Climate Action 100+ Net Zero Company Benchmark **Interim assessments**

October 2022

Contents

Executive summary

October 2022 Net Zero Company Benchmark

- This presentation summarises the Net Zero Company Benchmark assessments for Climate Action 100+ focus companies, released in October 2022.
- This is the second round of Benchmark assessment to be published in 2022 and is considered an interim update. The timing of this release marks a change of the analysis and reporting cycle for the Net Zero Company Benchmark assessments from March to October, to improve alignment with corporate reporting and better support investor engagement with focus companies.
- There have been no significant changes to the Benchmark framework since the last round of assessments published in March 2022.
- Climate Action 100+ is consulting on a set of proposals to enhance the Net Zero Company Benchmark for the initiative's next phase, which is set to begin in 2023. Signatories, focus companies, and other stakeholders are encouraged to take this opportunity to share their perspectives on the future of the Benchmark via this consultation here.

Focus companies included in October 2022 Benchmark assessments

- 159 of 166 focus companies were assessed in this iteration on their progress against the three engagement goals of Climate Action 100+ and a set of key indicators related to business alignment with the goals of the Paris Agreement.
- Investor signatories have paused active engagement with five Russian companies (MMC Norlisk Nickel PSJC, Gazprom PAO, Lukoil OAO, Rosneft Oil Company, and Severstal PAO) until further notice. These Russian companies will continue to remain on the focus list for the time being but have not been assessed against the Benchmark in October 2022.
- In addition, following a merger between Santos and Oil Search in December 2021, future investor engagement will be with Santos. The October 2022 Benchmark therefore only assesses Santos.
- Lastly, following the separation of Exelon Corporation into Exelon and Constellation in February 2022, the initiative has not assessed Exelon or Constellation in the October 2022 Benchmark, as the companies have not disclosed enough information to make a Benchmark assessment engagement or decision-useful for investors.

Contextualising the October 2022 Benchmark results

- In contrast to previous Benchmark iterations, wherein 12 months had passed since companies were last assessed, there was only 6 months between the publication of the March 2022 and October 2022 Benchmark assessments.
- Companies were given the opportunity to provide additional disclosures or commitments, announced between 1st January 2022 and 13th May 2022, to improve on their Benchmark results published in March 2022 (which incorporated disclosures published through 31st December 2021).
- Focus companies therefore had relatively less time to demonstrate progress since the last Benchmark iteration, hence why the initiative has labelled the October 2022 Benchmark as an interim update.
- Near-term challenges—including geopolitical conflicts, the global energy security crisis, and post-pandemic economic uncertainty—remind investors of the importance of transitioning to net zero emissions economies for long-term stability and clean energy growth.

Net Zero Company Benchmark structure

Disclosure Framework	Assessed by
(1) NET-ZERO GHG BY 2050 AMBITION	TPI
(2) LONG-TERM (2036-2050) GHG TARGET	TPI
(3) MEDIUM-TERM (2026-2035) GHG TARGET	TPI
(4) SHORT-TERM (2020-2025) GHG TARGET	TPI
(5) DECARBONISATION STRATEGY	TPI
(6) CAPITAL ALIGNMENT (DISCLOSURE)	TPI
(7) CLIMATE POLICY ENGAGEMENT (DISCLOSURE)	TPI
(8) CLIMATE GOVERNANCE	TPI
(9) JUST TRANSITION [Beta*]	TPI
(10) TCFD DISCLOSURE	TPI

Alignment Assessments	Assessed by
CAPITAL ALLOCATION ALIGNMENT (for utilities / oil & gas)	CTI
CAPITAL ALLOCATION ALIGNMENT (for utilities / autos / steel / cement/ aviation)	RMI (formerly 2DII)
CLIMATE POLICY ENGAGEMENT (ALIGNMENT)	INFLUENCEMAP

CLIMATE ACCOUNTING AND AUDIT (DISCLOSURE & ALIGNMENT) [**Provisional]	CTI

*The data providers each provide independent, but complementary sets of Indicators..*Beta = data collected, but not publicly assessed. Subject to future change. **Provisional = data collected and publicly assessed. Subject to future change*

Key findings – Disclosure Framework

Considering the context of this interim assessment, companies have exceeded expectations and presented further incremental progress against the original Climate Action 100+ goals since the March 2022 Benchmark assessments.

- Three quarters (75%) of focus companies have set a net zero emissions by 2050 (or sooner) ambition that covers, at least, their Scope 1 and 2 GHG emissions. (22% increase since March 2022).
- The majority of focus companies (92%) have a board-level committee responsible for climate change.
- The majority of focus companies (91%) have committed to the basic aspects of the TCFD framework.

However, the near-term accountability mechanisms and robust plans needed to reach their aims is still lacking:

- Far too few focus companies are setting ambitious (1.5°C aligned) Short- (21%) and Medium-term (12%) greenhouse gas reduction targets.
- Though a growing number of focus companies are setting out Decarbonisation Strategies, the quality and quantity of these plans remains alarmingly low. Just 19% of focus companies have produced quantified decarbonisation strategies.
- Very few companies have made an explicit commitment to align their capex expenditures with long-term GHG goals.

Note: For the Disclosure Framework, the research cutoff date for the March 2022 iteration was the 31st of December 2021 and the research cutoff date for the October release was the 13th May 2022. Company disclosures or commitments made after May 13th 2022 have not been included in the October 22 Benchmark.

Key findings – Alignment Assessments (1)

- Less than one third of **electric utility focus companies** have a coal phaseout plan consistent with limiting global warming to below 2°C (let alone 1.5°C) and almost two thirds (61%) of **oil and gas focus companies** sanctioned projects inconsistent with this same aim in 2021 (Carbon Tracker Initiative (CTI)).
- Analysis by the Rocky Mountain Institute using the PACTA methodology (formerly run by 2 Degrees Investing Initiative) shows that 94% of **electric utility focus companies** do not plan to build out sufficient renewable energy capacity and are on a >2.7°C global warming pathway for the next 5 years. Similarly, only 17% of **autos focus companies** are planning to produce enough electric cars in the next 5 years to be aligned with the IEA Net Zero Emissions by 2050 scenario. In addition, no **steel, cement, or aviation focus companies'** emissions intensities are aligned with limiting global warming to either 1.5°C or below 2°C.

Key findings – Alignment Assessments (2)

- The climate policy engagement activities of focus companies and their industry associations **remain a barrier to ambitious climate policy**. Only 10% of focus companies have broad alignment between their direct climate policy engagement activities and the Paris Agreement and only 4% align their indirect climate policy engagement via industry associations with the Paris Agreement (InfluenceMap (IM)).
- The **widespread failure to integrate climate risks into accounting and audit practices persists.** No focus company met all criteria of the initiative's provisional assessment on climate accounting and audit. However, three focus companies have become the first to demonstrate the impact on their financial statements of using assumptions consistent with achieving net zero emissions by 2050 (CTI and the Climate Accounting and Audit Project (CAAP)).

Carbon Tracker Initiative RMI InfluenceMap Climate Action 100+ Global Investors Driving Business Transition

Overall picture

- Focus companies have continued to improve their disclosures, as measured by the Benchmark's Disclosure Framework. Investor engagement through the initiative has played a significant role in accelerating the net zero journey of focus companies, particularly around its three original engagement goals of cutting greenhouse gas emissions, improving climate governance, and strengthening climate-related financial disclosures.
- However, the encouraging uptake of net zero commitments is not matched by the development and implementation of credible decarbonisation strategies. The latest Alignment Assessments suggest that real-world activities do not yet demonstrate any meaningful shifts in business models at some companies to align with the Paris Agreement.
- While mindful of current external factors, including the short-term energy security crisis, investors consider the development of corporate decarbonisation strategies a key priority.

What's next?

- In 2023 the investors networks that deliver Climate Action 100+ will launch Phase 2 of the initiative.
- Climate Action 100+ intends to release an enhanced version of the Benchmark for Phase 2. A public consultation on a set of proposals to enhance the Benchmark opened on 13 October 2022. The final updated framework will be announced in Q1 2023.
- The first set of company assessments against the enhanced Benchmark will be released in September/October 2023.

Disclosure Framework assessments

Momentum in net zero ambition continues

- Since the launch of the Net Zero Company Benchmark in March 2021, net zero pledges (Indicator 1) have become more mainstream, with three quarters (75% or 119 focus companies) of the world's largest corporate GHG emitters having made a net zero target that covers, at least, Scope 1 and 2 GHG emissions.
- The results of the October 2022 Benchmark assessments show incremental progress on certain disclosure framework indicators, namely those relating to target setting (Indicators 2-4) and capital alignment (Indicator 6).

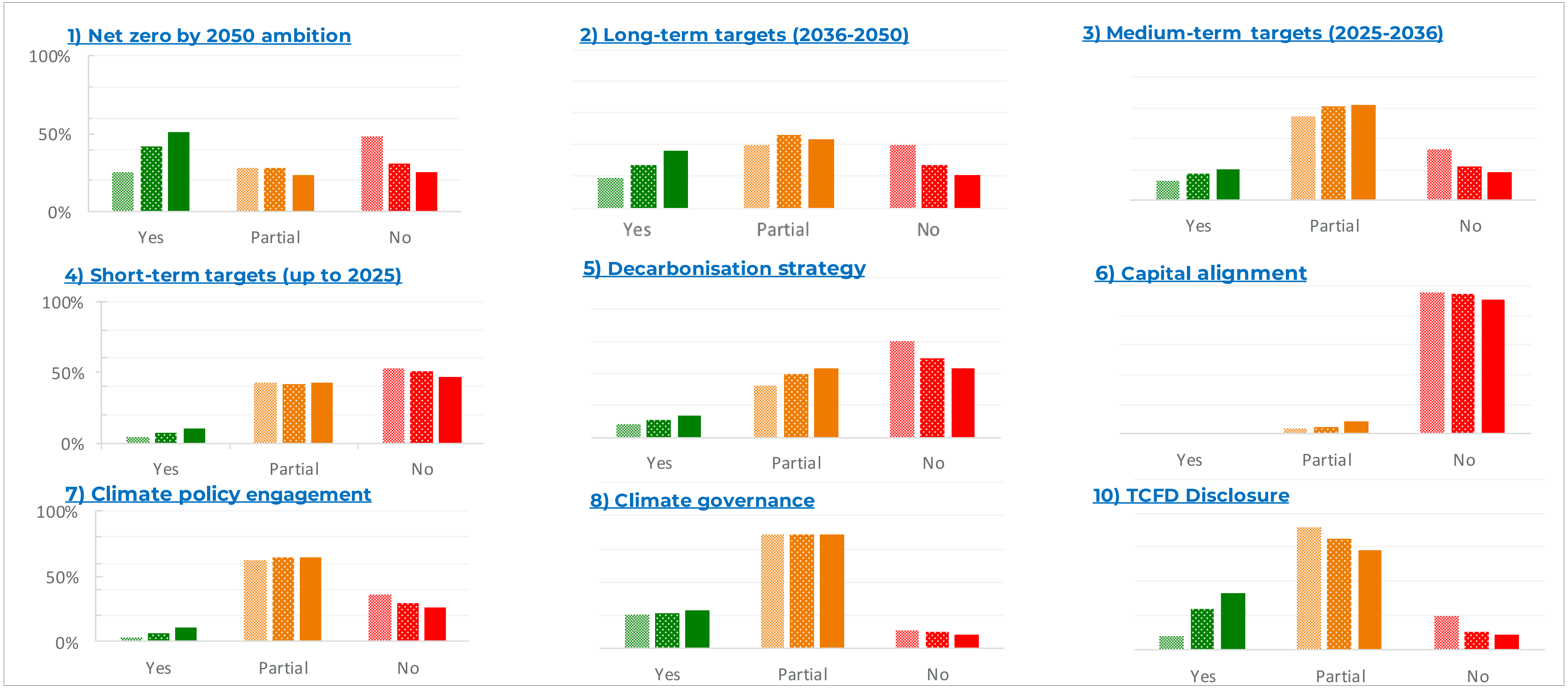
Absence of detail remains on delivering net zero long-term targets

- Most focus companies have so far failed to follow up on their commitments. Many have not yet disclosed the practical actions on how they intend to achieve their targets, with only roughly half of the focus companies (53% or 84 companies) having a decarbonisation strategy in place to reduce their GHG emissions (Indicator 5.1) and only 10% (15) of companies providing disclosures that commit to fully align their CAPEX plans with their GHG targets or the Paris Agreement (Indicator 6).
- While net zero commitments are fundamental to a net zero strategy, investor engagement should encourage focus companies to follow up on target setting with detailed climate transition plans to achieve these goals.
- However, the rate of progress from focus companies on these indicators is improving, with a handful of companies leading the way, including a single company meeting the criteria on capex for the first time by fully aligning its capital expenditure with a 1.5°C future.

Deficits in medium and short-term target setting persist

- The speed and scale of change by Climate Action 100+ focus companies still needs to significantly increase to keep the Paris Agreement targets within reach.
- The transparency and integrity of focus company net zero pledges must now be put into even more urgent focus. This will give investors' confidence that these targets reflect robust and ambitious climate mitigation commitments.
- Setting long-term targets, including net zero ambitions, is only the first step, with companies needing to develop credible and interim targets covering all relevant emissions scopes in the short and mid-term to ensure that their path to net zero is in line with the International Energy Agency's Net Zero Emissions by 2050 Scenario (IEA's NZE 1.5°C scenario).

Progress so far



Transition Pathway Initiative

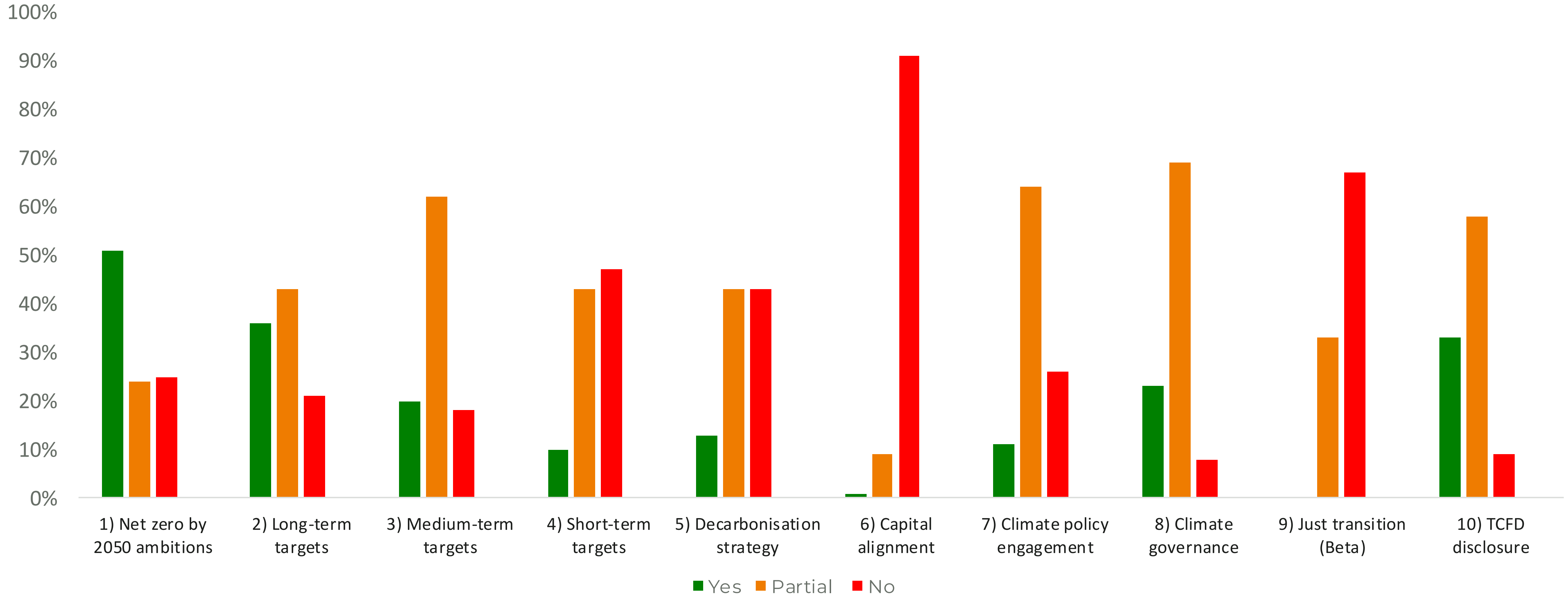
FTSE Russell

March 2021
March 2022
Oct 2022

*This slide excludes the Just Transition indicator as this is still in Beta form, meaning it has not been through a formal public consultation. It was also introduced in March 2022 and thus does not have complete progress history.

Climate Action 100+
Global Investors Driving Business Transition

Summary: October 2022 disclosure framework results by indicator



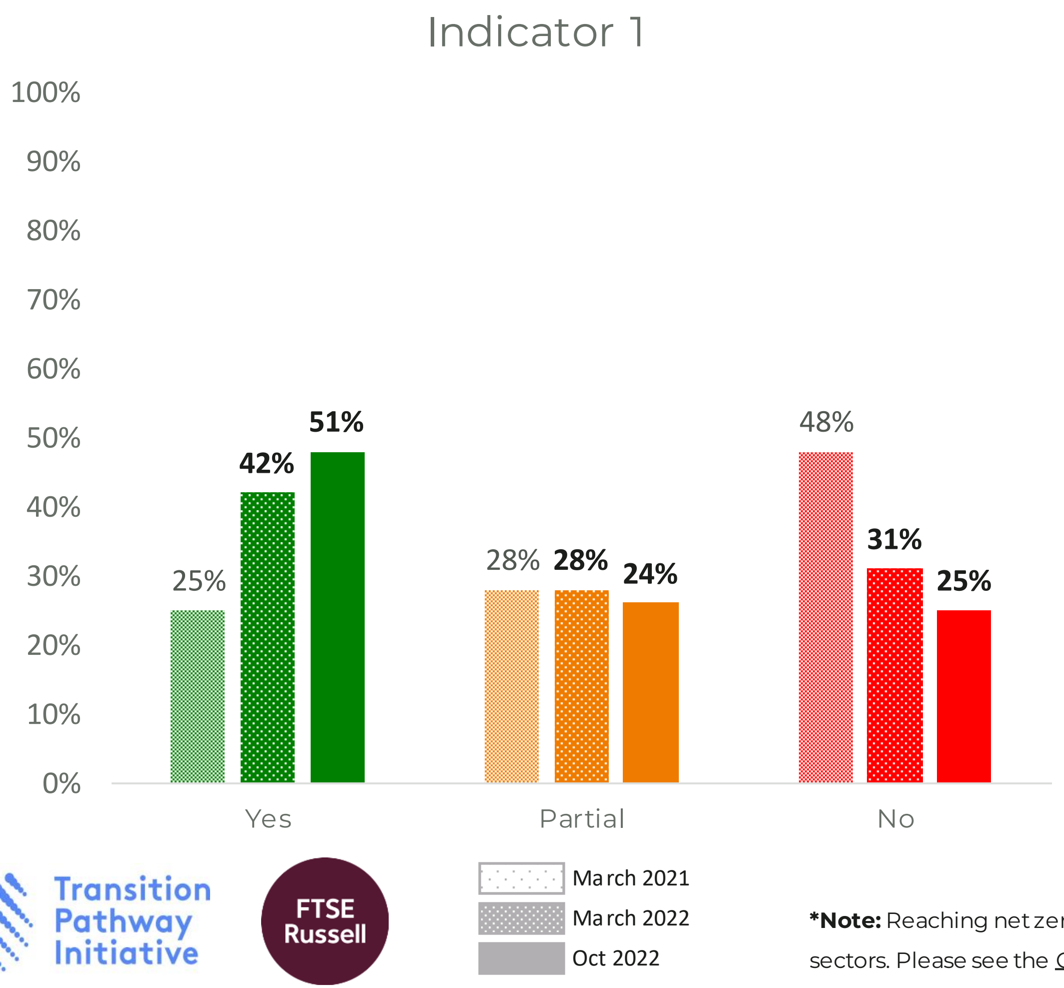
Transition Pathway Initiative

FTSE Russell

* 159 focus companies were assessed for the October 2022 Benchmark. Companies scored 'Partial' at the Indicator level if they received a 'Yes' score for at least one of the underlying Metrics (each Indicator comprises 1-4 Sub-indicators; Sub-indicators are comprised of 1-3 Metrics)

Climate Action 100+
Global Investors Driving Business Transition

Indicator 1 – Net Zero GHG by 2050 (or sooner) ambition



- **Three-quarters (75%) of the world's largest corporate GHG emitters** have set a net zero by 2050 (or sooner) ambition that covers, at least, their Scope 1 and 2 GHG emissions. This is up from 69% in March 2022.
- Progress from the March 2022 Benchmark is mainly attributed to **electric utilities and oil & gas companies** adopting net zero commitments that cover all material GHG emissions
- Investor engagement should focus on encouraging company specific commitments that explicitly target net zero by 2050 (or sooner)*, and clearly disclose the share of Scope 1 and 2 emissions covered, including Scope 3 where applicable.

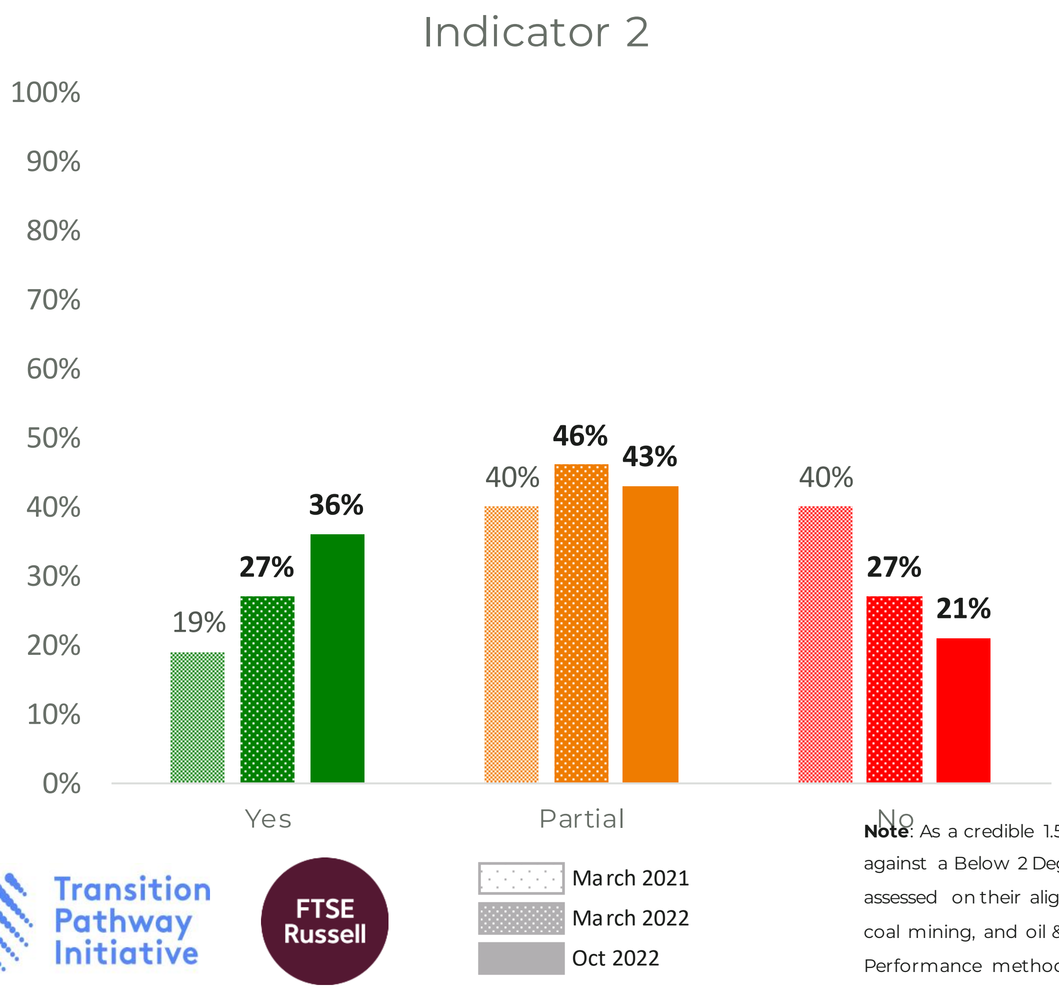
***Note:** Reaching net zero emissions by 2050 should not necessarily be the final goal for companies in all sectors. Please see the Climate Action 100+ Global Sector Strategies for more detailed guidance.

Transition Pathway Initiative

FTSE Russell

Climate Action 100+
Global Investors Driving Business Transition

Indicator 2 – Long-term (2036-2050) GHG reduction target(s)



- **Over a third (36%) of focus companies have set long-term targets that align with a 1.5°C pathway** (where applicable), which is a 9% improvement from March 2022.
- More action is still needed on company targets that include **Scope 3 emissions** (where applicable), which is often the most significant share of a company's carbon footprint.
- Investor engagement should encourage companies to establish more robust long-term targets (i.e., covering all scopes of emissions and aligning with 1.5°C pathways).

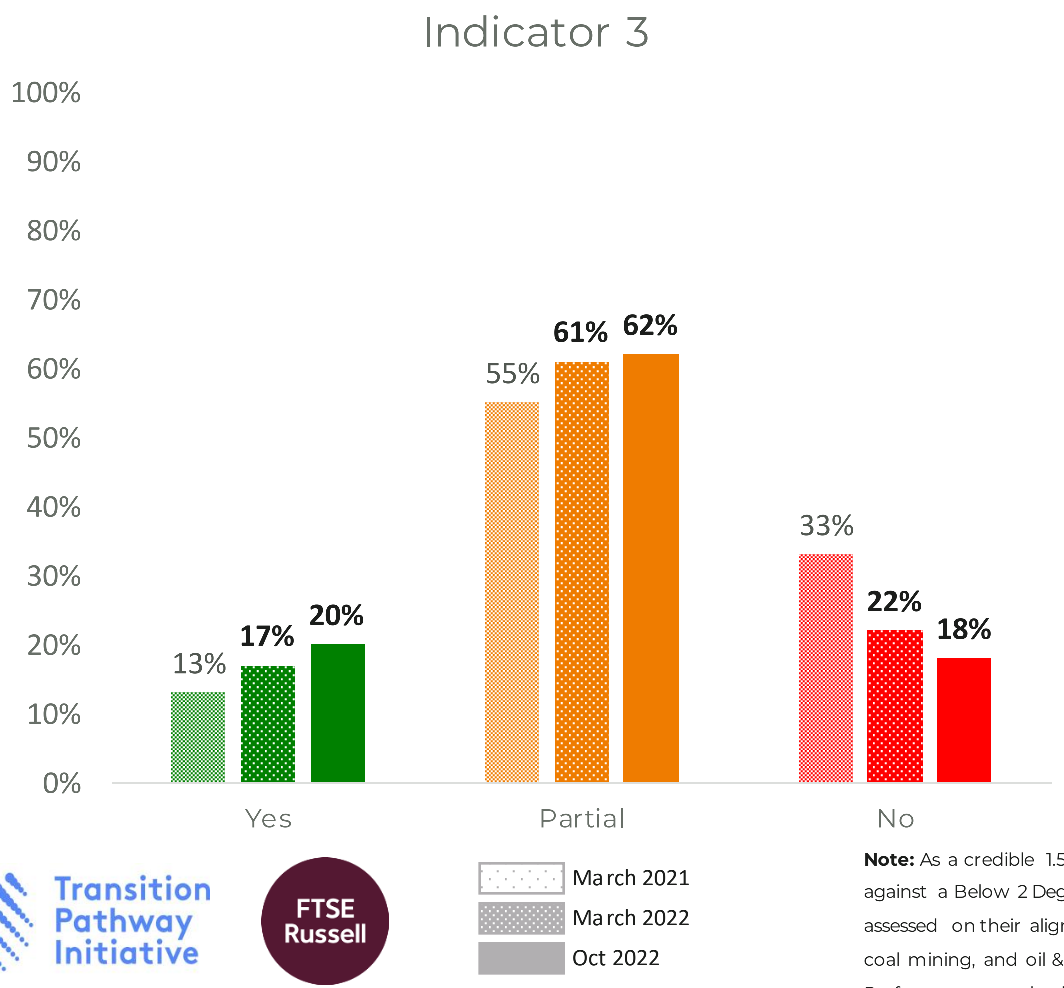
Note: As a credible 1.5°C scenario remains absent for the paper and autos sectors, these companies are currently assessed against a Below 2 Degrees scenario. Due to a lack of methodology, companies in the following sectors are not currently assessed on their alignment with a 1.5°C pathway: other industrials, other transport, consumer goods & services, chemicals, coal mining, and oil & gas distribution. In total, these are 48 out of 159 companies. For companies where a Carbon Performance methodology does not exist, such companies only need to set a long-term target that covers all material emissions to score "Yes" on the criteria.

Transition Pathway Initiative

FTSE Russell

Climate Action 100+
Global Investors Driving Business Transition

Indicator 3 – Medium-term (2026-2035) GHG reduction target(s)



- Although 82% of focus companies have set medium-term targets, **only 20% have established ambitious medium-term targets** that cover all material scopes and are aligned with a 1.5°C pathway.
- Companies are failing to set targets **aligned with a 1.5°C scenario,** which is concerning as these targets are crucial to staying on track to reach net zero by 2050 and thereby prevent some of the worst impacts of climate change.
- Long-term GHG targets which are not substantiated by ambitious interim targets raises questions about the credibility of companies' commitments to transition to net zero in line with 1.5°C and should be a key topic of investor engagements.

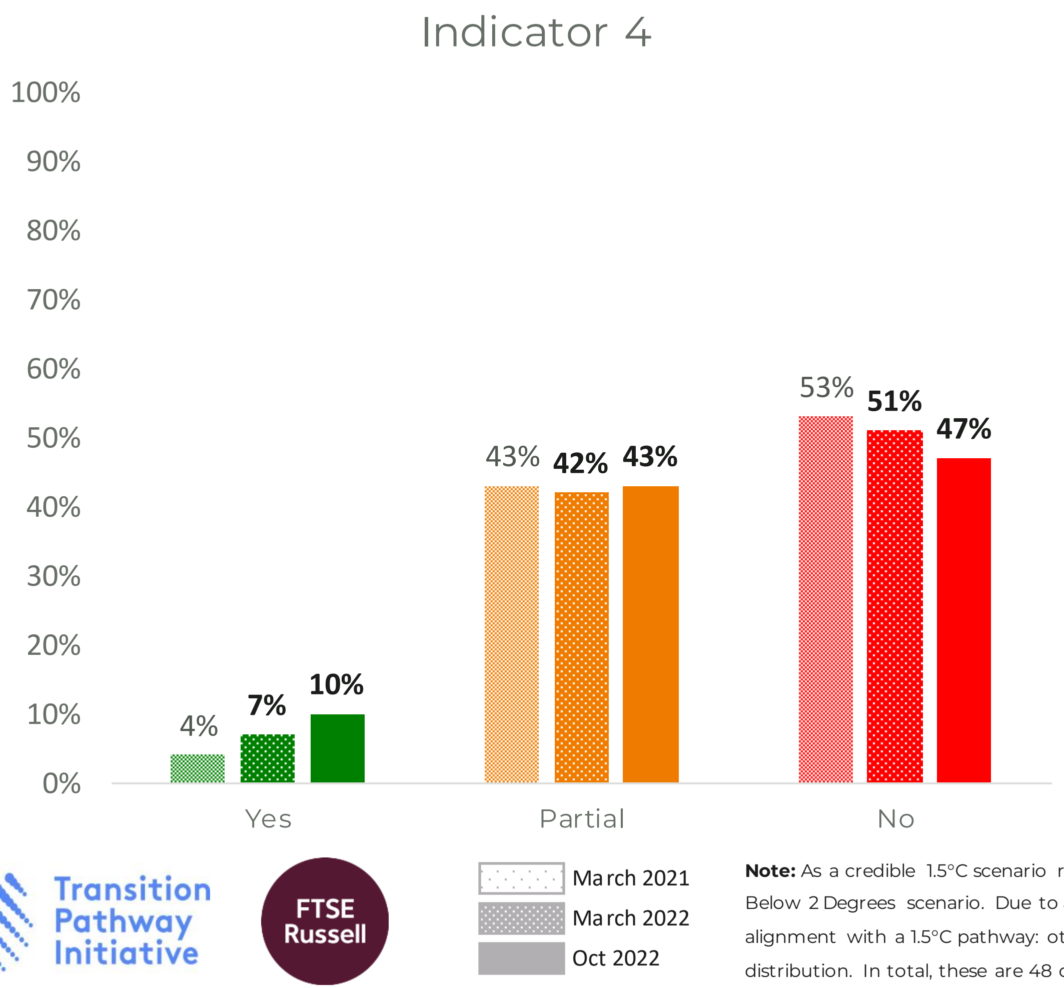
Note: As a credible 1.5°C scenario remains absent for the paper and autos sectors, these companies are currently assessed against a Below 2 Degrees scenario. Due to a lack of methodology, companies in the following sectors are not currently assessed on their alignment with a 1.5°C pathway: other industrials, other transport, consumer goods & services, chemicals, coal mining, and oil & gas distribution. In total, these are 48 out of 159 companies. For companies where a Carbon Performance methodology does not exist, such companies only need to set a medium-term target that covers all material emissions to score "Yes" on the criteria.

Transition Pathway Initiative

FTSE Russell

Climate Action 100+
Global Investors Driving Business Transition

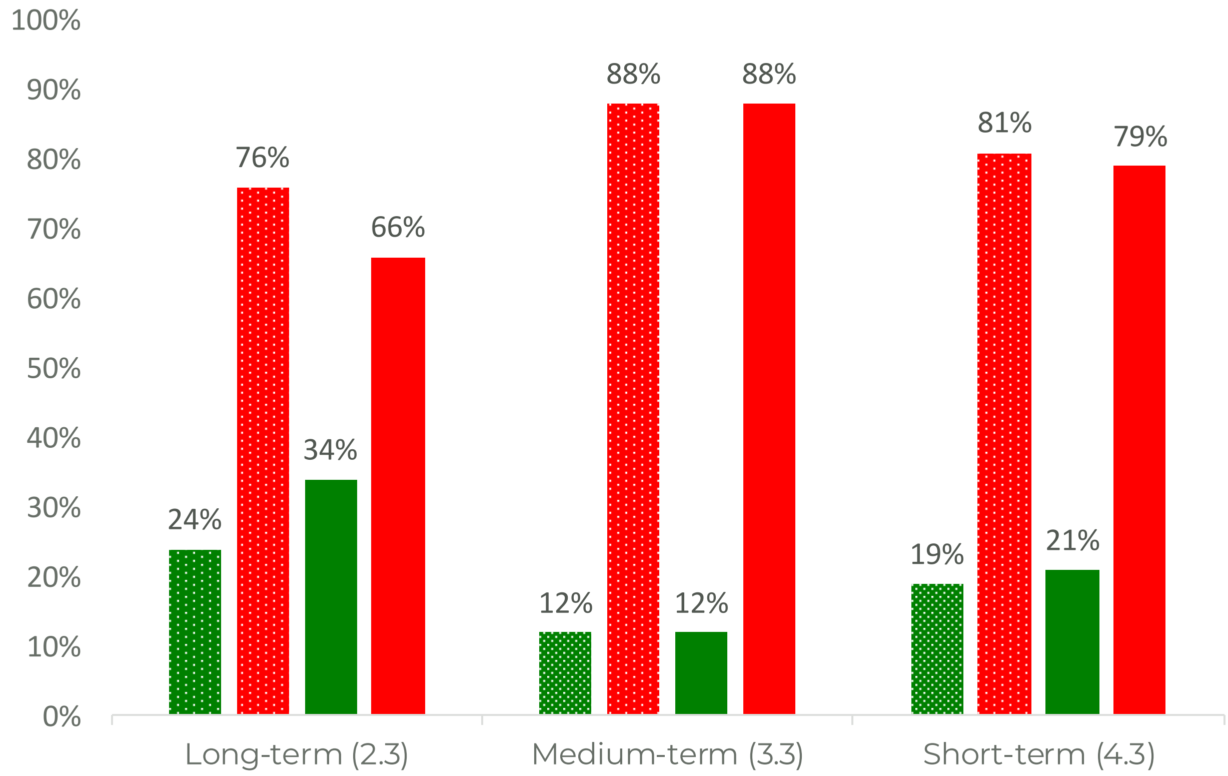
Indicator 4 – Short-term (2021-2025) GHG reduction target(s)



- While over half (53%) of focus companies have set short-term targets, **only 10% of companies have short-term targets aligned with 1.5°C in 2025** that cover all material scopes of emissions.
- The limited progress in establishing well-defined short-term targets contrasts with the need for immediate action to reduce emissions at a pace that is consistent with limiting global mean temperature rise to 1.5°C.
- As with medium-term targets, investor engagement should encourage companies to set 1.5°C-aligned short-term targets, including Scope 3 emissions where applicable, on their path to decarbonisation.

Note: As a credible 1.5°C scenario remains absent for the paper and autos sectors, these companies are currently assessed against a Below 2 Degrees scenario. Due to a lack of methodology, companies in the following sectors are not currently assessed on their alignment with a 1.5°C pathway: other industrials, other transport, consumer goods & services, chemicals, coal mining, and oil & gas distribution. In total, these are 48 out of 159 companies. For companies where a Carbon Performance methodology does not exist, such companies only need to set a short-term target that covers all material emissions to score "Yes" on the criteria.

Indicators 2-4 – Detail on emissions reduction target alignment levels with 1.5°C climate scenarios (Metrics 2.3, 3.3, and 4.3)



- **Long-term GHG target alignment:** 34% of focus company targets align with a 1.5°C scenario in the long-term, which is a notable **improvement of 10%** since March 2022.
- **Medium-term GHG target alignment**: There has been no improvement since March 2022, which is alarming as 88% of focus companies do not have 1.5°C-aligned medium-term targets.
- **Short-term GHG target alignment:** 79% of companies still do not have 1.5°C-aligned short-term targets, despite minor improvement of 2% from March 2022.
- The lack of progress in setting ambitious short and medium-term targets remains a matter of concern as these targets are critical to providing a realistic pathway for companies to achieve net zero in line with 1.5°C. This should therefore be a priority focus area for investor engagements.

- *These metrics are based on TPI's Carbon Performance methodologies which apply the Sectoral Decarbonisation Approach (SDA), a science-based method*, that translates international climate goals into sector-specific benchmarks, against which the performance of individual companies can be assessed. *Companies were assessed against the IEA's 1.5°C scenario for the October 2022 iteration of the Benchmark, except for paper and autos companies, where a credible 1.5°C scenario remains absent. Companies in these sectors were assessed against the IEA's Beyond 2°C and 2°C High Efficiency scenarios, respectively. If a company's current emissions intensity is aligned with the assessment scenario used (or will be aligned in the short or medium-term), it is assumed that the intensity will continue to be aligned in the long-term.*
- *The figures on this slide relate to companies operating in sectors covered by the TPI Carbon Performance assessment methodologies (Airlines, Autos, Cement, Diversified Mining, Electricity Utilities, Oil & Gas, Paper, Shipping and Steel). This amounted to 118 companies in March 2022 and 111 companies in October 2022..*

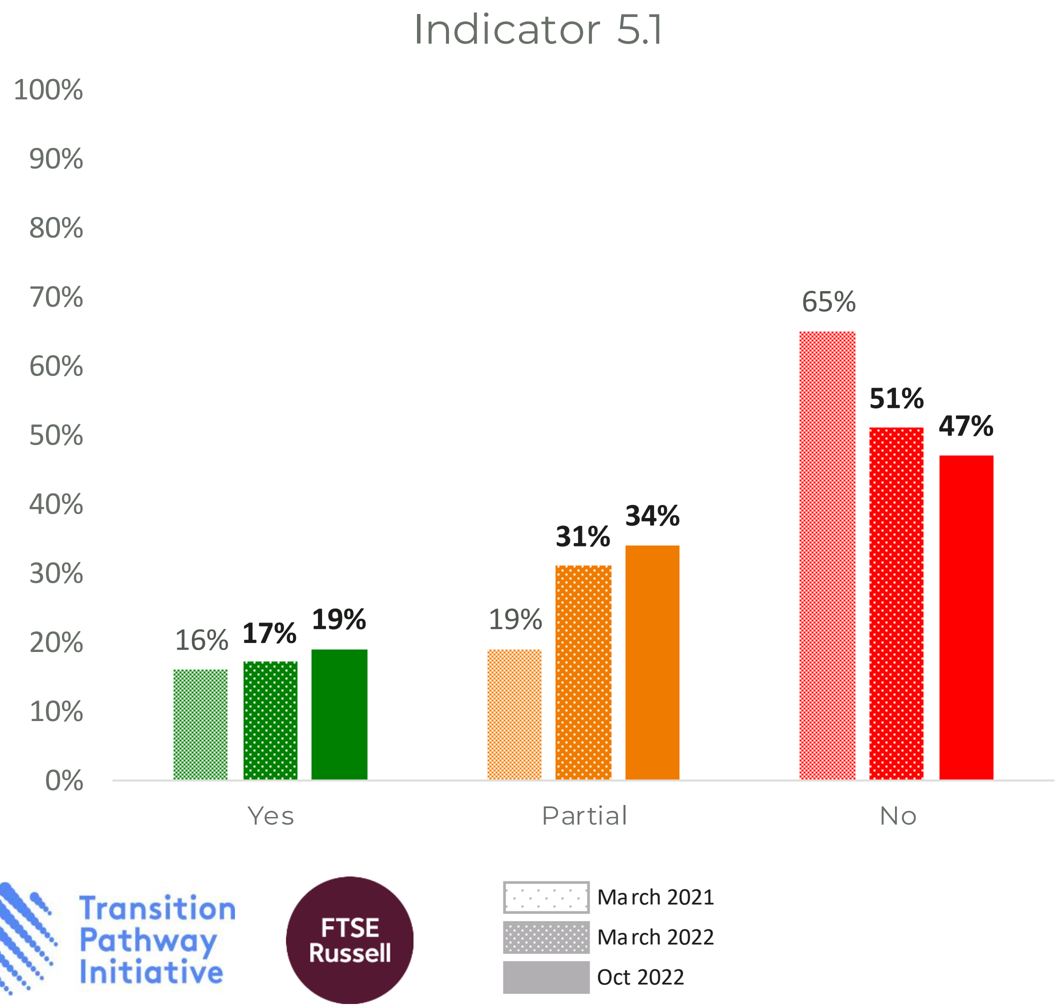
Transition Pathway Initiative

FTSE Russell

Climate Action 100+
Global Investors Driving Business Transition

Indicator 5.1 – Decarbonisation strategy (target delivery)

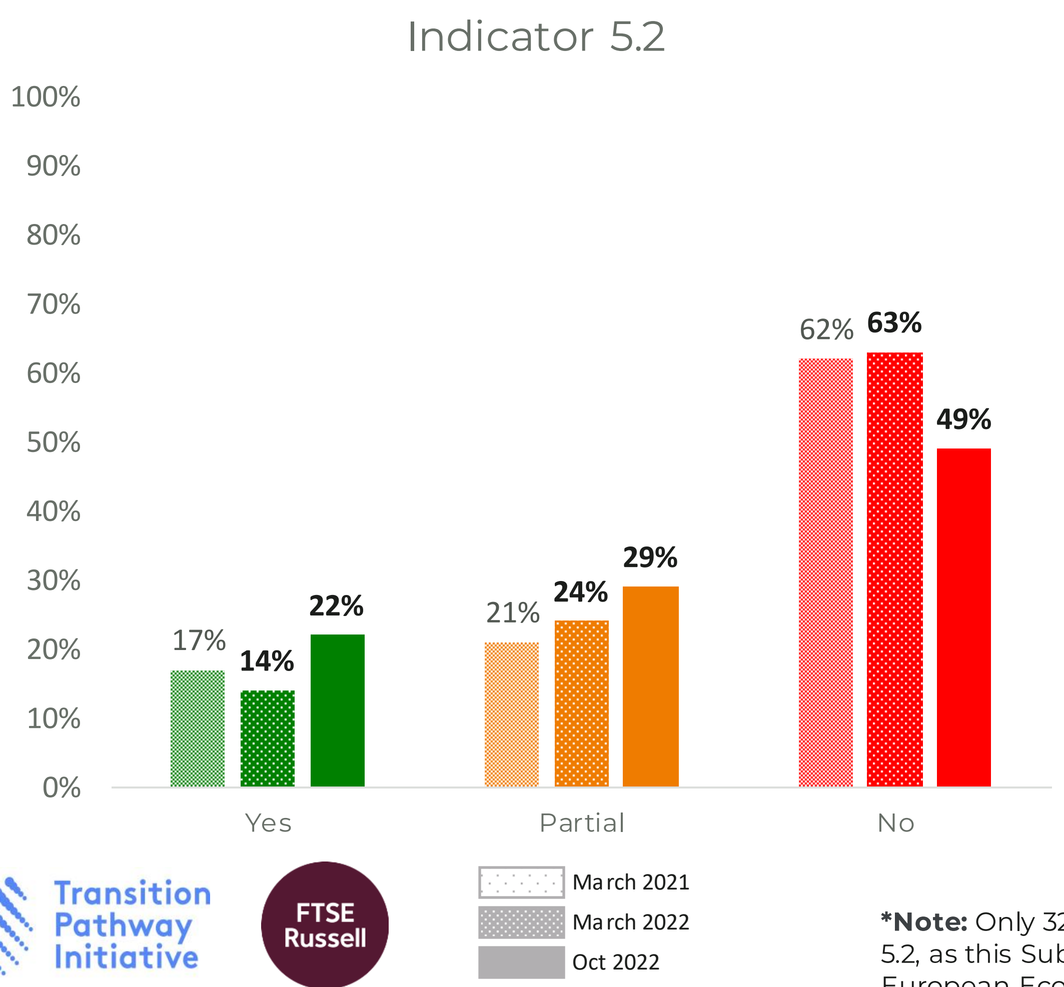
Sub-indicator 5.1 The company has a decarbonisation strategy for its long- and medium-term GHG reduction targets



- **Over half (53%) of focus companies** now score 'Yes' or 'Partial' on Sub-indicator 5.1, meaning they have identified a set of actions they intend to take to achieve their targets (Metric 5.1a). However, **only 19%** of focus companies quantify how much each action will contribute to these targets (Metric 5.1b).
- Whilst promisingly more companies are establishing **medium-term** quantitative strategies, fewer companies have developed transition plans that quantify how each measure will address their **long-term** targets.
- Investor engagement should encourage companies to publish concrete decarbonisation strategies that **quantify, not just describe, how each action will address the company's significant sources of emissions** and contribute to emissions targets, specifically in the long-term.

Indicator 5.2 – Decarbonisation strategy (target delivery)

Sub-indicator 5.2 The company's decarbonisation strategy specifies the role of 'green revenues' from low carbon products and services



- **22% of the 51 focus companies** assessed on this Sub-indicator* are now fully compliant with both Metrics, **with a marked improvement of 8% from March 2022.** This demonstrates companies are increasingly recognising the need to expand the share of green revenues in their overall sales.
- Progress from the March 2022 Benchmark can be mainly attributed to companies from the energy and industrials sectors that are starting to disclose 'green revenues' or set targets. However, **around half (49%) of the European companies assessed do not meet any criteria of this Sub-indicator.**
- Investor engagement should focus on encouraging European companies to detail their green products and services, including its share of total revenue, and disclose whether they target increased 'green revenues'.

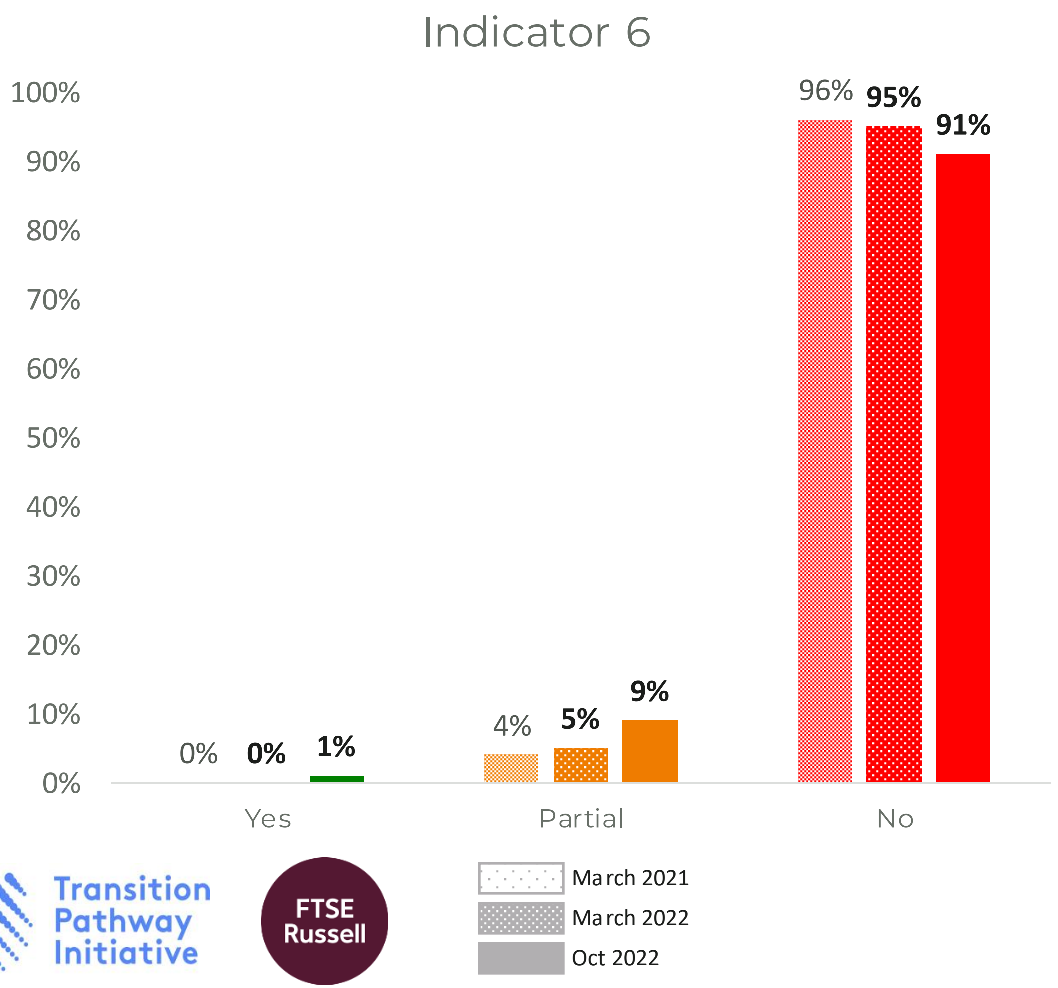
Transition Pathway Initiative

FTSE Russell

***Note:** Only 32% of companies (51) are assessed against Sub-indicator 5.2, as this Sub-indicator only assesses companies headquartered in the European Economic Area (EEA) or the United Kingdom (UK).

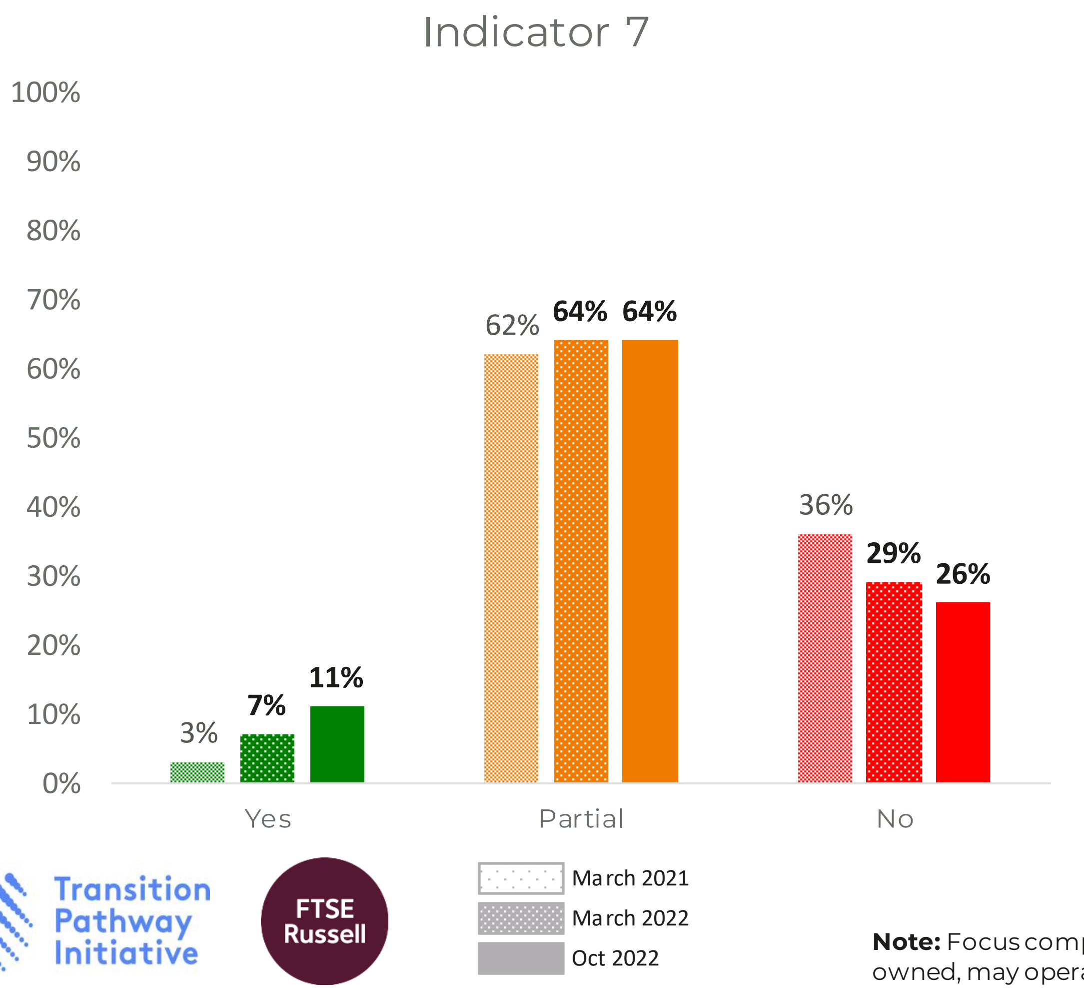
Climate Action 100+
Global Investors Driving Business Transition

Indicator 6 – Capital alignment



- **Partial scores on Indicator 6 have almost doubled,** mainly due to the increased number of companies committing to align planned CAPEX with their long-term GHG reduction targets (Metric 6.1a).
- However, most focus companies (90%+) still fail to provide explicit commitments to align their CAPEX plans with their long-term GHG reduction targets, or to phase out planned expenditure in unabated carbon intensive assets or products (Metric 6.1a).
- Whilst companies have a long way to go in making meaningful progress on decarbonising their future investments, a critical first step in investor engagements on this topic would be for companies to make an **explicit commitment to align capital expenditures with long-term GHG reduction targets.**

Indicator 7 – Climate policy engagement



- **75% of focus companies meet some or all the requirements** of Indicator 7. Notably, **64% of** all focus companies disclose their trade association memberships (Metric 7.2b) and 36% list their climate-related lobbying activities (Metric 7.1b).
- Despite some progress from the energy sector, **only 23%** of all focus companies commit to align their direct lobbying activities with the Paris Agreement (Metric 7.1a), while 18% commit to ensure their trade associations are aligned (Metric 7.2a).
- Investors should encourage companies to **list all their lobbying activities and trade association memberships through their own disclosures,** and commit to align direct and indirect lobbying activities with the Paris Agreement. This would help set companies on the path to reviewing the alignment of trade associations they are a member of (Metric 7.3).

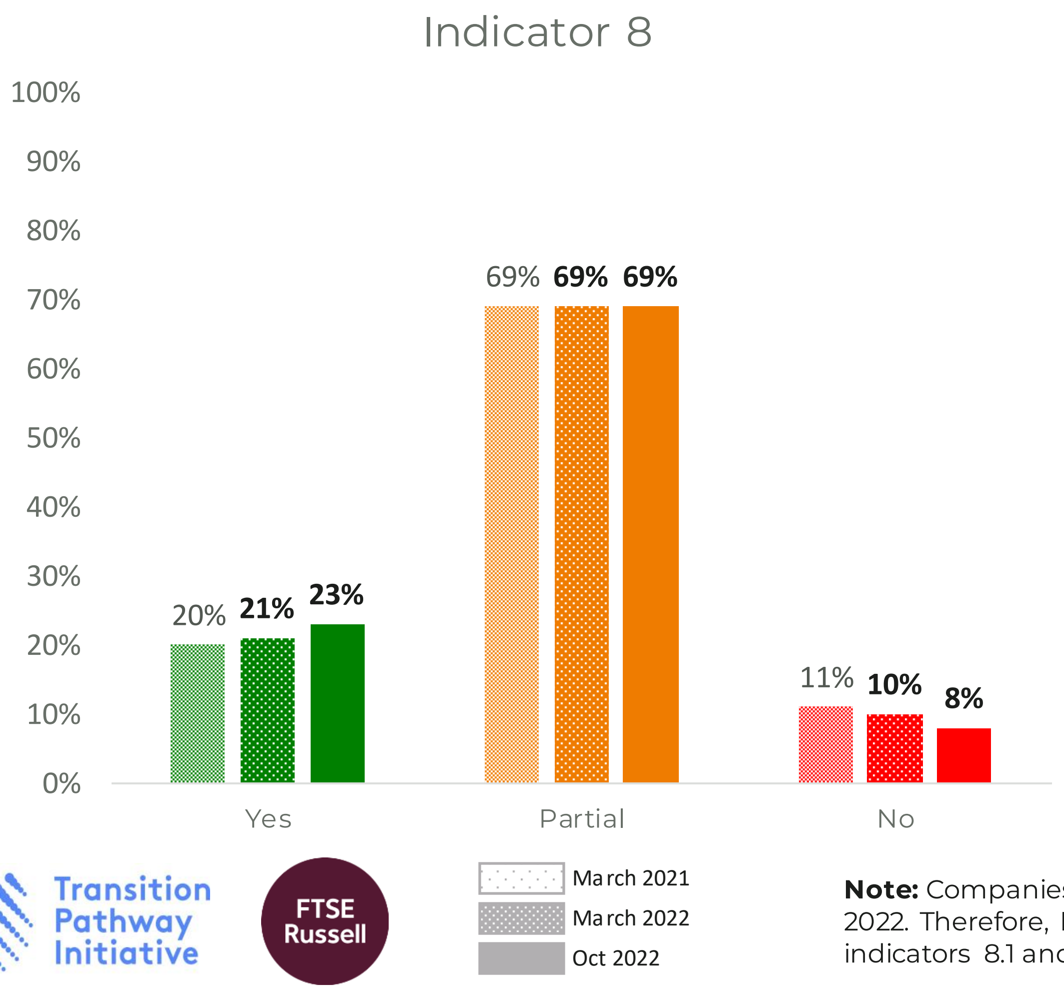
Transition Pathway Initiative

FTSE Russell

Note: Focus companies in Asian and emerging markets, which are predominantly state-owned, may operate in different local legal frameworks for lobbying and climate policy engagement. These should be considered when reviewing the results of Indicator 7.

Climate Action 100+
Global Investors Driving Business Transition

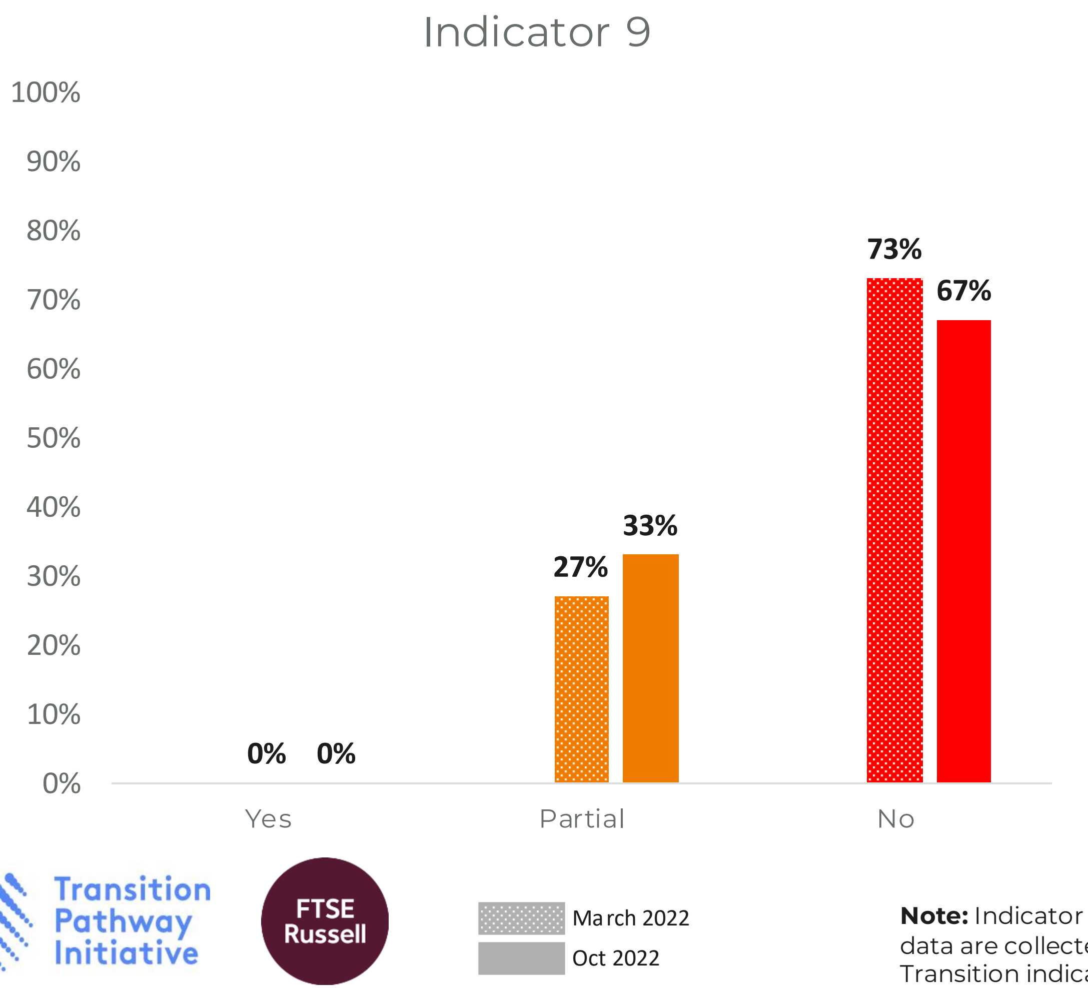
Indicator 8 – Climate governance



- **Only 23% of focus companies meet all criteria on Indicator 8.** Whilst 92% of all focus companies have a board-level committee with responsibility for climate change (Metric 8.1a), only 58% have named someone at the board-level with such responsibility (Metric 8.1b).
- Most companies are still failing to meet the criteria for Metric 8.2b on ambitious remuneration policies tied to companies' GHG targets.
- Investor engagement should ensure that there is a senior executive with responsibility for climate change performance, and that companies explicitly link this to executive remuneration.

Note: Companies were not publicly assessed on Sub-indicator 8.3 in 2021 or 2022. Therefore, Indicator 8 scores have been calculated based on Sub-indicators 8.1 and 8.2

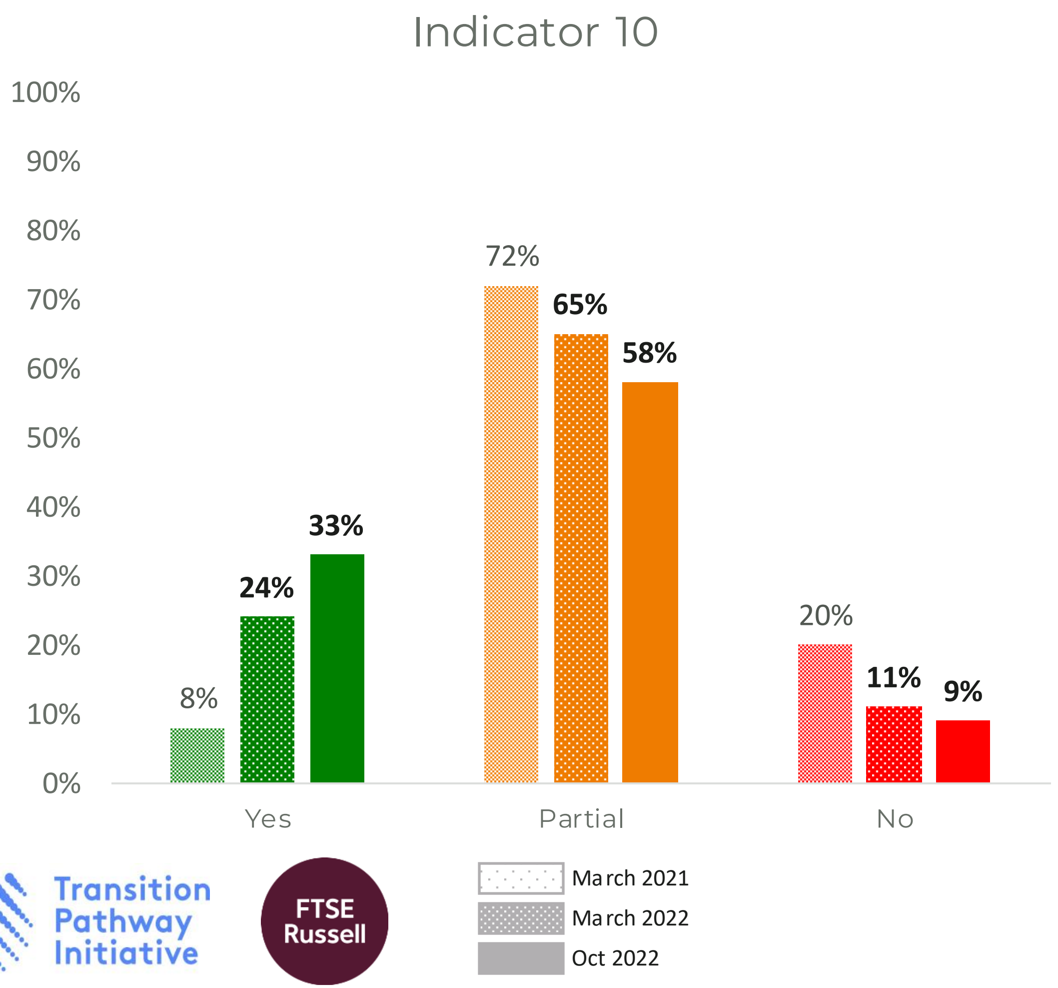
Indicator 9 – Just Transition [Beta]



- Just Transition is slowly moving up the corporate agenda, as exemplified by a **marked improvement of 6% of focus companies scoring 'Partial'** on this Indicator since the March 2022 assessments. However, no company has yet fully met all criteria for this indicator.
- Of the 52 focus companies (33%) which score 'Partial', **only 30 made a formal statement** recognising the Just Transition as a relevant issue for their business (Metric 9.1a) without meeting any of the other Metrics of Indicator 9.
- Although more focus companies are formally acknowledging the importance of the issue, investors should seek an accompanying plan committing companies to decarbonise in line with Just Transition principles and in coordination with relevant stakeholders. This includes recognising an established definition of Just Transition such as that provided by the ILO guidelines.

Note: Indicator 9 is a beta Indicator and is currently under development. Feedback and data are collected to inform further development. Individual company scores on the Just Transition indicator will not be released publicly until 2023.

Indicator 10 – TCFD Disclosure



- TCFD has gone mainstream. There is a high level of commitment to the basic aspects of the TCFD framework (91% score 'Yes' or 'Partial'). However, only **a third of the focus companies (33%) meet all the criteria of this Indicator** by supporting the TCFD principles and employing climate-scenario planning.
- Increasingly more companies are starting to use quantitative scenario planning (Metric 10.2a), though progress is limited by companies that are not yet conducting comprehensive company-wide climate planning that uses 1.5°C scenarios (Metric 10.2b).
- Investor engagement should focus on encouraging companies to provide more detailed scenario planning, **including 1.5°C analysis**, to give a complete picture of the risks and opportunities posed by climate change.

Transition Pathway Initiative
FTSE Russell
Climate Action 100+
Global Investors Driving Business Transition

Alignment assessments

About the Alignment Assessments

- The Alignment Assessments complement the Disclosure framework. Whilst the Disclosure Framework indicators evaluate the adequacy of corporate disclosure, Alignment Assessments evaluate the alignment of company actions with the goals of Climate Action 100+ and the Paris Agreement. These assessments come from different data providers of the Climate Action 100+ Technical Advisory Group:

  - **Capital allocation alignment for utilities and oil & gas** – Assessed by Carbon Tracker Initiative (CTI)
  - **Capital allocation alignment for utilities, autos, steel, cement and aviation** – Assessed by Rocky Mountain Institute (RMI)
  - **Climate policy engagement alignment** – Assessed by Influence Map (IM)
  - **Climate Accounting and Audit Indicator** – Assessed by Carbon Tracker Initiative (CTI) and Climate Accounting and Audit Project (CAAP)

Capital allocation alignment for utilities and oil & gas focus companies

Capital alignment of utilities, and oil & gas focus companies

These assessments measure:

- **Upstream Oil and Gas** – climate scenario analysis using classic supply and demand curves to illustrate what proportion of potential capex will still be needed in a low carbon world, and what proportion is on high-cost projects that will not. Investment in the latter runs a greater risk of destroying value.

- **Coal and Gas-Powered Generation** – climate scenario analysis using classic supply and demand curves to illustrate the relative cost competitiveness of coal or gas-fired generation assets, hence which plants will stay economic for longer in a low carbon world that requires an almost a complete phase-out of coal and gas-fired generation. Investment in the higher cost generation runs a greater risk of destroying value.

See Carbon Tracker's detailed methodology on the Climate Action 100+ website for more information.

Capital alignment of upstream oil and gas focus companies

1) **61%** of oil and gas focus companies continued to sanction new upstream oil & gas projects that are inconsistent with climate constrained scenarios (i.e., B2DS*) during 2021 – *unchanged from the March 2022 Benchmark.*

2) **55%** of un-sanctioned oil and gas focus company capex opportunities are inconsistent with IEA's B2DS – *an improvement from 66% in the March 2022 Benchmark (67% when including Russian companies).*

- All October 2022 metrics exclude Russian companies: Gazprom, Lukoil and Rosneft

3) **43%** of focus companies disclosed their commodity price assumptions used for asset impairment testing – *a slight improvement from 40% of companies in the March 2022 Benchmark (same when including Russian companies).*

4. **44%** lower oil and gas production in the 2030s against a 2022 baseline for the Climate Action 100+ oil and gas focus companies. The Net Zero proxy assumes no new oil and gas project sanctioning is allowed and existing production is run off – *worsening from 36% in March 2022 Benchmark (33% when including Russian companies).*

Carbon Tracker Initiative

* The International Energy Agency's Beyond 2 Degrees Scenario (B2DS) is a rapid-transition scenario equivalent to an estimated 1.75°C of global warming in this century (with an approximate 50% probability). Net zero emissions would be reached by 2060.

Climate Action 100+ Global Investors Driving Business Transition

Capital alignment of upstream oil and gas focus companies

CTI's recommended implications for engagement

- All relevant focus companies have unsanctioned oil and gas projects inconsistent with Paris Agreement-aligned scenarios and two-thirds of companies have sanctioned inconsistent projects in 2019, 2020 and 2021.
- Thus, investors should engage companies on upstream oil and gas capital allocation plans to better understand:
  - What strategic planning and scenario analyses are management using to inform their net-zero emission transition plan - and if no net zero plan exists, why not?
  - How is management using climate constrained and net zero scenarios to evaluate new upstream investment decisions - and if they're not using these, why not?
  - Has management tested the consequences and sensitivities of investment decisions and return on invested capital etc., if they applied a $50/ ton or $100/ton carbon price threshold into their analysis?
  - What incentive structures have the board of directors put in place to ensure that management's strategic planning is in alignment with the company's stated climate targets and ambitions?

Capital alignment of utilities focus companies

Coal phase-out

- **8 out of 32** electric utility focus companies have announced a full phase-out of coal generation units aligned with a Paris Agreement pathway (B2DS*) – *decline from 10 companies** in March 2022 Benchmark.*
- **5** have announced a full phase-out that is inconsistent with a Paris pathway (B2DS) – *improvement from 2 companies in March 2022 Benchmark.*
- **19** have either announced a partial phase-out or provided insufficient information to assess – *improvement from 20 companies in March 2022 Benchmark.*
- **34%** of focus companies' coal generation capacity are inconsistent with a Paris Agreement pathway (B2DS) – *improvement from 36% in March 2022 Benchmark.*

Gas phase-out

- **No** electric utility focus company owning gas capacity has announced a full phase-out of all their gas units – *unchanged from March 2022 Benchmark*
- **Zero** have announced a full phase-out that is inconsistent with a Paris Agreement pathway (B2DS) – *unchanged from March 2022 Benchmark*
- **31** have either announced a partial phase-out or provided insufficient information to assess – *unchanged from March 2022 Benchmark*
- **51%** of focus companies' gas generation capacity are inconsistent with a Paris Agreement pathway (B2DS) – *improvement from 56% in March 2022 Benchmark*

Carbon Tracker Initiative

*The International Energy Agency's Beyond 2 Degrees Scenario (B2DS) is a rapid-transition scenario equivalent to an estimated 1.75°C of global warming in this century (with an approximate 50% probability). Net zero emissions would be reached by 2060.

**Exelon, which has an aligned coal phase-out plan, was not assessed in the October 2022 Benchmark due to recent M&A activity with Constellation. NextEra was downgraded on this assessment as it has one coal plant and was impacted by other operators' plants being shut down, affecting estimated profitability.

Climate Action 100+ Global Investors Driving Business Transition

Capital alignment of utilities focus companies

CTI's recommended implications for engagement

- No electric utility focus company has announced a fully consistent phase-out plan for coal and gas generation that is aligned with a Paris Agreement pathway (B2DS*).
- Thus, investors should engage electric utility focus companies on their capital allocation plans for existing and planned new coal and gas power plants to better understand:
    - How is management planning to meet climate targets and net zero emissions commitments if they keep operating coal and gas generation capacity beyond the 2030s?
    - What strategic planning and scenario analyses is management using to inform their net-zero emissions transition plans - and if no net zero plan exists, why is management not considering a net-zero transition plan?
    - Has management tested the consequences and sensitivities of investment decisions and return on invested capital etc., if they applied a $50/ ton or $100/ton carbon price threshold into their analysis?
    - What incentive structures have the board of directors put in place to ensure that management's strategic planning is in alignment with the company's stated climate targets and ambitions?

Carbon Tracker Initiative

* The International Energy Agency's Beyond 2 Degrees Scenario (B2DS) is a rapid-transition scenario equivalent to an estimated 1.75°C of global warming in this century (with an approximate 50% probability). Net zero emissions would be reached by 2060.

Climate Action 100+ Global Investors Driving Business Transition

Capital allocation alignment for utilities, autos, steel, cement and aviation

About

These Alignment Assessments from the Rocky Mountain Institute (RMI, formerly 2 Degrees Investing Initiative) are made using the PACTA methodology, data provided by Asset Resolution and International Energy Agency (IEA) scenarios. They analyse **utility, automotive, steel, cement and aviation** focus companies' using the following metrics and data as of Q2 2022:

Utility and automotive metrics

- **Company technology mix vs. sector average:** How does each focus company's present mix of technologies compare with the sector average for each technology?
- **Technology-level IEA scenario alignment assessment:** How does a focus company's 5 year planned production *for each technology* compare with IEA climate change scenario pathways for a sector?
- **Company-level IEA scenario alignment assessment:** How does a focus company's 5 year planned production *across the technologies* compare with IEA climate change scenario pathways for a sector?

Steel, cement and aviation metrics

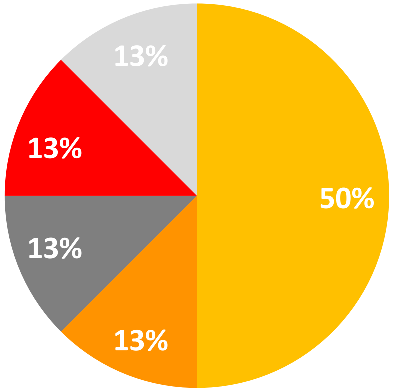
- **Company-level distance to IEA scenario alignment in 2030**: How far is each company's present emissions intensity from the IEA climate change scenario pathway target for the sector?

For more information please consult the RMI methodology documentation.

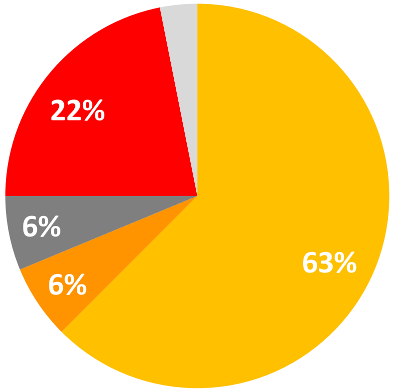
Electric utilities (30 companies)

Assessment of IEA scenario alignment at technology and company level
These metrics assess how each electric utility focus company's 5 year planned production compares with targets based on IEA climate change scenario pathways for the sector.

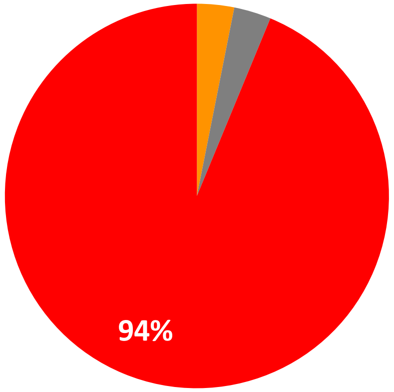
Technology-level: Coal



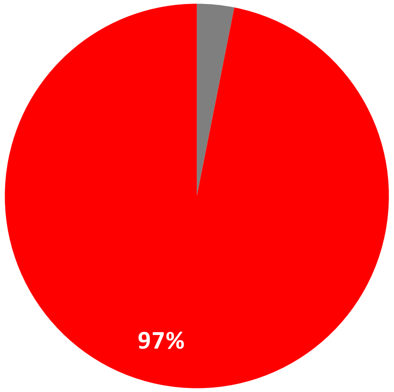
Technology-level: Gas



Technology level: Renewables



Company level: NZE technology aggregate



Technology assessment grading
Aligned to NZE <1.5°C
Close to SDS 1.5°C – 1.8°C
Above SDS >1.8°C
Significantly above SDS >2.7°C
No capacity

Company assessment grading
NZE Ahead
NZE Slightly ahead
NZE Aligned
NZE Slightly behind
NZE Behind

Electric utilities

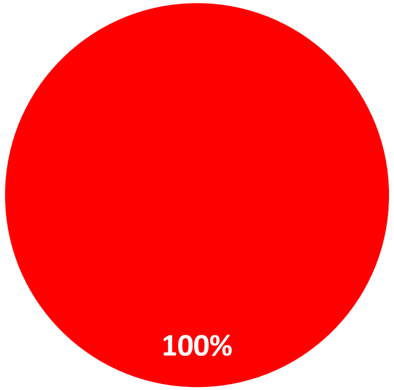
- Although there continues to be positive signs of a reduction in **coal capacity** among electric utility focus companies, ongoing attention is needed on whether this capacity is being closed down or sold off, as the latter action may not reduce CO_2 emissions in the real economy.
  - **RMI's recommended engagement focus:** Are coal capacity reductions the result of closures, mothballing* or sale of assets?
- In terms of **renewable energy capacity**, the majority of electric utility focus companies are a significant distance from aligning with a 1.5°C or even a 1.8°C global warming scenario.
- Whilst continued investment in **gas capacity** results in an alignment with a 1.5°C scenario for many focus companies, it is important that this is not at the expense of investment in renewables capacity.
- The aggregate company results show that nearly all focus companies are significantly behind the IEA's Net Zero Emissions by 2050 Scenario (NZE). This is driven by the renewable energy results, the contribution of which are weighted to reflect the significant increase in capacity anticipated by the IEA NZE scenario.
  - **RMI's recommended engagement focus:** Are capital commitments to the buildout of renewable energy capacity being prioritised? Will this be at the scale anticipated by the NZE scenario?

*Mothballing is the shutdown and then maintenance of a plant in a way that leaves open possible future use.

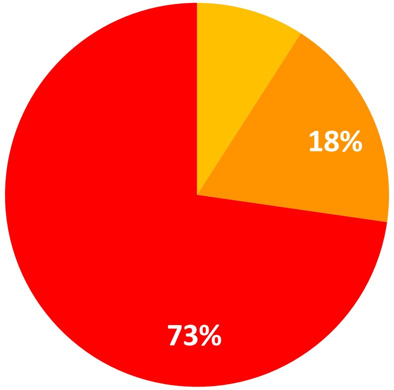
Autos (12 companies)

Assessment of IEA scenario alignment at technology and company level
These metrics assess how each autos focus company's 5 year planned production compares with targets based on IEA climate change scenario pathways for the sector.

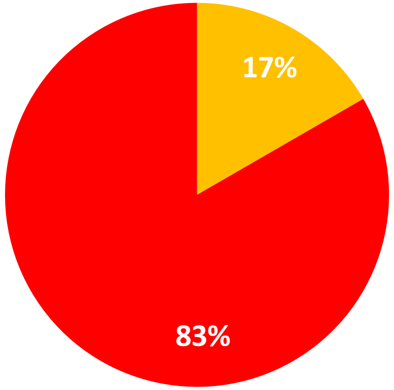
Technology: ICE



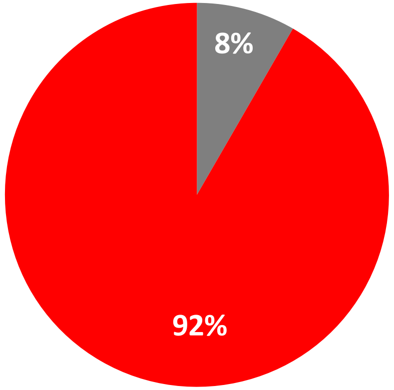
Technology level: Hybrid



Technology: Electric Vehicles



Company: NZE technology aggregate



Technology assessment grading
Significantly below NZE <1.5°C
Below NZE <1.5°C
Aligned with NZE 1.5°C
Above NZE >1.5°C
Significantly above NZE >1.5°C

Company assessment grading
NZE Ahead
NZE Slightly ahead
NZE Aligned
NZE Slightly behind
NZE Behind

RMI

Climate Action 100+
Global Investors Driving Business Transition

Autos (12 companies)

Production of Internal Combustion Engines (ICEs) remains high compared to the phase down pathway anticipated by the IEA's Net Zero Emissions by 2050 Scenario (NZE). Autos focus companies will need to accelerate the phase out of ICE vehicle production by driving growth in the market for EVs and plug-in hybrids.

- **RMI's recommended engagement questions for focus companies:** What is the company strategy to transition from ICE vehicles to a combination of electric and hybrid vehicles? When do autos focus companies anticipate their peak ICE production to occur?

The majority of focus companies are significantly misaligned in their plans for electric vehicle production, which the IEA's NZ scenario indicates will require a substantially greater ramp up of production than for hybrids.

- **RMI's recommended engagement questions for focus companies:** What are the company's capital commitments and production readiness to mainstream EV's?

The NZE hybrid category is focused solely on plug-in technologies, lending this technology greater importance than mild hybrids.

- **RMI's recommended engagement questions for focus companies:** What are the company's plans to shift from mass production of mild hybrid to plug-in hybrid?

Steel, cement and aviation companies

Assessment of each focus company's distance in Q2 2022 to IEA scenario alignment in 2030.

These metrics assess how much each company needs to reduce its emissions intensity in order to achieve the 2030 IEA Net Zero Emissions by 2050 Scenario (1.5°C outcome) for steel and cement and the IEA Beyond 2° Scenario (1.75°C outcome) for aviation.

Steel (7 companies)*

- All seven steel focus companies are a **moderate distance** to being aligned, meaning they are on the pathway to 1.5°C but still need to make a further 15-36% reduction in emissions intensity by 2030.

Cement (11 companies)*

- All 11 cement focus companies are a **significant distance** to being aligned, meaning they are not yet on the pathway to 1.5°C and will need to make further reductions in their emissions intensity of >20% by 2030.

Aviation (5 companies)

- All 5 airlines focus companies are a **significant distance** to being aligned, meaning they are not yet on the pathway to 1.75°C and will need to make further reductions in their emissions intensity of >30% by 2030.

* Note that for steel and cement focus companies, the March 2022 iteration of the Benchmark assessed companies against the IEA's Beyond 2°C Scenario (B2DS), while the October 2022 iteration assesses companies against the IEA's Net Zero by 2050 Scenario (NZE). Company scores are therefore not directly comparable between benchmark iterations. For the steel sector, the emissions intensity threshold in the NZE is notably higher than in the B2DS pathway, hence why steel focus companies are shown to be only a 'Moderate Distance' to alignment with NZE in October 2022 while they were a 'Significant Distance' to alignment with B2DS in March 2022.

RMI

Climate Action 100+
Global Investors Driving Business Transition

Steel, cement and aviation companies

- Though there is still some way for them to go, **steel focus companies** are on the decarbonisation pathway defined by the IEA´s NZE 1.5°C scenario, meaning they are ahead of the baseline emissions intensity for the sector in 2021.*
- The **cement and aviation focus companies** are not yet on the decarbonisation pathway defined by the IEA's NZE 1.5°C scenario (cement) and IEA's B2DS 1.75°C scenario (aviation), meaning they are behind the baseline emissions intensity for the sector in 2021.
  - **RMI's recommended engagement focus:** Meeting the 2030 scenario targets will require major capital investments in plants and equipment, some of which may be still under development. Possible questions to bring to engagements include:
    - What combination of investments are planned in order to converge with the targets set by the IEA scenarios and by when?
    - How are companies engaged in the technological developments required to realise the required emissions reductions?

* Note that for steel and cement focus companies, the March 2022 iteration of the Benchmark assessed companies against the IEA's Beyond 2°C Scenario (B2DS), while the October 2022 iteration assesses companies against the IEA's Net Zero by 2050 Scenario (NZE). Company scores are therefore not directly comparable between benchmark iterations. For the steel sector, the emissions intensity threshold in the NZE is notably higher than in the B2DS pathway, hence why steel focus companies are shown to be only a 'Moderate Distance' to alignment with NZE in October 2022 while they were a 'Significant Distance' to alignment with B2DS in March 2022.

Climate policy engagement alignment

Climate policy – direct engagement

- InfluenceMap's 'Organisation Score' measures how supportive or obstructive a company's direct engagement is towards Paris-aligned climate policy. It is applicable to all focus companies and sectors.

  Please Note: See detailed methodology on Climate Action 100+ website for more information.

- InfluenceMap has expanded its methodology to include an assessment of corporate engagement on land-use related climate policy. This is also applicable to all focus companies and sectors.

  Please note: the land-use analysis is being integrated into InfluenceMap's system gradually with a low weighting, so the impact on company scores under the October 2022 Benchmark is minimal - the impact of this analysis will increase over time.

Climate policy – direct engagement

Of the 159 focus companies assessed under the October 2022 Benchmark:

- 16 focus companies have **broad alignment** between their direct climate policy engagement and the Paris Agreement (10%)
- 95 focus companies have **mixed engagement** with Paris-aligned climate policy (60%)
- 40 focus companies have **misalignment** between their direct climate policy engagement and the Paris Agreement (25%)
- 8 focus companies have **low measurable engagement** with climate-related policy and did not receive a score under this Assessment (5%)

Climate policy – direct engagement

In line with enhanced investor expectations under the Global Standard on Responsible Climate Lobbying, InfluenceMap encourages investors to prioritise the following asks for focus companies:

- **Disclose** the company's positions on, and engagement with, all climate-related policies which are material to the sector and/or region in which it operates
- **Publish** a detailed annual review to assess alignment between its own climate policy engagement and the 1.5^{0}C higher-ambition goal of the Paris Agreement
- **Show** meaningful action to: (1) Increase transparent positive advocacy across a range of climate policy issues; (2) Eliminate direct policy engagement that would weaken or undermine climate ambition; (3) Ensure policy positions on technology and energy pathways are aligned with IPCC science

InfluenceMap

Climate Action 100+
Global Investors Driving Business Transition

Climate policy – indirect engagement

- InfluenceMap's 'Relationship Score' measures how supportive or obstructive a company's indirect engagement via industry associations is towards Paris-aligned climate policy. It is applicable to all focus companies and sectors.

  Please Note: See detailed methodology on Climate Action 100+ website for more information.

- InfluenceMap's database assesses around 200 industry associations. The 'Relationship Score' is an aggregate assessment of a company's industry associations – this includes an assessment of the strength of the relationships between a company and each of its industry associations.

InfluenceMap

Climate Action 100+
Global Investors Driving Business Transition

Climate policy – indirect engagement

Of the 159 focus companies assessed under the October 2022 Benchmark:

- 6 focus companies have **broad alignment** between the Paris Agreement and the climate policy engagement of their industry associations (4%)
- 70 focus companies have **mixed indirect engagement** with Paris-aligned climate policy via their industry associations (44%)
- 62 focus companies have **misalignment** between the Paris Agreement and the climate policy engagement of their industry associations (39%)
- 21 focus companies have **no significant links to industry associations** currently covered by InfluenceMap's database and did not receive a score under this Assessment (13%)

Climate policy – indirect engagement

In line with enhanced investor expectations under the Global Standard on Responsible Climate Lobbying, InfluenceMap encourages investors to prioritise the following asks for focus companies:

- **Publish** a detailed annual review to assess alignment between the climate policy engagement of the company's industry associations and the 1.5^{o}C higher-ambition goal of the Paris Agreement
- **Implement** robust and transparent processes to assess, identify and report on misalignments with industry associations which continue to hold back ambitious climate policy
- **Show** clear evidence of action to address material cases of misalignment with industry associations, including strict escalation strategies for regressive groups that show limited progress in reforming their real-world climate policy engagement

Climate policy engagement – progress since March 2022

	Organisation Score (Direct)		Relationship Score (Indirect)	
	March 2022	October 2022	March 2022	October 2022
Aligned	9%	10%	2%	4%
Mixed Engageme nt	54%	60%	34%	44%
Misaligned	29%	25%	43%	39%
Not Scored	8%	5%	20%	14%

- There has been some progress between the March 2022 Benchmark and the October 2022 Benchmark – **9 companies** have improved their Organization Scores, while **17 companies** have improved their Relationship Scores (i.e. moved from Red to Amber or Amber to Green under the scoring system)
- However – **only a small proportion of companies have aligned** their direct (10%) or indirect (4%) climate policy engagement practices with Paris Agreement-aligned policy and regulatory pathways

Climate Accounting and Audit

Climate Accounting and Audit Alignment Assessment

The Climate Accounting and Audit Alignment Assessment (CAAA) considers disclosures within focus company financial statements (and audit reports thereof). These assessments were created as part of a project led by Carbon Tracker Initiative (CTI) in collaboration with the Climate Accounting and Audit Project (CAAP)*

Key information:

- **CTI reviewed 152 companies for the October 2022 Benchmark assessments**
- CTI will review the remaining seven focus companies by the end of 2022

These are "Provisional" assessments for October 2022 as the methodology is subject to change in future iterations of the Benchmark. View the full methodology **here.**

*CAAP is an informal team of accounting and finance experts drawn from the investor community and commissioned by the PRI.

Note: *Due to the timing of their reporting periods and publication of their relevant reports, only 152 of the Climate Action 100+ focus companies have been included in this analysis. The analysis also excludes five Russian companies for which investors have paused active engagement until further notice, Oil Search (which merged with Santos in December 2021), and Exelon (which separated into two businesses in February 2022 but is not being assessed as it has not disclosed enough information to make a Benchmark assessment engagement- or decision-useful for investors.).*

About the indicator

The Climate Accounting and Audit Alignment Assessments are comprised of three sub-indicators:

1. The audited financial statements and notes thereto incorporate material climate-related matters.

1a. The financial statements demonstrate how material climate-related matters are incorporated.

1b. The financial statements disclose the quantitative climate-related assumptions and estimates.

1c. The financial statements are consistent with the company's other reporting.

2. The audit report demonstrates that the auditor considered the effects of material climate-related matters in its audit.

2a. The audit report identifies how the auditor has assessed the material impacts of climate-related matters.

2b. The audit report identifies inconsistencies between the financial statements and 'other information.'

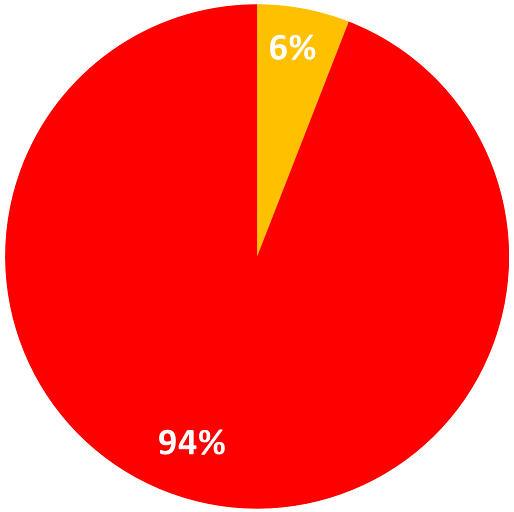
3. The audited financial statements and notes thereto incorporate the material impacts of the global drive to net-zero greenhouse gas (GHG) emissions by 2050 (or sooner) which for the purpose of this assessment is considered to be equivalent to achieving the Paris Agreement goal of limiting global warming to no more than 1.5°C.

3a. The financial statements use, or disclose a sensitivity to, assumptions and estimates that are aligned with achieving net-zero GHG emissions by 2050 (or sooner).

3b. The audit report identifies that the assumptions and estimates that the company used were aligned with achieving net zero GHG emissions by 2050 (or sooner) or provides a sensitivity analysis on the potential implications.

Climate accounting and audit: overall scores to date

October 2022 Benchmark Scores*



October 2022 Benchmark Assessment (Fiscal Year 2021 reporting):

- **No company scored 'Yes' overall.** In comparison to previous years, more companies and auditors included commentaries–on climate matters. However, without providing comprehensive evidence of consideration, their disclosures remained insufficient, and they did not meet the methodology requirements.
- **Nine companies of 152 achieved overall 'Partial' scores**. Six were the same as in March: BHP Group Limited, BP plc, Glencore PLC, National Grid PLC, Rio Tinto Limited, and Shell plc plus an additional three: Eni SpA, Equinor ASA and Rolls-Royce Holdings plc. Of those:
  - In the March 2022 Benchmark assessments, Rio Tinto avoided an overall 'No' score in because its auditor's (KPMG) score was 'Yes' against metric 2a. For the October 2022 assessments it improved by achieving a 'Yes' on metric 1a, in addition to its auditor again achieving a 'Yes' score for 2a.
  - Shell's auditor (EY) went from a 'Yes' score on Sub-indicator 2 in the March 2022 assessments to a 'Partial' score in the October 2022 assessment. Unlike the prior year, in the October 2022 assessments it failed to clearly indicate that Shell's assumptions and estimates were not consistent with Shell's net zero targets.

* Of 152 companies assessed

Carbon Tracker Initiative

Climate Action 100+ Global Investors Driving Business Transition

Climate accounting and audit: Nine partial scores in October 2022 assessments

Table 1 – Detail of metric scores for relevant companies

Companies	Auditors	Overall scores	Financial statements				Audit report			Alignment with net zero by 2050		
			SI 1	1a	1b	1c	SI 2	2a	2b	SI 3	3a	3b
BHP Group	EY	Partial	Partial	Yes	No	No	No	No	No	No	No	No
BP plc	Deloitte	Partial	Partial	Yes	No	No	Yes	Yes	Yes	No	No	No
Eni SpA	PwC	Partial	No	No	No	No	No	No	No	Yes	Yes	Yes
Equinor ASA	Deloitte	Partial	No	No	No	No	No	No	No	Yes	Yes	Yes
Glencore plc	Deloitte	Partial	No	No	No	No	Partial	Yes	No	Yes	Yes	Yes
National Grid plc	Deloitte	Partial	Partial	No	Yes	No	Partial	Yes	No	No	No	No
Rio Tinto Group	KPMG	Partial	Partial	Yes	No	No	Partial	Yes	No	No	No	No
Rolls-Royce Holdings plc	PwC	Partial	Partial	Yes	No	No	Partial	Yes	No	No	No	No
Shell plc	EY	Partial	No	No	No	No	Partial	Yes	No	No	No	No

Climate accounting and audit: engagement implications

Most companies do not fully consider material climate matters when preparing their financial statements (and their auditors, in their audits thereof) -

- Between the March 2022 and October 2022 Climate Action 100+ Benchmark assessments, CAAP noted a slight improvement in disclosures from both companies and their auditors
- However, only a small minority of focus companies scored better than 'No' on any of the metrics that make up this assessment
- Pease note these results were in part due to the strict Yes/No binary scoring system.

Climate Action 100+ investors signatories should continue to:

- Engage focus companies and **establish expectations of disclosures** around climate-related matters for future financial statements and proxy seasons, and on an ongoing basis
- **Communicate expectations to auditors**, directly and via proxy voting
- Work to ensure **proper governance** of these issues through communication with audit committees or others in charge of oversight.

Thank You

Contact: benchmark@climateaction100.org

Acknowledgements

- Leading climate research and data organisations, including Transition Pathway Initiative (TPI) supported by the Grantham Research Institute on Climate Change and the Environment at the London School of Economics, FTSE Russell, Chronos Sustainability, Carbon Tracker Initiative, Rocky Mountain Institute, and InfluenceMap have been central to the overall development of the research included within this document. The Benchmark Disclosure Framework was undertaken through the leadership and support of the Climate Action 100+ Steering Committee, and the collaboration of investor signatories and experts from the investor networks of AIGCC, Ceres, IIGCC, IGCC, and PRI.
- For their contribution to the research included within this particular document, please join us in thanking the below list of people:

Climate Action 100+ Core Benchmark Team

Sophie Barnes, Senior Programme Manager, IIGCC

Sarah Clark-Hamel, Senior Manager, Ceres

Marshall Geck, Senior Specialist, Stewardship, PRI

Kerri-Anne Hempshall, Benchmark Manager (CA100+), PRI

Laura Hillis, Director, IGCC

Cosmo Hui, Manager, Engagement, AIGCC

Clare Richards, Programme Director, IIGCC

Kate Donnelly, Engagement Analyst, IGCC

Olivia Thornton, Communications Manager (CA100+), IIGCC

Ross Gillam, Head of Media Relations, IIGCC

Livia Ross, Specialist, Stewardship, PRI

Disclosure Framework Assessments

Shafaq Ashraf, Research Analyst, TPI

Beata Bienkowska, Deputy Research and Project Lead, TPI

Valentin Jahn, Climate Action 100+ Project Manager & Lead Research Analyst, TPI

Jaakko Kooroshy, Global Head of SI Research, FTSE Russell

Felix Fouret, Senior SI Analyst, FTSE Russell

Issam Jamaleddine, Research Analyst, TPI

Jared Sharp, Research Analyst, TPI

Pippa Lockwood, Research Analyst, TPI

Alignment Assessments

Joe Brooks, Program Manager, InfluenceMap

Ed Collins, Director, InfluenceMap

Henrik Jeppesen, Head of Investor Outreach, Carbon Tracker

Rob Schuwerk, Executive Director, Carbon Tracker

Barbara Davidson, Head of Accounting, Audit, and Disclosure, Carbon Tracker

Tino Gonese, Associate Analyst, Accounting, Audit, and Disclosure, Carbon Tracker

Sue Harding, Harding Analysis

Nicholas Dodd, Senior Associate, Rocky Mountain Institute PACTA

Climate Action 100+
Global Investors Driving Business Transition

Appendix

Disclosure Framework: Sector classification & Scope 3 emissions application*

Cluster	Sector	Scope 3 applicable?
Energy	Oil and gas	Yes (use of sold product)
	Oil and gas distribution	Yes (use of sold product)
	Electricity utilities	Utilities with oil/gas distribution businesses (use of sold product from distribution businesses)
	Coal Mining	Yes (use of sold products)
Transport	Autos	Yes (use of sold products)
	Airlines	No
	Shipping	No
	Other Transport	Yes (use of sold products)

Cluster	Sector	Scope 3 applicable?
Industrials	Aluminum	No
	Cement	No
	Steel	No
	Chemicals	Yes (purchased goods and services and use of sold products)
	Paper	No
	Diversified Mining	Yes (processing of sold products; for coal manufacturers also use of sold products)
	Other industrials	On a case by case basis (non-electricity use of sold product)
Consumer goods & services	Consumer goods and services	Yes (purchased goods and services)

Transition Pathway Initiative

FTSE Russell

* Relevant to criteria for Indicators 1, 2, 3, 4 and 5.

Climate Action 100+
Global Investors Driving Business Transition

Climate Accounting and Audit: Example "Yes" metric scores – Financial statements (October 2022 Assessments)

Metric 1a: Financials demonstrate how material climate-related matters are incorporated.	
BP plc / Oil & Gas • Indicated consideration climate change/the transition to a low carbon economy when preparing its financial statements, including commodity prices and remaining useful lives. • Explained the impact of these considerations on its relevant and related assets and liabilities (e.g. PPE impairment, asset lives and decommissioning provisions)	**Rolls- Royce/ Other Transport** • Referenced climate matters and considered their impact on relevant items (e.g. PP&E, programme contracts, inventories) • It discussed in detail how it determined that its energy transition considerations had no material impact on relevant assets and liabilities.

Metric 1b: Financials disclose the quantitative climate-related assumptions and estimates.
National Grid / Electric Utilities • As a rate-regulated entity, National Grid provided the relevant quantitative information to understand the impact of climate on its business-namely: weighted average remaining useful lives for fossil-fuel related assets. • It also indicated consideration of the energy transition/ emissions when assessing the remaining lives.

Climate Accounting and Audit: Example "Yes" metric scores – Audit reports (October 2022 Assessments)

Metric 2a: Audit report identifies how the auditor has assessed the material impacts of climate-related matters.		
Deloitte /bp Deloitte's considerations of the energy transition when assessing relevant Key Audit Matters (KAMs) included **challenging management's judgments, evaluating management assumptions** for each KAM and considering their **reasonableness in the face of climate change and bp's climate ambitions**. It also used its **own climate specialists**.	**PwC /** Rolls-Royce PwC considered the impact of climate matters on Long term contract accounting /associated provisions and Deferred tax assets KAMs, including the **assumptions and estimates used by Rolls-Royce for these items** such as the **risk of airlines being parked as a result of climate change** (e.g. impacts on Engine Flying Hours).	**Deloitte/**National Grid Deloitte's considerations included the **impact of climate change on the PP&E KAM**. It used **sustainability specialists and challenged management assumptions** in the face of climate risks and **climate related legislative developments for US rate-regulated utilities.**

Metric 2b: The audit report identifies inconsistencies between the financial statements and 'other information
Deloitte/bp Deloitte assessed **whether management's forecasts were consistent with bp's strategy** (-40% production by 2030). As part of this, Deloitte considered whether the progression of bp's projects would be inconsistent with this reduction and other elements of its strategy such as bp's net zero carbon aims, and its 'no exploration in new countries' commitment. Deloitte **concluded that the forecasts were not "consistent in aggregate** because bp expects to dispose of certain non-core assets in future periods".

Carbon Tracker Initiative

Climate Action 100+ Global Investors Driving Business Transition

Climate Accounting and Audit: Example "Yes" metric scores – Alignment with drive to net zero October 2022

Entity/ Sector	Metric 3a: Financials use, or disclose a sensitivity to, assumptions and estimates that are aligned with achieving net-zero GHG emissions by 2050 (or sooner).	Metric 3b: Audit report identifies that the assumptions and estimates that the company used were aligned with achieving net zero GHG emissions by 2050 (or sooner) or provides a sensitivity analysis on the potential implications
Eni/PwC **Oil & Gas**	• Eni performed a sensitivity of its oil and gas CGUs' impairment assessments to IEA NZE commodity and CO_2 prices. • It concluded that it had headroom in excess of 30% compared to the book value of its oil and gas activities across all relevant geographic areas.	• PwC did not comment on whether Eni's assumptions and estimates were aligned with this drive, but indicated that it verified Eni's sensitivity analysis.
Equinor/EY **Oil & Gas**	• Equinor provided a sensitivity analysis to using IEA NZE commodity and CO_2 prices in its value in use impairment assessments • It disclosed that NZE prices could lead to the life of certain producing, development, and intangible assets declining by 30% and an additional pre-tax impairment of approximately $9bn.	• EY did not comment on whether the estimates used by management were aligned with this drive, but used the IEA's NZE scenario to evaluate the sensitivity analyses related to Equinor's carbon and commodity price forecasts.

Carbon Tracker Initiative

Climate Action 100+ Global Investors Driving Business Transition