatives needed to mitigate climate risks.



#### Net Zero Strategy development

Understanding and evaluating the strategic sustainability issues for your business, assessing the business case for change and sustainable investments and developing and implementing business strategies which have sustainable development issues at the core.



#### **Organisational Transformation**

Alignment of the organisations operating model to the net zero strategy will enable your focus on the priority areas such as investment decision making, people and talent development, supply chain management, product and service design, R&D investment, infrastructure design and investment and customer experience to deliver net zero.



#### Transparency and Reporting

Transparency in internal and external measurement and reporting is an increasingly important facet to businesses being able to attract and retain responsible investment as well as for managing the reputation of the business.





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