Corporate Alignment to the Paris Agreement: from Ambition to Action CCSI's Conference – October 25

How reliable and credible are the corporate net-zero pledges?

Sectors: Food processing, Cement, Chemical, Mining, Oil & Gas, Power utilities

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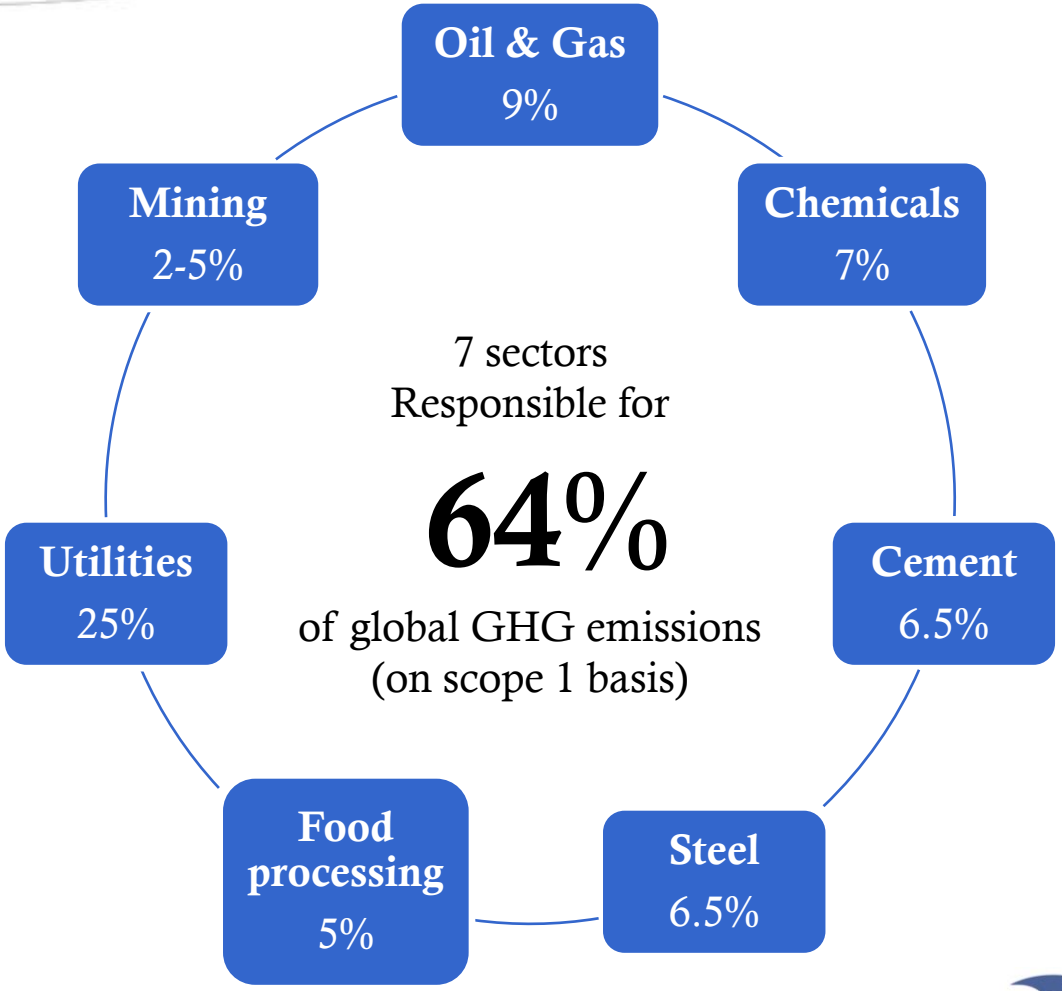
Company Selection

The company must:

1. Have net-zero emissions pathway
2. Top ten rank by market cap in their sector

> 5 assessed companies per sector



Source: Our World in Data, Mission Impossible Partnership, CDP, McKinsey

Assessed Companies

Utilities	Steel	Oil & Gas	Mining	Food & Beverage	Cement	Chemicals
NextEra Energy, Inc.	Arcelor Mittal	Shell	BHP Group	Nestle	Cement Roadstone Holding	Merck KGaA
Enel SpA	POSCO	Total Energies	Rio Tinto	McDonald's Corp.	Siam Cement	Air Liquide
Iberdrola	JSW Steel	BP	Vale	Unilever	Holcim	BASF
Duke Energy	Nippon Steel	Enbridge	Glencore	Danone	Taiwan Cement	Bayer
The Southern Company	Steel Dynamics	Conoco-Phillips	Anglo-American	Coca Cola	Buzzi Unicem	Wesfarmers

Key Questions

1. Does the Company have short- and medium-term targets?
2. Are the targets absolute-based or intensity-based?
3. Are the targets aligned with science-based climate goals?
4. Do the Company's Net Zero target include Scope 3 GHG emissions?
5. Does the Company consider targets in planning for Capex and/or use an internal carbon price?
6. Does the Company rely on the use of biodiversity offsets or CCS?
7. Does the Company have a governance structure that incentivizes taking positive action?
8. Does the Company have a policy to avoid lobbying against climate policies?

Sources of Information

Climate Action 100+ is an investor-led initiative pushing the world's largest corporate greenhouse gas emitters to align with the PA through engagement and benchmarking.

InfluenceMap's analysis provides third party clarity and detailed measurement of how corporations influence / lobby policy needed to address climate change.

TPI assesses companies' preparedness for the transition to a low-carbon economy, including measuring and benchmarking their self-declared carbon intensity.

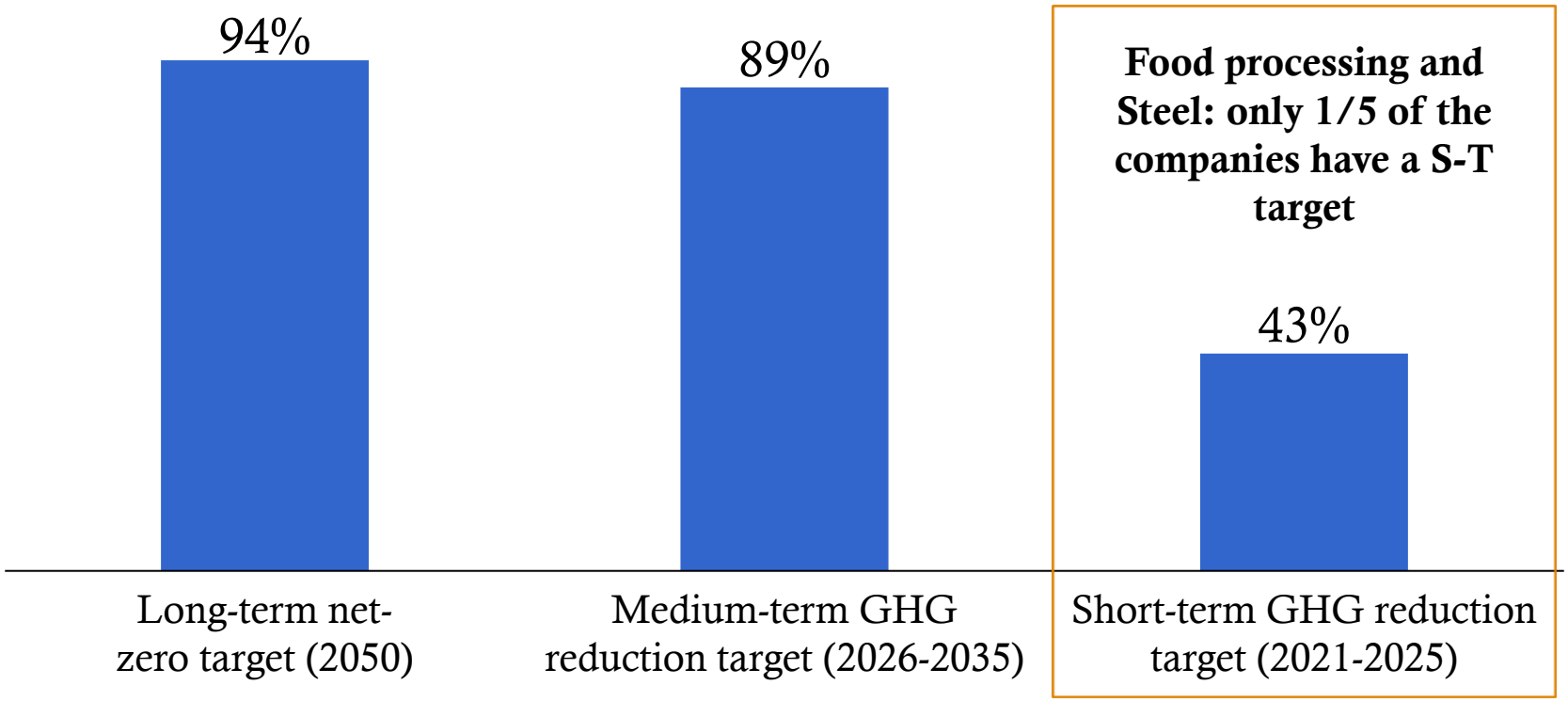
SBTi enables companies to set science-based emissions reduction targets.

+ Company Climate Reports

While Long-Term Ambition is Set, Short-Term Steps Remains Unassured

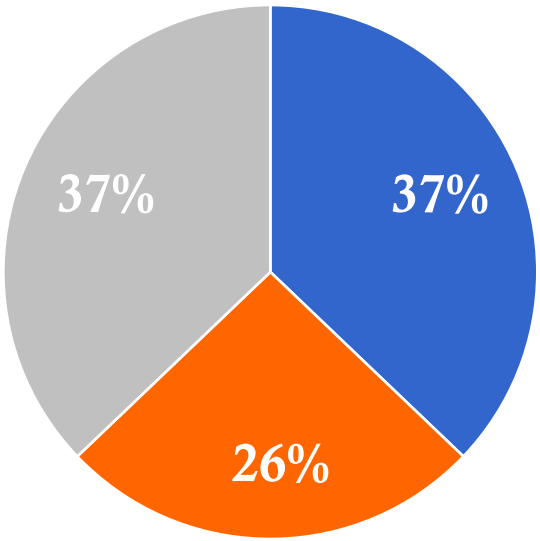
Types of targets set (scopes 1 & 2)

% of analyzed companies fulfilling criteria



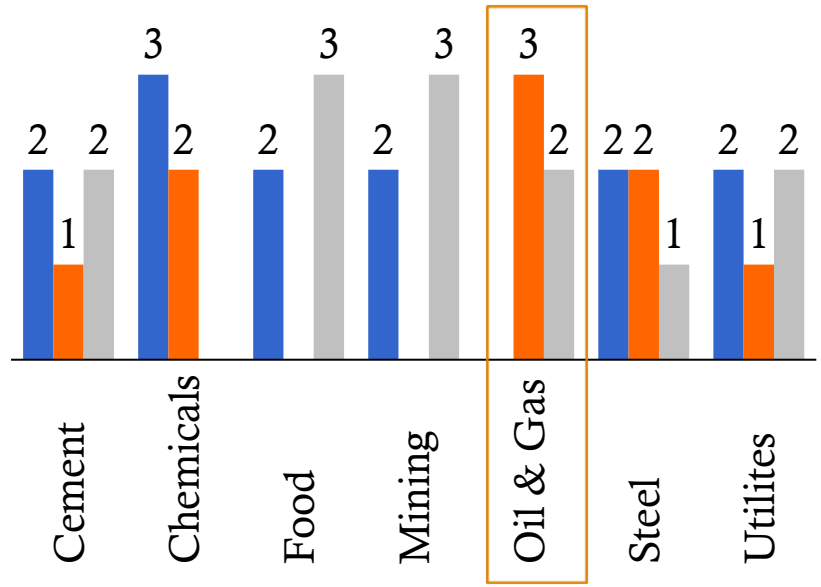
Intensity Targets Can Be Misleading, and Some Sectors Heavily Rely On Them

Types of GHG reduction targets across sectors



- Absolute (set amount)
- Intensity (emissions target/economic output)
- Blended (both)

Emissions reduction targets by sector

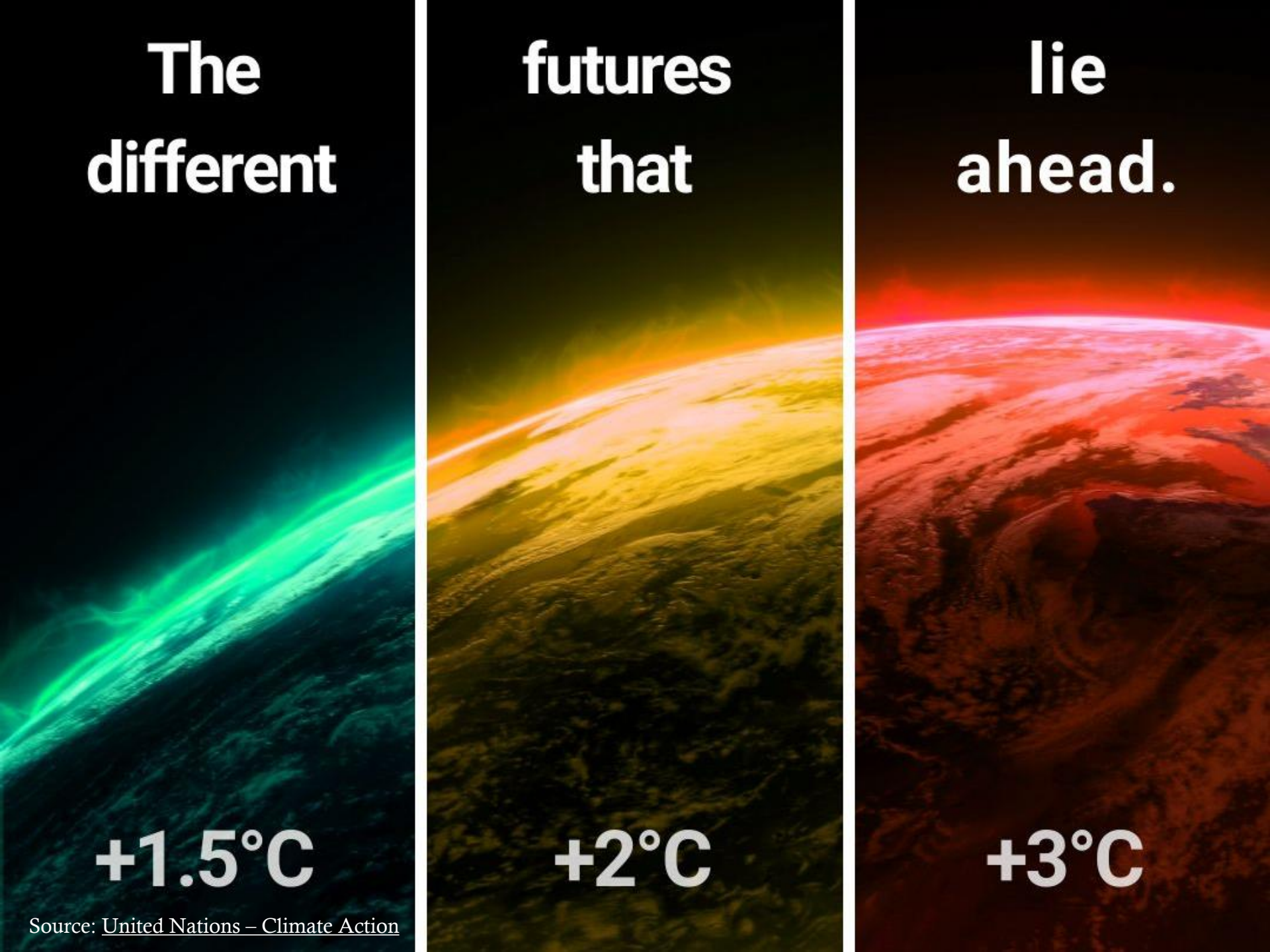


- Absolute (set amount)
- Intensity (emissions target/economic output)
- Blended (both)

Intensity targets can be misleading, and some sectors heavily rely on them

Variety of Baseline Year For Emission Reduction Targets Makes GHG Metrics Incomparable

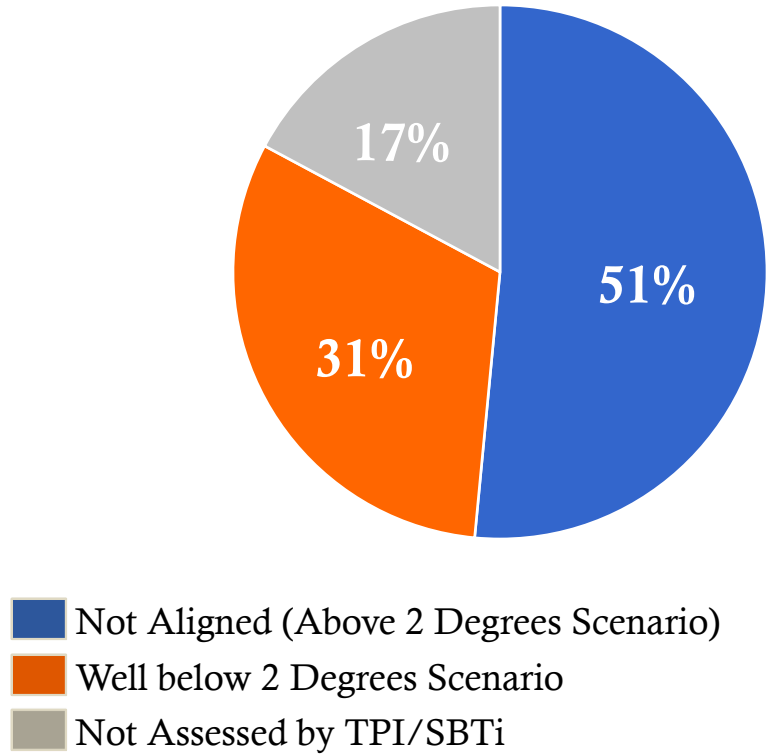
Industry	Most recent base year	Most distant base year
Cement	2018	1990
Utilities	2017	2005
Food	2018	2010
Steel	2018	2013
Oil & Gas	2019	2015
Mining	2019	2016
Chemicals	2020	2018



Source: United Nations – Climate Action

Expected Emission Trajectory Alignment: More Than Half Are Not aligned

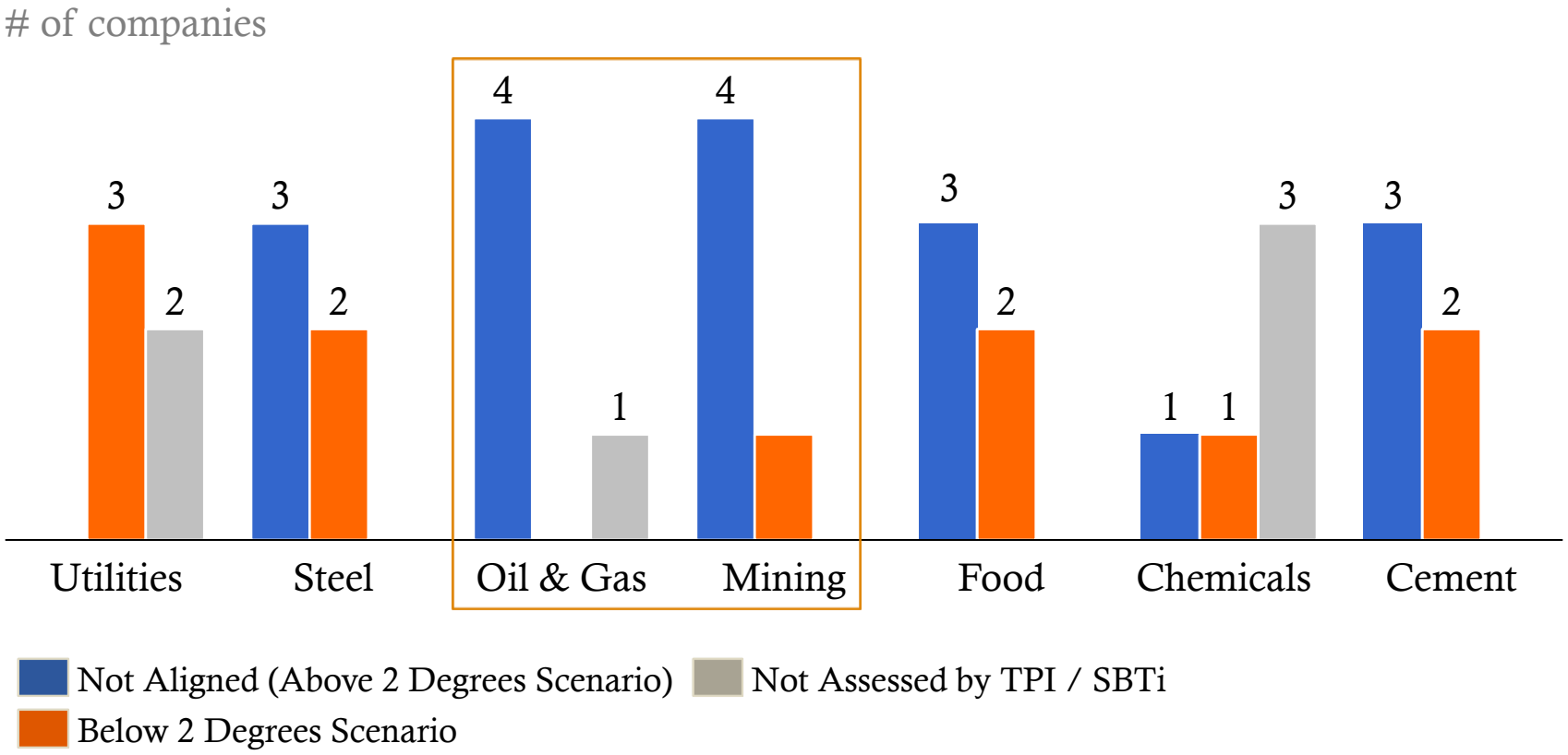
Climate goals from 35 analyzed companies



Source: Transition Pathway Initiative (TPI) and Science Based Targets Initiative (SBTi) company assessments

Extractive Sector is Overwhelmingly Not Aligned; Better Results for the Hard-to-Abate Sectors (Steel and Cement)

Sectoral breakdown of alignment with climate goals



Source: Transition Pathway Initiative (TPI) and Science Based Targets Initiative (SBTi) company assessments

Understanding Scope 1, 2, and 3 Emissions

Scope 1

Direct (Owned) Emissions

ONSITE facility emissions

direct combustion

OWNED equipment emissions

company owned vehicles/equipment

Scope 2

Indirect (Purchased) Emissions

PURCHASED facility energy

for electricity, heating/cooling, steam

Scope 3

Other Indirect (Purchased) Emissions

EMPLOYEE emissions

travel, commuting

LEASED ASSETS emissions

operations of leased assets

SUPPLY CHAIN emissions

material extraction/production, purchased goods/services, sold goods/services, material waste

https://www.climategifs.com/

Tackling Scope 3 Is The Priority For Most Sectors

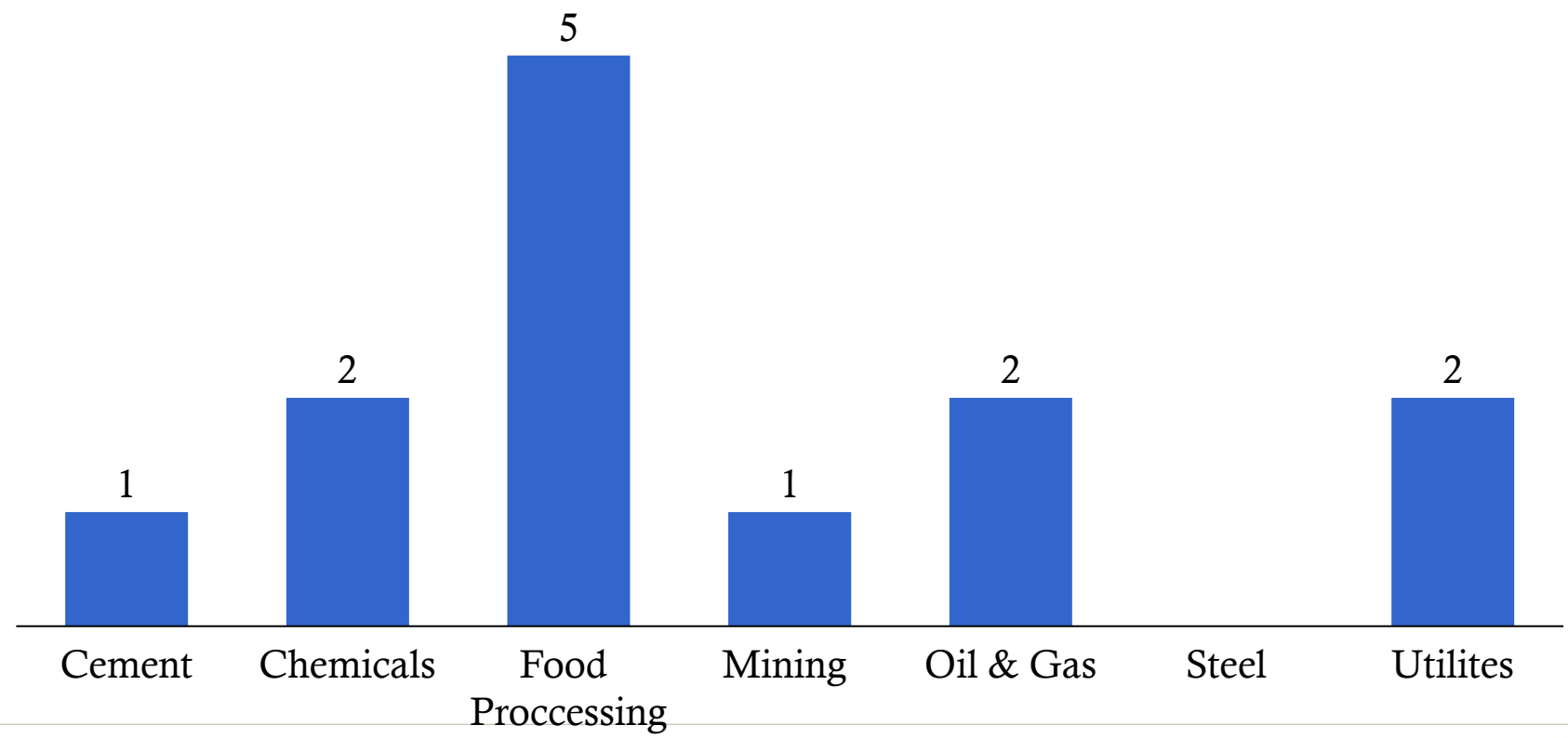
Unit: MmT CO2e

	Utility company	Steel Company	Oil & Gas company	Mining company	Food Processing Company	Cement company	Chemical company
Company	The Southern Company (2020)	Nippon Steel (2019)	Shell (2020)	Rio Tinto (2020)	McDonalds (2020)	Holcim (2020)	Air Liquide (2020)
Scope 1 Emissions	75.1	9	98	22.8	0.1	110	15
Scope 2 Emissions	0.2	84	9	8.7	0.4	7	12.5
Scope 3 Emissions	36.6	7.5	1304	519	53,7	29	19.5
Scope 3 Percentage	**33%**	**7%**	**92%**	**94%**	**99%**	**20%**	**41%**

Mmt CO2e = Million Metric Tonnes of Carbon Dioxide Equivalent Emissions

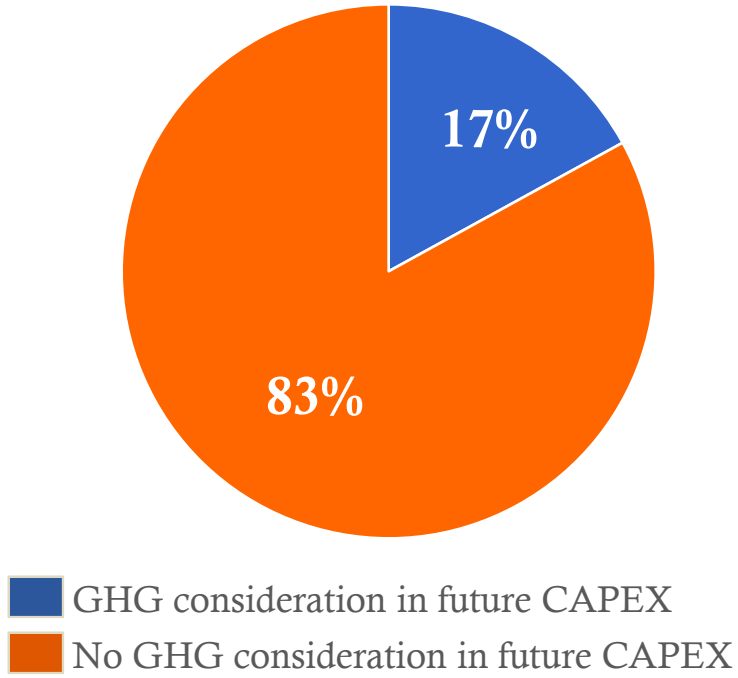
Scope 3: Beyond the Food Sector, Scope 3 is Hardly Targeted

Inclusion of material scope 3 into reduction targets by industry

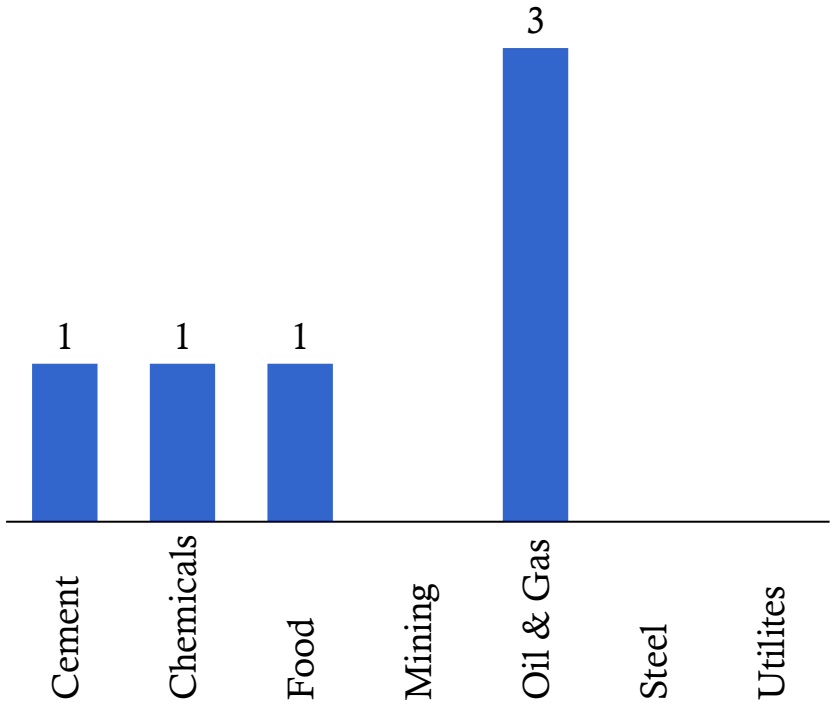


Outside Of Oil And Gas, Companies Generally Do Not Consider GHG Emission Reduction Targets In Planning For Future CAPEX

Has the corporation stated that it considers its GHG reduction target commitments as a component of its assessment of future CAPEX?



GHG consideration in future CAPEX



Only 1 company across the entire sample states to align assessment of future CAPEX with 1.5° scenario

Internal Carbon Price: Split Practice and Set Too Low to Shift CAPEX

Industry	Highest carbon price	Lowest carbon price
Cement (3 use it, only 1 discloses)	$18/ton	
Chemicals (4 use it, 3 disclose)	$115/ton	$18/ton
Food (no one has it)	NA	
Mining (5 use it, only 2 disclose)	$120/ton	$50/ton
Oil & Gas (4 use it , 3 disclose)	$100/ton (2030)	$40/ton
Steel (only 2 use it , only 1 company discloses)	$17.5/ton	
Utilities (4 use it, 4 disclose)	$50/ton	$7/ton

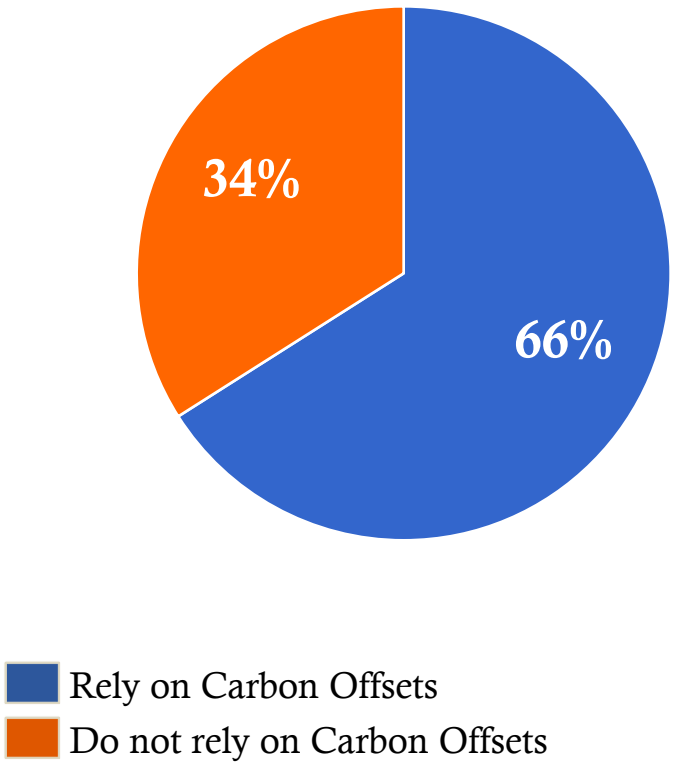
> *Further burdens such as carbon pricing will mean for the industry to be deprived of the source of innovation toward decarbonization* – (a steel company in the sample)

VS.

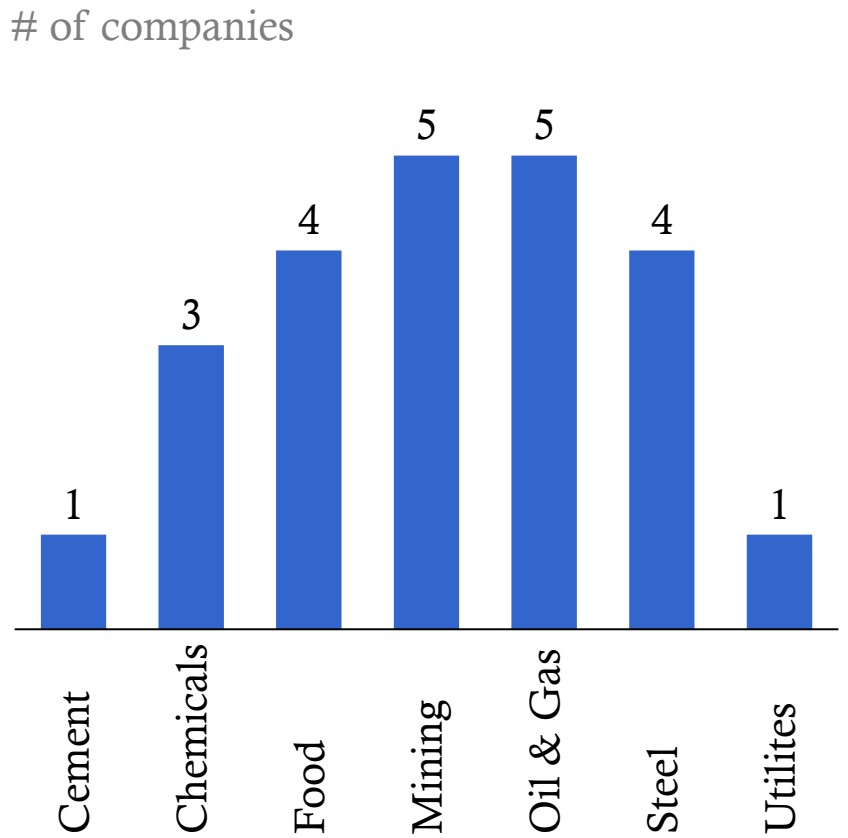
> *We align our capex spending with our ambition to achieve net zero GHG emissions by 2050, in line with the global goal to limit global warming to 1.5C. To drive internal change, we have set ourselves an internal carbon price of €100 per metric ton when calculating our capital expenditure projects and additionally conduct ecological assessments of relevant investments* – (a chemical company in the sample)

High Reliance on Nature-Based Carbon Offsets to Achieve Net-Zero

Reliance on carbon offsets



Purchase of carbon offsets



Only 50% of the companies using nature-based offsets report details and only 2 companies consider biodiversity as a residual measure

Offsets Don't Stop Climate Change

Natural reasons	Regulatory/ Economic reasons
• Carbon storage in natural ecosystems is inherently temporary and highly reversible • Carbon offsets cannot properly quantify the amount of carbon being captured	• The system is voluntary and unregulated • Companies are not required to disclose offset purchases • The cheap availability of offsets is unlikely to persuade companies to make significant emissions cuts • The offset market is fragmented and distrusted

Offsetting projects often do not deliver the results they promise while enabling polluters to continue emitting

Some Companies Have Understood It And Some Have Not!

*The Group selects projects focused on such solutions as **reforestation, deforestation prevention** or **biodigesters** that generate **high-quality carbon credits verified by independent international bodies, such as the Verified Carbon Standard or Gold Standard program**, and that also yield multiple environmental and social benefits for local communities* – (an Oil Company of the sample)

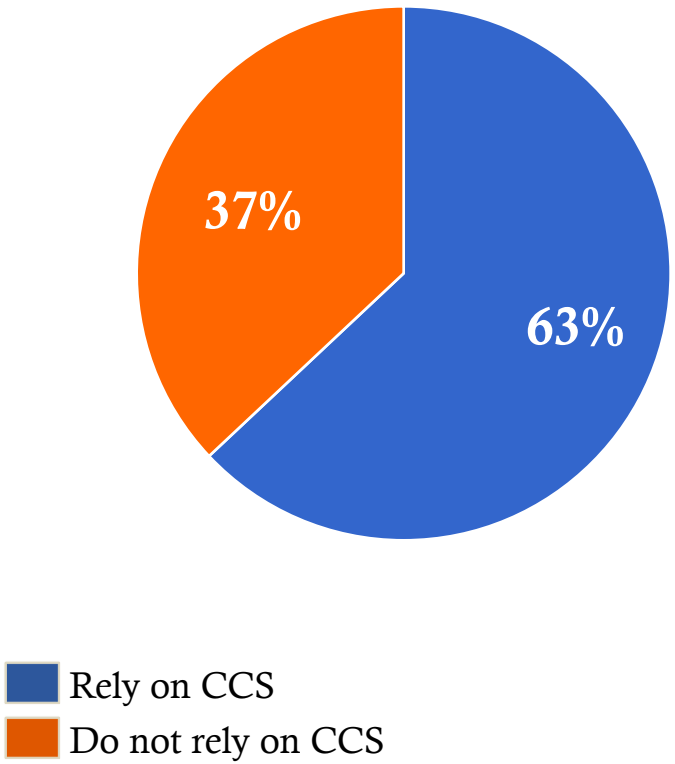
*Given the **high cost of emissions reductions** and lack of commercially viable low-carbon alternative technology for parts of our business, **our long-term ambition is for our operations to be net zero emissions by 2050, rather than zero emissions.** **Carbon offsets and removals** will therefore form part of our decarbonization strategy* – (a Mining Company in the sample)

VS.

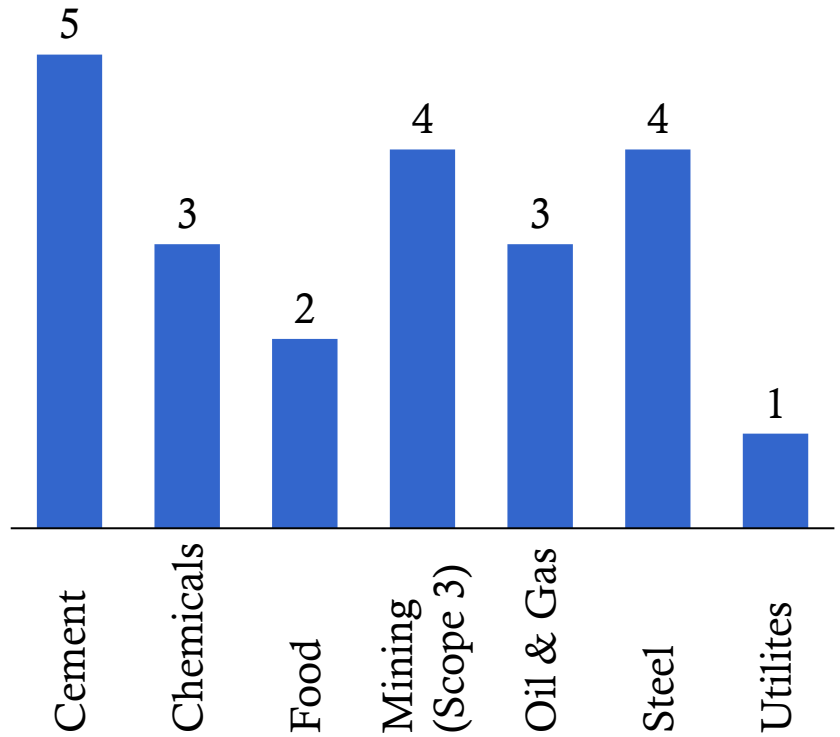
***Our primary focus in the 2020s and 2030s will be on emissions reduction**, **not offsetting** [..]this means ensuring that the emissions associated with our business and products are reduced towards zero as far as possible, with residual emissions balanced by carbon removals, through either natural or technological carbon sequestration (for example, reforestation or carbon capture and storage), thereby achieving a 'net zero' position* – (a Food Company in the sample)

Reliance on CCS is Mainstreamed and Led By the Hard-To-Abate Sectors

Reliance on CCS

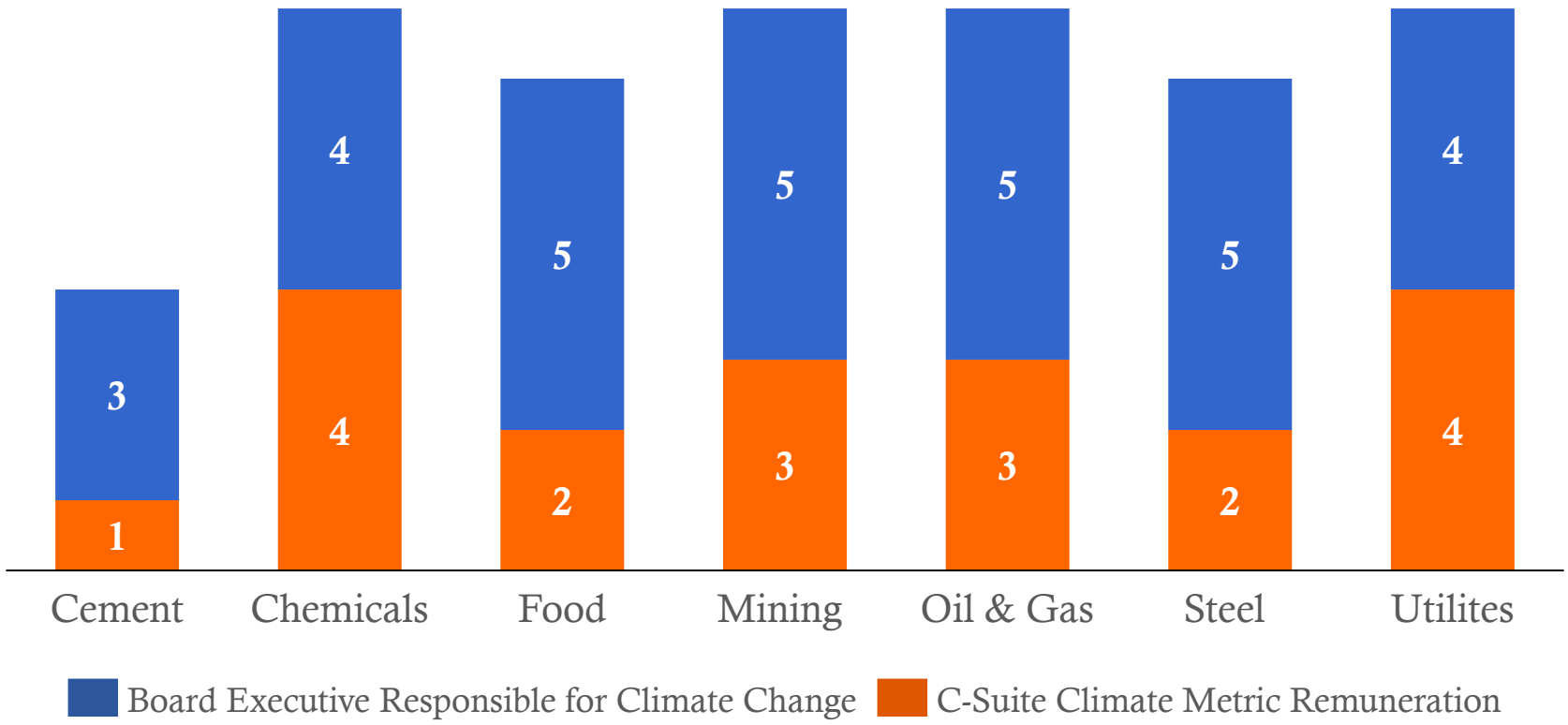


Use of CCS technologies by sector



While Climate Oversight At Board Level Is Well Established, Climate-Based Remuneration For C-suite Is Not Yet Mainstreamed Beyond Chemicals And Utilities

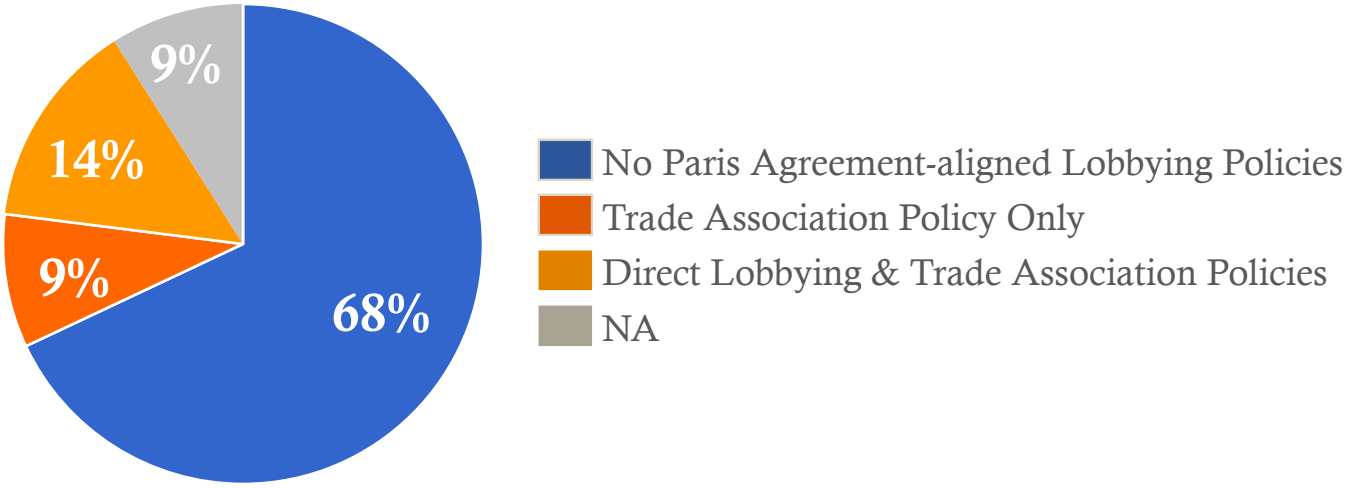
Corporate climate governance structure



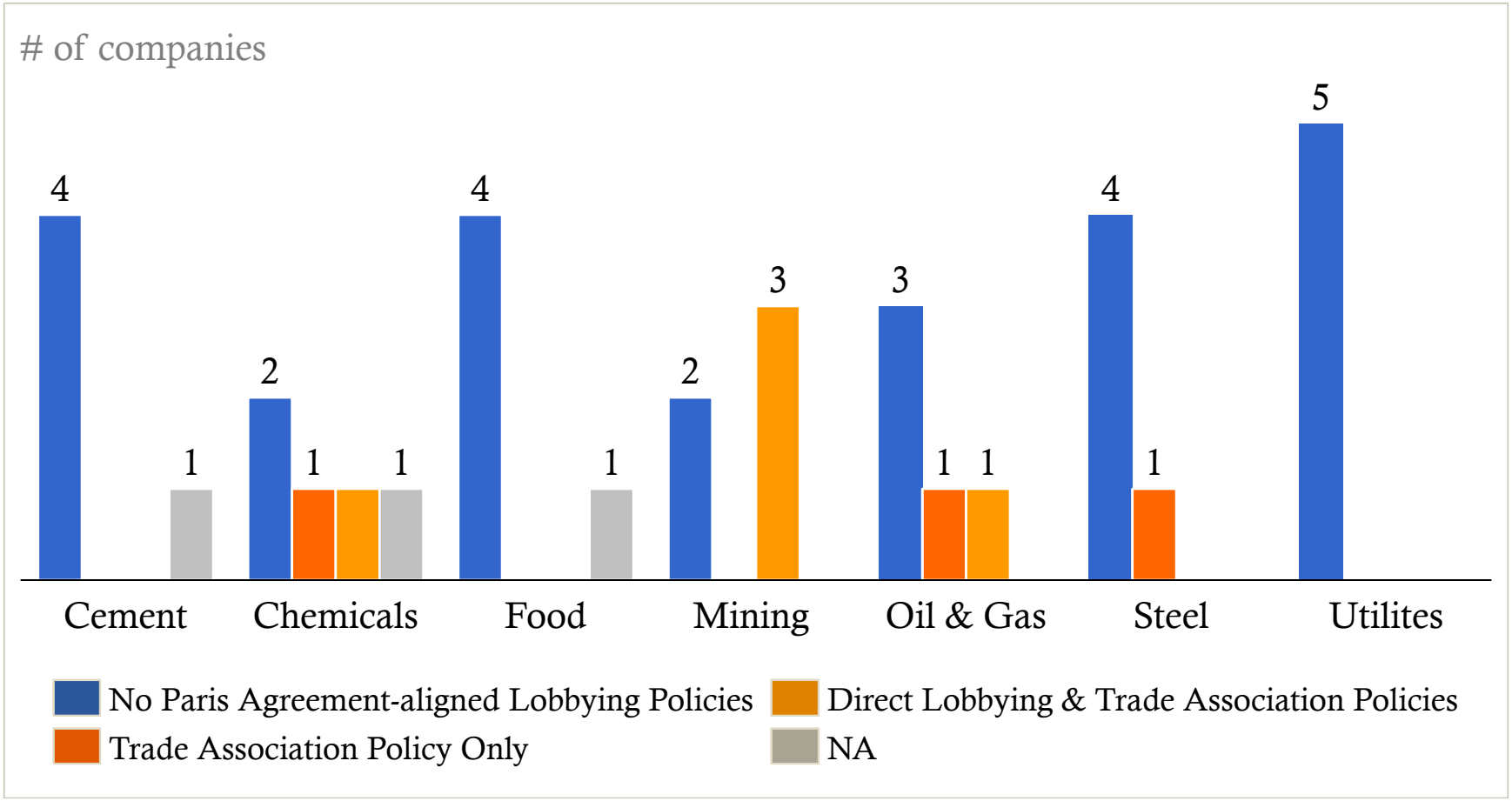
Direct And Indirect Lobbying Efforts Are Mostly Not Contained By Corporate Policies …

Direct lobbying	Industry trade association lobbying
Any attempt to influence legislation on the company's behalf	An association of business firms that voice their members' views on matters of common interest

Does the corporation have a policy requiring that the firm's lobbying activities – whether direct or through a trade association – align with the objectives of the Paris Agreement?



Lobbying Policies: Is The Mining Sector An Exception..



All assessed oil *AND* mining companies and

50% of our assessed food companies retain memberships in trade association lobbying **against** climate change;

3 out of 5 assessed utilities lobby **against** climate change

Source: Influence Map

The Good, the Bad, and the Ugly of the Net–Zero Pledges

Good shift in practice	• Use of medium term targets • Climate change oversight at board level
Split practice amongst various industries	• Use of intensity targets instead of absolute • Climate metrics included in C-suite remuneration
Widely deficient practice	• Reliance on biodiversity offsets and CCS • Lack of short term targets • Misalignment of existing targets • Absence of GHG consideration in CAPEX plan (let alone alignment) and internal carbon price set too low or inexistent • Absence of Scope 3 measurement and target • Counter productive lobbying