
Berlin 1995
UN Convention on
Climate Change
Conference
of the Parties


Nations Unies
Conférence sur les Changements Climatiques 2015
COP21/CMP11
Paris, France
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Paris France
SECRETAIRE EXECUTIVE CCNUCC
PRESIDENT
SECRETAIRE
Arnaud Bouissou - MEDDE / SG COP21

COP21: The key points of the Paris Agreement

COP21 or the 21st Conference of Parties led to a new international climate agreement, the Paris Agreement, which applies in every country. It aims to limit global warming to 1.5-2°C compared to pre-industrial levels, in line with the recommendations of the Intergovernmental Panel on Climate Change (IPCC).
This agreement, which entered into force on 4 November 2016, is historic due to its universality (only Iran, Libya and Yemen have not ratified it) and the strength of the commitments and objectives it includes.

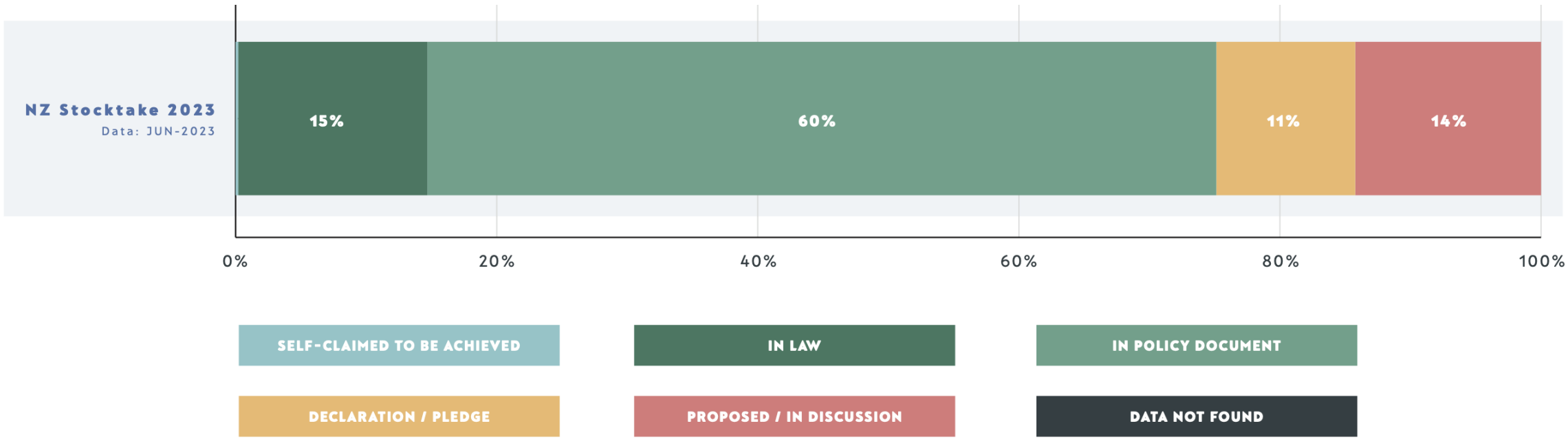
As host and chair of COP21, France committed to supporting a multilateral negotiations process and listening to all stakeholders to reach an agreement that is:

- universal and legally binding,
- fair and differentiated,
- sustainable and dynamic.

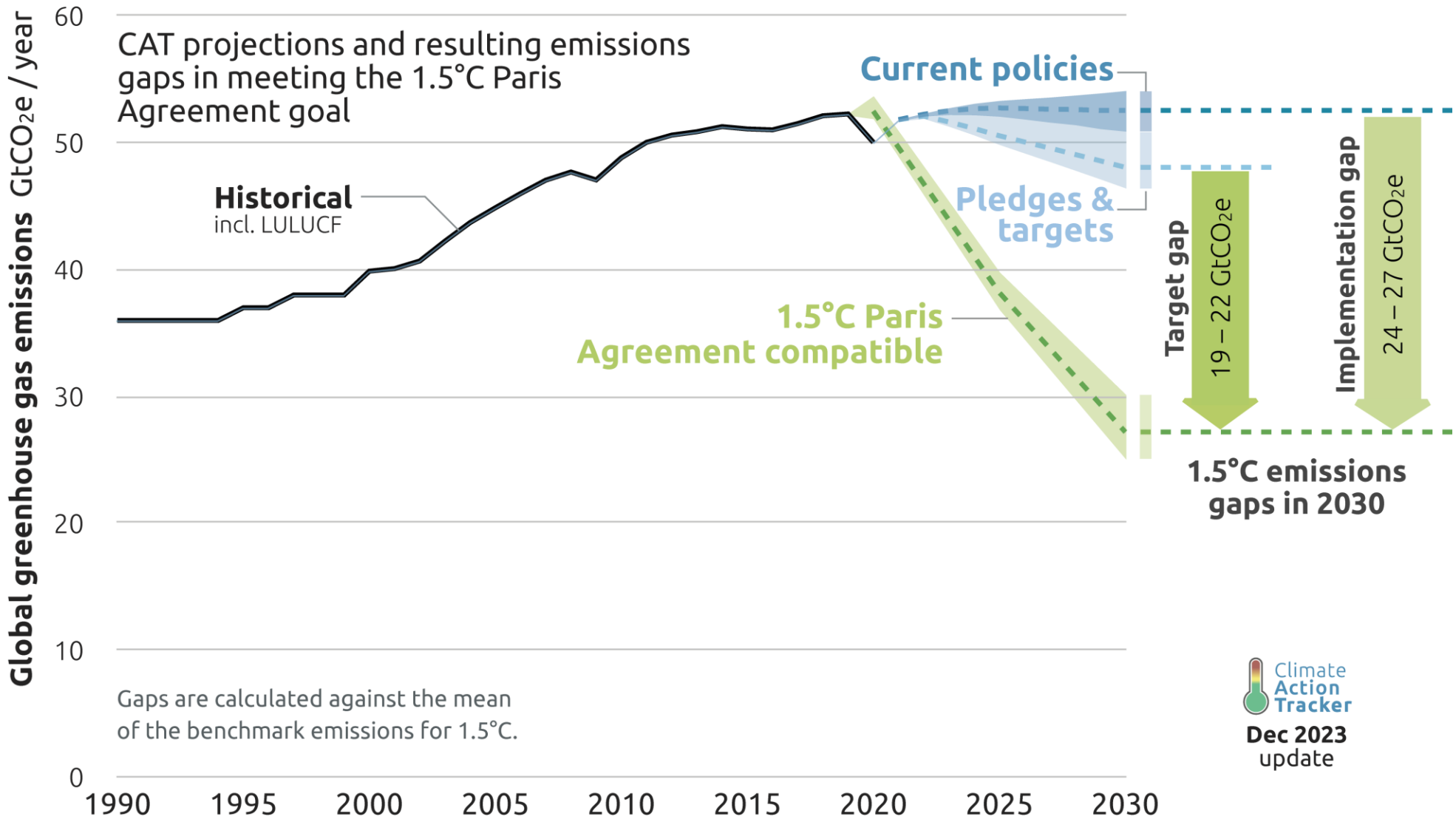
https://www.diplomatie.gouv.fr/en/french-foreign-policy/climate-and-environment/the-fight-against-climate-change/2015-paris-climate-conference-cop21/cop21-the-paris-agreement-in-four-key-points/

COUNTRIES: NET ZERO TARGET STATUS

Covering all parties to the UNFCCC (including the EU) and Taiwan. Percentages by emissions



2030 EMISSIONS GAPS



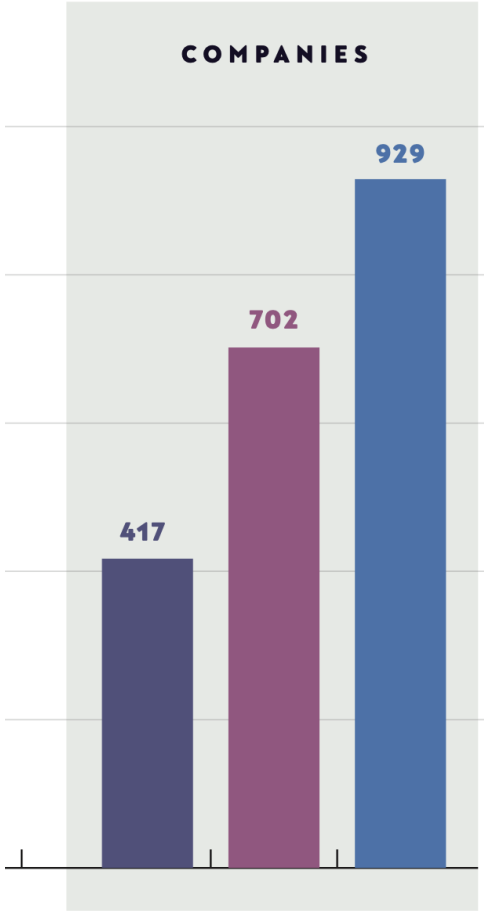
Climate Action Tracker

Dec 2023 update

Climate Action Tracker

Responsible Capitalism: Corporate Governance

Corporate Net-Zero targets.



Among the largest 2,000 publicly-listed companies in the world.

Responsible Business
Responsible Investment
Responsible Banking and Insurance

Responsible here means for boards of directors to adopt a business model and strategy that is aligned with the Paris goal of “limiting global warming to 1.5-2°C compared to pre-industrial levels, in line with the recommendations of the Intergovernmental Panel on Climate Change (IPCC)”.

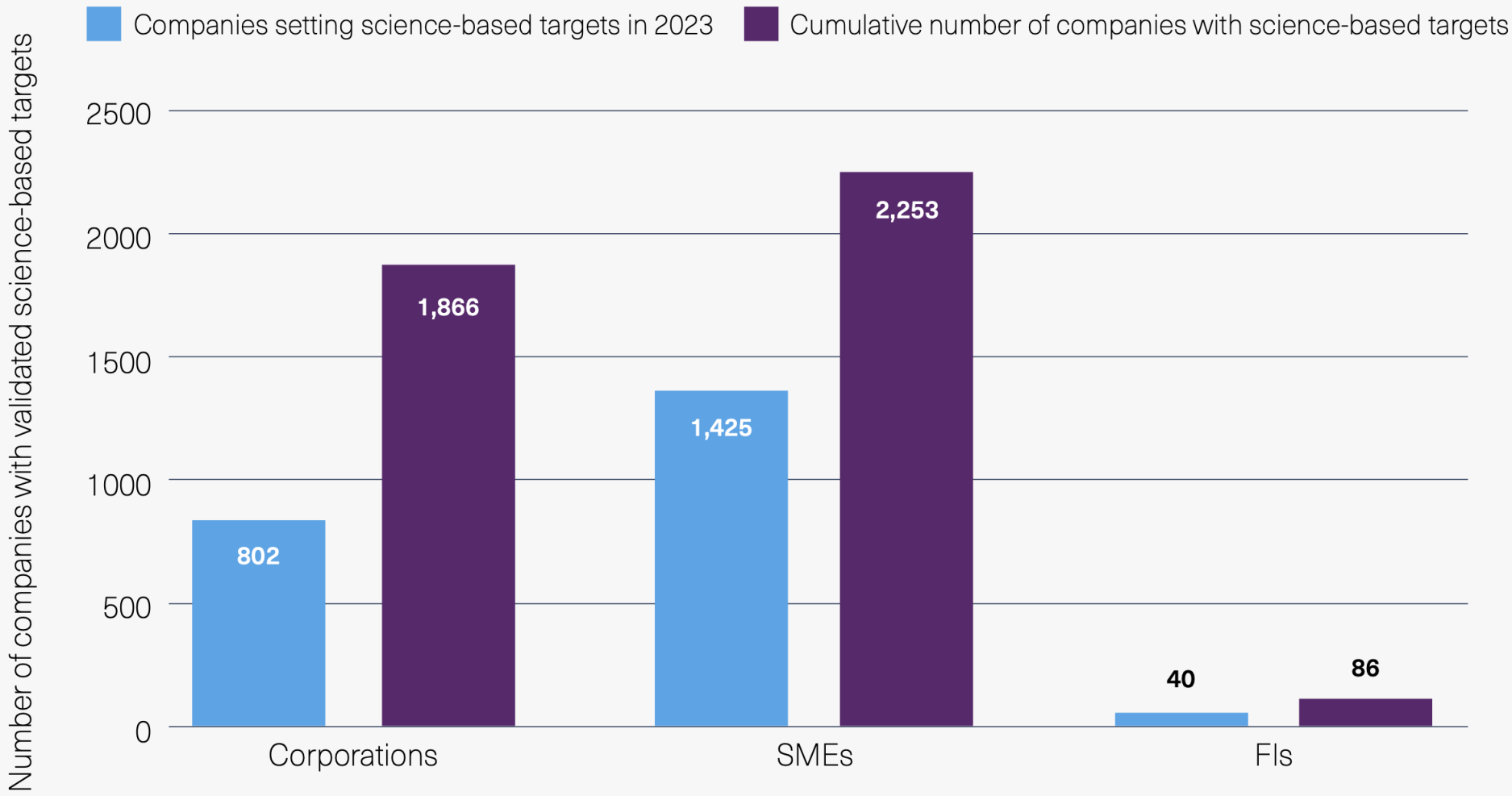
Black et al., 2021
Data: DEC-2020

Net Zero Stocktake 2022
Data: JUN-2022

Net Zero Stocktake 2023
Data: JUN-2023

SCIENCE BASED TARGETS

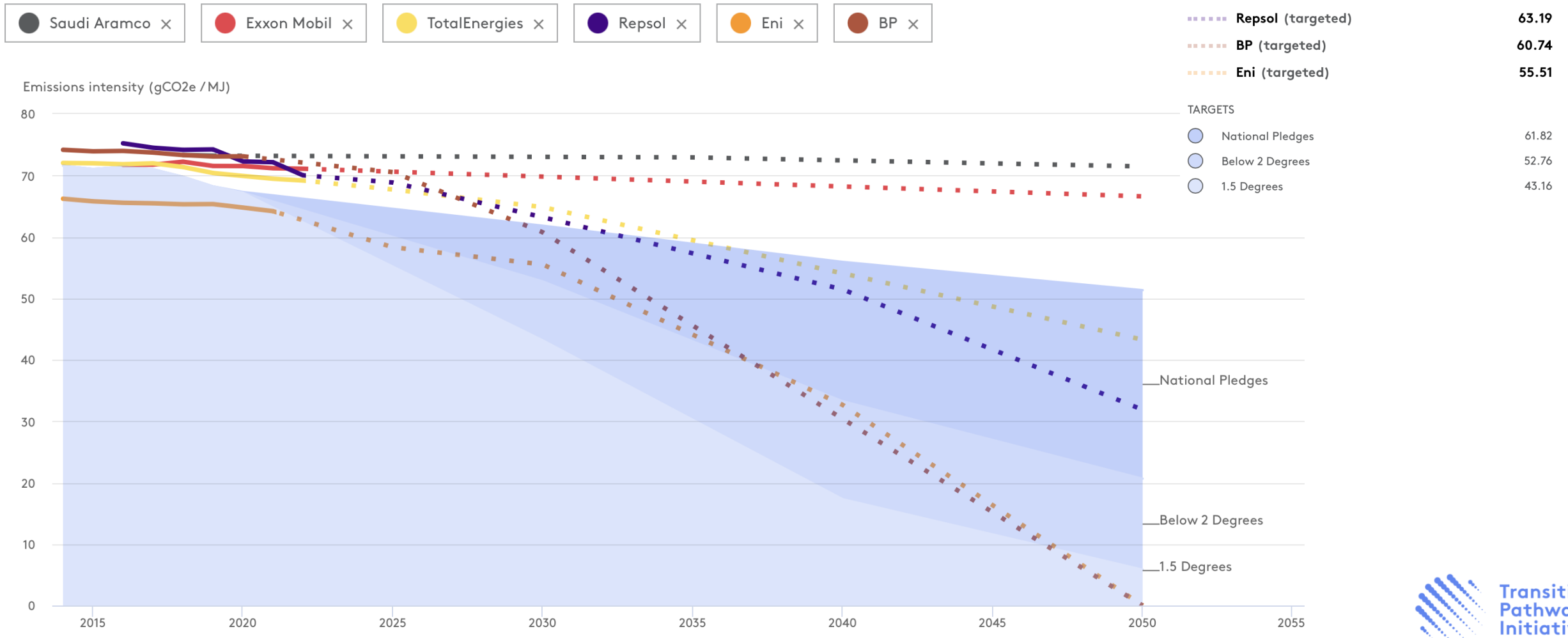
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION



https://sciencebasedtargets.org/resources/files/SBTiMonitoringReport2023.pdf

Corporate Pledges: Transition Pathway Initiative (TPI)

Carbon Performance: Oil & Gas



Emissions intensity (gCO2e / MJ)

2030	Emissions intensity (gCO2e / MJ)
Saudi Aramco (targeted)	73.02
Exxon Mobil (targeted)	69.80
TotalEnergies (targeted)	64.83
Repsol (targeted)	63.19
BP (targeted)	60.74
Eni (targeted)	55.51

TARGETS

National Pledges	61.82
Below 2 Degrees	52.76
1.5 Degrees	43.16

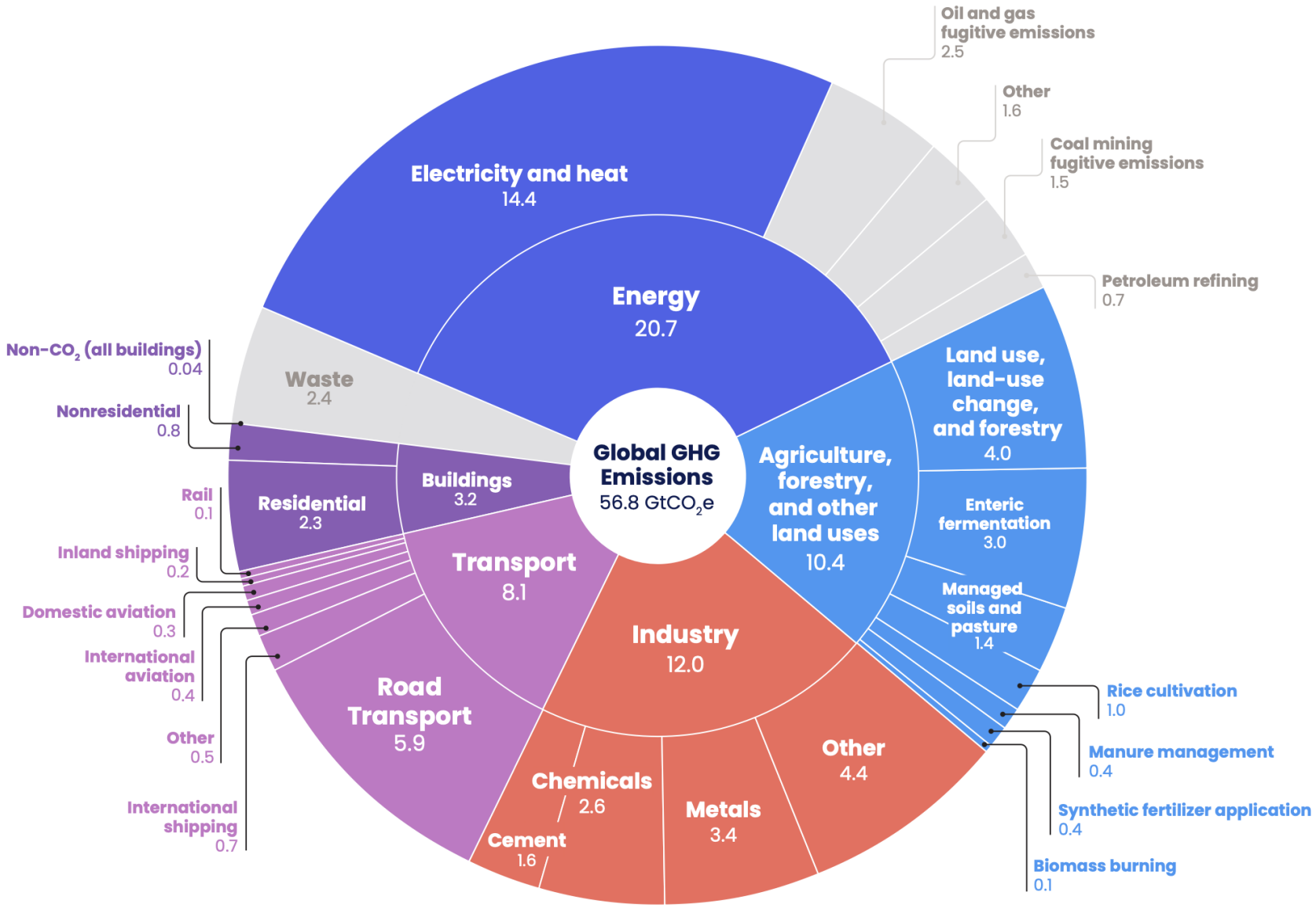
Transition Pathway Initiative

Hosted by:

LSE The London School of Economics and Political Science

Grantham Research Institute on Climate Change and the Environment

Global net anthropogenic GHG emissions by sector in 2021

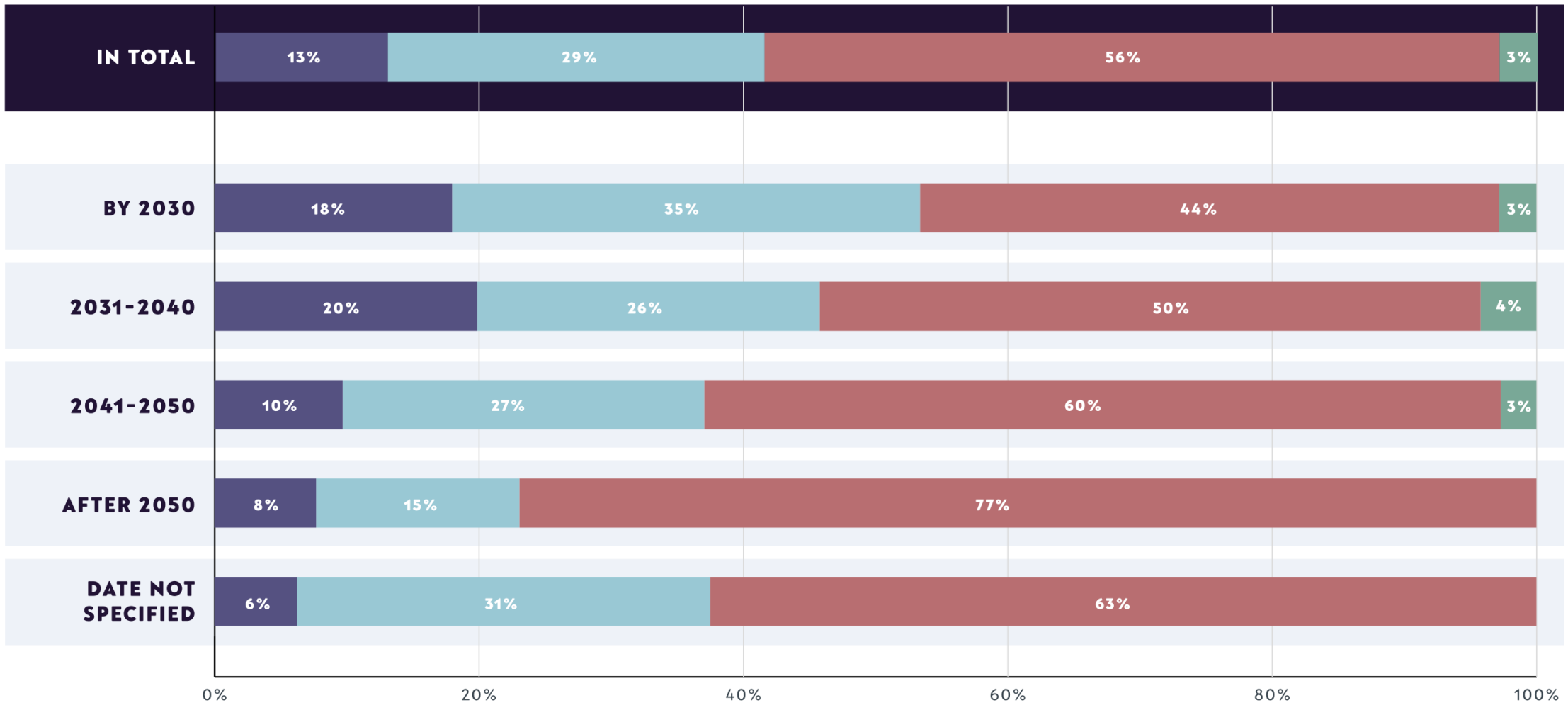


Notes: CO2 = carbon dioxide; GHG = greenhouse gas; GtCO2e = gigatonnes of carbon dioxide equivalent. Note that sectors in grey are excluded from this report.
Sources: Minx et al. (2021); European Commission and JRC (2022)

Climate Action Tracker

COMPANIES: USE OF OFFSET CREDITS

Use of offset credits across those companies with net zero targets, and broken up according to end target year



This year's proxy season has officially begun. Discover the latest flagged votes and follow updates here.

Climate Action 100+

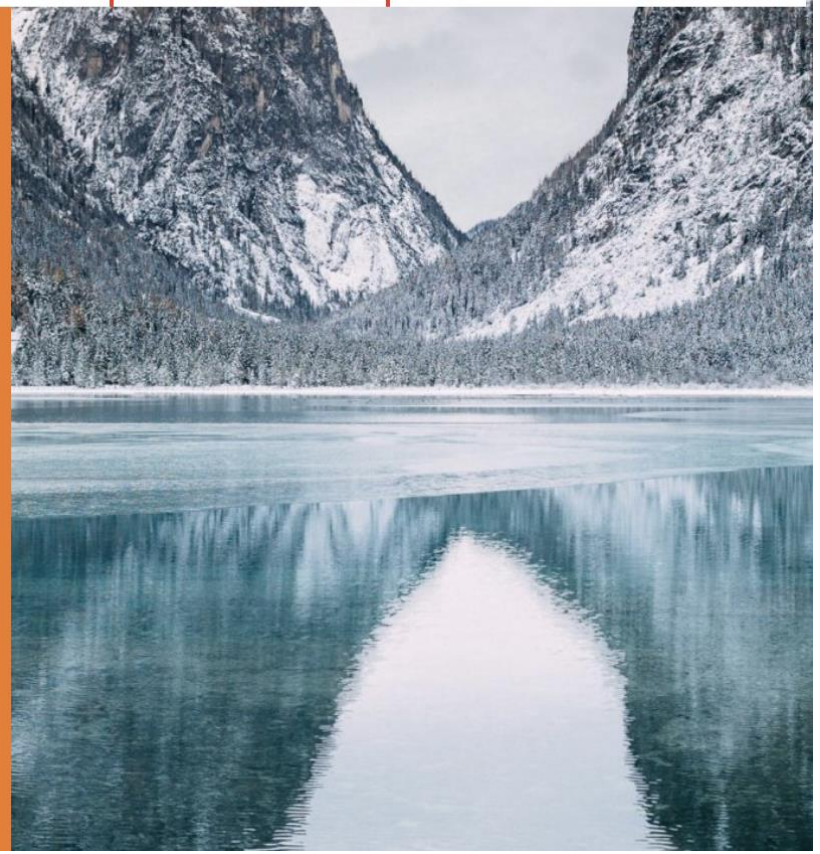
NEWS ABOUT CLIMATE ACTION 100+ JOIN CONTACT SIGNATORIES' LOGIN

THE THREE GOALS APPROACH WHO'S INVOLVED PROGRESS NET ZERO COMPANY BENCHMARK

PROGRESS UPDATE

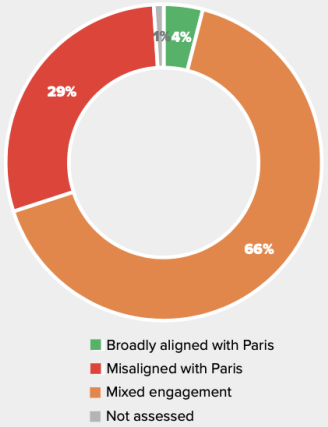
Climate Action 100+ tracks the progress of focus companies against a number of key indicators through regular progress reporting and benchmarking. Annual progress updates also provide key information about the evolution and operation of Climate Action 100+.

Download the 2023 update



CA100+ 2023 Alignment Assessment

Climate Policy Engagement Alignment
(InfluenceMap)

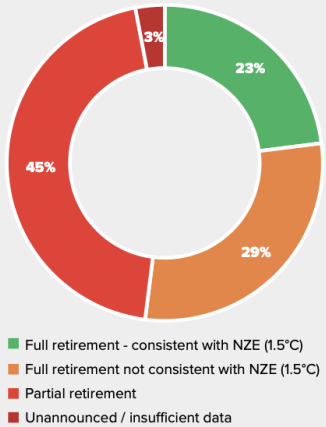


Capital Allocation Alignment for Automotive, Aviation, Cement, Electric Utilities & Steel Sectors
(RMI)

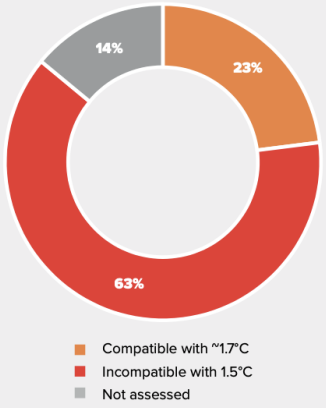
Electric utilities	**1** company **aligned** with 1.5°C and **30** companies **misaligned**
Autos	**2** companies **aligned** and **10** companies **misaligned** with 1.5°C
Steel	**2** companies **approaching** and **5** companies a **moderate distance** to being aligned with 1.5°C
Cement	All **11** companies a **significant distance** from 1.5°C
Aviation	All **5** airlines a **significant distance** to being aligned with a Beyond 2 Degrees scenario

Capital Allocation Alignment for Utilities and Oil & Gas
(Carbon Tracker)

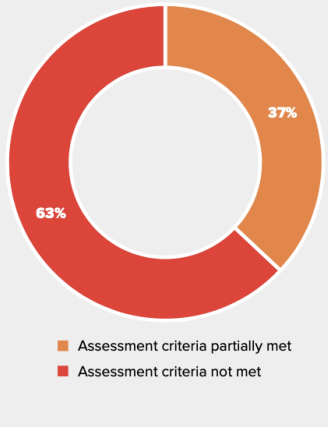
Electric Utilities: Coal Phase-out



Oil & Gas: Future CapEx Alignment with 1.5°C



Climate Accounting & Audit
(Carbon Tracker)



Net-Zero Alignment: Conditional Divestment Commitment

Disinvestment Roadmap for Utilities*

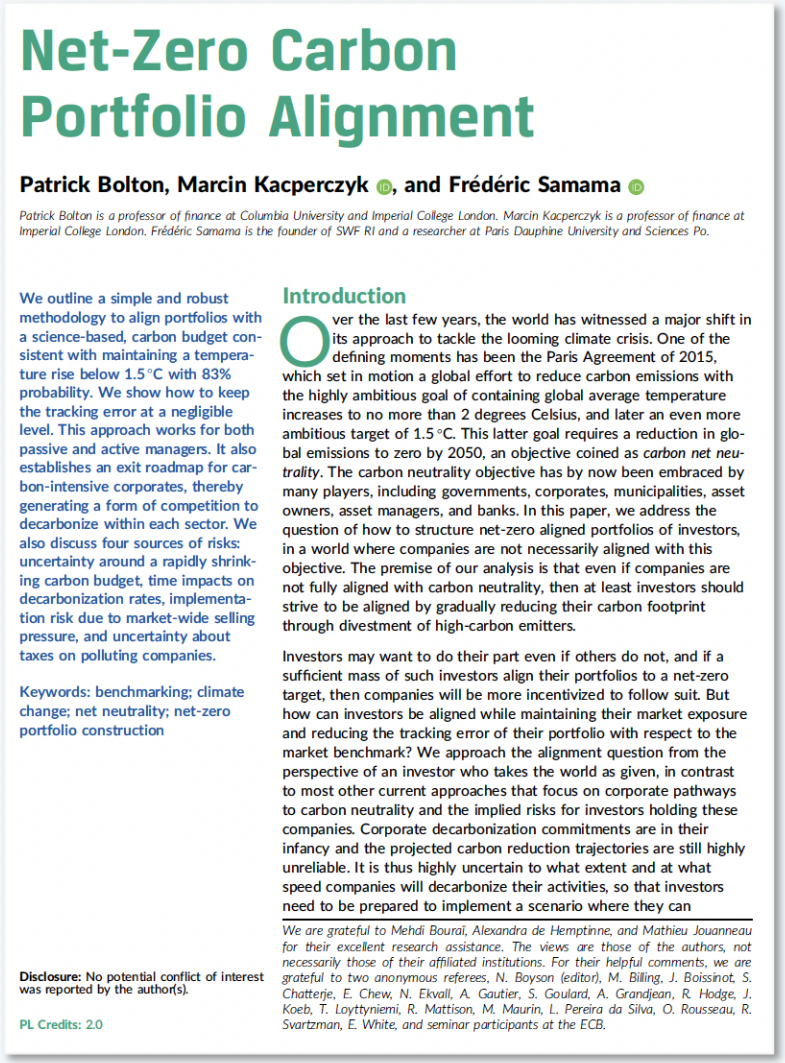
			NATURGY ENERGY GROUP SA												UNITED UTILITIES GROUP
			ENGIE												ORSTED A/S
			FORTUM OYJ												SEVERN TRENT PLC
														TERNA RETE ELETTRICA NAZIONALE SP.	ENAGAS
VEOLIA ENVIRONNEMI	RWE	ENDESA	EDP ENERGIAS DE Portugal	SUEZ	EDF	SSE	ENEL	E.ON	BERDROL/	NATIONAL GRID	ELIA GROUP	VERBUND	RED ELECTRICA CORPORACION		SNAM SPA
2021	2022	2023	2024	2025	2026	2027	2028	2032	2035	2036	2037	2041	2044		2049

Source: Bolton *et al.* 2022

Disinvestment Roadmap for Energy*

		TENARIS							KONINKLIJKE VOPAK
OMV AG	REPSOL	ENI	GALP ENERGIA SGPS	BP	EQUINOR	ROYAL DUTCH SHELL	TOTALENERGIES	NESTE OYJ	LUNDIN ENERGY
2021	2022	2023	2024	2030	2031	2035	2039	2047	2049

Source: Bolton *et al.* 2022



Net-Zero Carbon Portfolio Alignment

Patrick Bolton, Marcin Kacperczyk, and Frédéric Samama

Patrick Bolton is a professor of finance at Columbia University and Imperial College London. Marcin Kacperczyk is a professor of finance at Imperial College London. Frédéric Samama is the founder of SWF RI and a researcher at Paris Dauphine University and Sciences Po.

We outline a simple and robust methodology to align portfolios with a science-based, carbon budget consistent with maintaining a temperature rise below 1.5 °C with 83% probability. We show how to keep the tracking error at a negligible level. This approach works for both passive and active managers. It also establishes an exit roadmap for carbon-intensive corporates, thereby generating a form of competition to decarbonize within each sector. We also discuss four sources of risks: uncertainty around a rapidly shrinking carbon budget, time impacts on decarbonization rates, implementation risk due to market-wide selling pressure, and uncertainty about taxes on polluting companies.

Keywords: benchmarking; climate change; net neutrality; net-zero portfolio construction

Introduction

Over the last few years, the world has witnessed a major shift in its approach to tackle the looming climate crisis. One of the defining moments has been the Paris Agreement of 2015, which set in motion a global effort to reduce carbon emissions with the highly ambitious goal of containing global average temperature increases to no more than 2 degrees Celsius, and later an even more ambitious target of 1.5 °C. This latter goal requires a reduction in global emissions to zero by 2050, an objective coined as *carbon net neutrality*. The carbon neutrality objective has by now been embraced by many players, including governments, corporates, municipalities, asset owners, asset managers, and banks. In this paper, we address the question of how to structure net-zero aligned portfolios of investors, in a world where companies are not necessarily aligned with this objective. The premise of our analysis is that even if companies are not fully aligned with carbon neutrality, then at least investors should strive to be aligned by gradually reducing their carbon footprint through divestment of high-carbon emitters.

Investors may want to do their part even if others do not, and if a sufficient mass of such investors align their portfolios to a net-zero target, then companies will be more incentivized to follow suit. But how can investors be aligned while maintaining their market exposure and reducing the tracking error of their portfolio with respect to the market benchmark? We approach the alignment question from the perspective of an investor who takes the world as given, in contrast to most other current approaches that focus on corporate pathways to carbon neutrality and the implied risks for investors holding these companies. Corporate decarbonization commitments are in their infancy and the projected carbon reduction trajectories are still highly unreliable. It is thus highly uncertain to what extent and at what speed companies will decarbonize their activities, so that investors need to be prepared to implement a scenario where they can

We are grateful to Mehdi Bouraï, Alexandra de Hemptinne, and Mathieu Jouanneau for their excellent research assistance. The views are those of the authors, not necessarily those of their affiliated institutions. For their helpful comments, we are grateful to two anonymous referees, N. Boyson (editor), M. Billing, J. Boissinot, S. Chatterje, E. Chew, N. Ekvall, A. Gautier, S. Goulard, A. Grandjean, R. Hodge, J. Koeb, T. Loyttyniemi, R. Mattison, M. Maurin, L. Pereira da Silva, O. Rousseau, R. Svartzman, E. White, and seminar participants at the ECB.

Disclosure: No potential conflict of interest was reported by the author(s).

PL Credits: 2.0

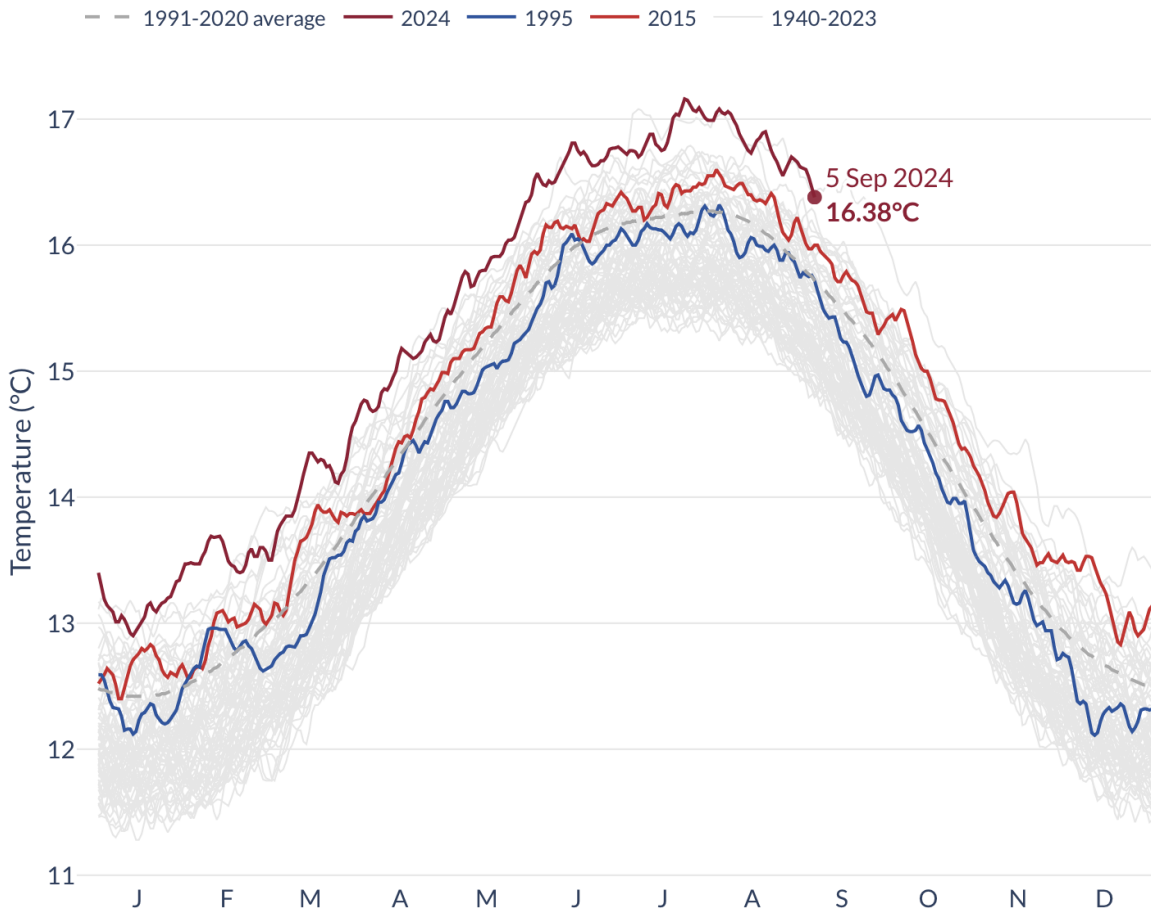
* with constant parameters including emissions


The New York Times
Elon Musk's Plan to Put a Million Earthlings on Mars in 20 Years
SpaceX employees are working on designs for a Martian city, including dome habitats and spacesuits, and researching whether humans can procreate off Earth. Mr. Musk has volunteered his sperm.

Global surface air temperature

Daily average • Data ERA5

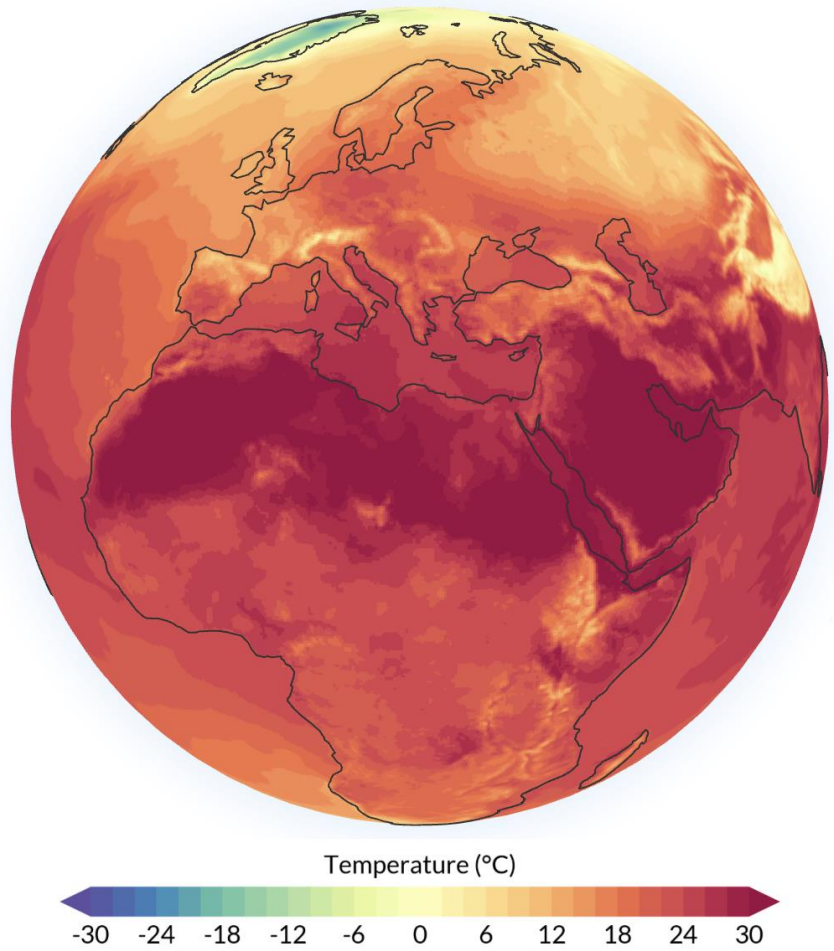
Credit: C3S/ECMWF



Surface air temperature • 5 Sep 2024

Daily average • Data ERA5

Credit: C3S/ECMWF

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