TfL PENSIONFUND

OCTOBER 2023

NET ZERO CARBON JOURNEY UPDATE

Investment Beliefs drive the Fund's Sustainability Agenda

- Investment beliefs, as collectively agreed by the Trustee Board, set the context and direction for everything the Fund does in this area.
- Beliefs were refreshed during early 2023 following extensive one-to-one and collective consultation and discussion.
- Ensuring long-term financial sustainability of the Fund remains the most important fiduciary consideration for the Trustee Board and Sustainability is part of it.
- The Beliefs are long-term in nature.

Major Themes

CARBON FOOTPRINT
Outcomes vs. Net Zero Targets

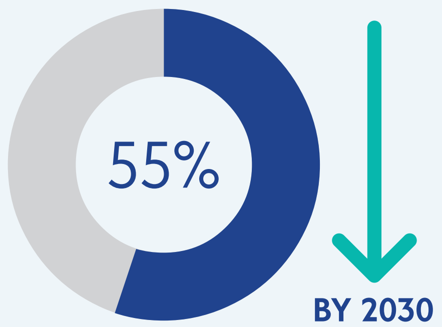
VOTING & ENGAGEMENT
Major step-up in the Fund's Activities

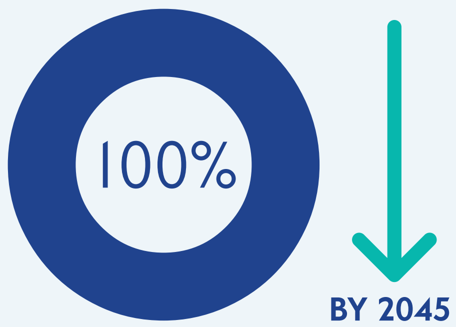
NEW WORKSTREAMS
Hedge Funds and Sovereign Bond Portfolio

DECARBONISATION INTERVENTIONS
in the Pipeline

Ambitious Net Zero Targets agreed by the Fund in October 2021 and on track

- **The Fund is ahead of where it needs to be to deliver the 2030 target.**
- The Trustees of the TfL Pension Fund have committed to an ambitious Net Zero Plan which would see the Fund achieve a 55% reduction in its carbon emissions by 2030 at the latest and a 100% reduction no later than 2045 vs the 2016 baseline, when the Paris Agreement came into effect.
- The targets will be measured using the widely used weighted average carbon intensity ("WACI") metric. This will allow the Fund to effectively measure progress through making comparisons with the baseline.



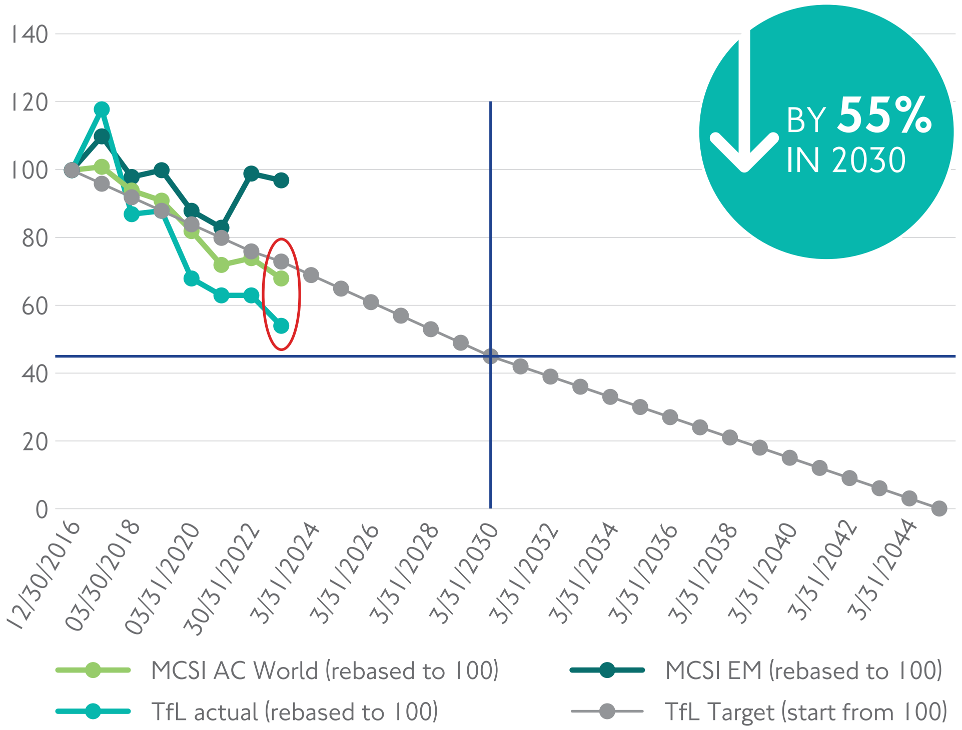


Sustainability linked Investment Beliefs

- Long-term sustainability issues have a material impact on risk and outcomes, both financial and non-financial.
- E, S and G deserve equal consideration when setting long-term ambitions but we acknowledge that regulations or circumstances may require prioritising E, S or G over shorter time periods.
- Engagement is most effective when undertaken by both portfolio managers and third-party specialists. Portfolio managers will have greater oversight of the assets and third-parties are better positioned to facilitate engagement at a fund-, industry- or company-level.
- Sustainability is one of a number of factors taken into account when considering the suitability and attractiveness of an investment; as a result not all holdings are expected to have perfect ESG characteristics.

The Fund is ahead of where it needs to be on its Net Zero Journey in its Active Public Portfolio

WACI (IN TONS CO_2E PER $M SALES) – Public active equities and corporate bond



Source: Aladdin

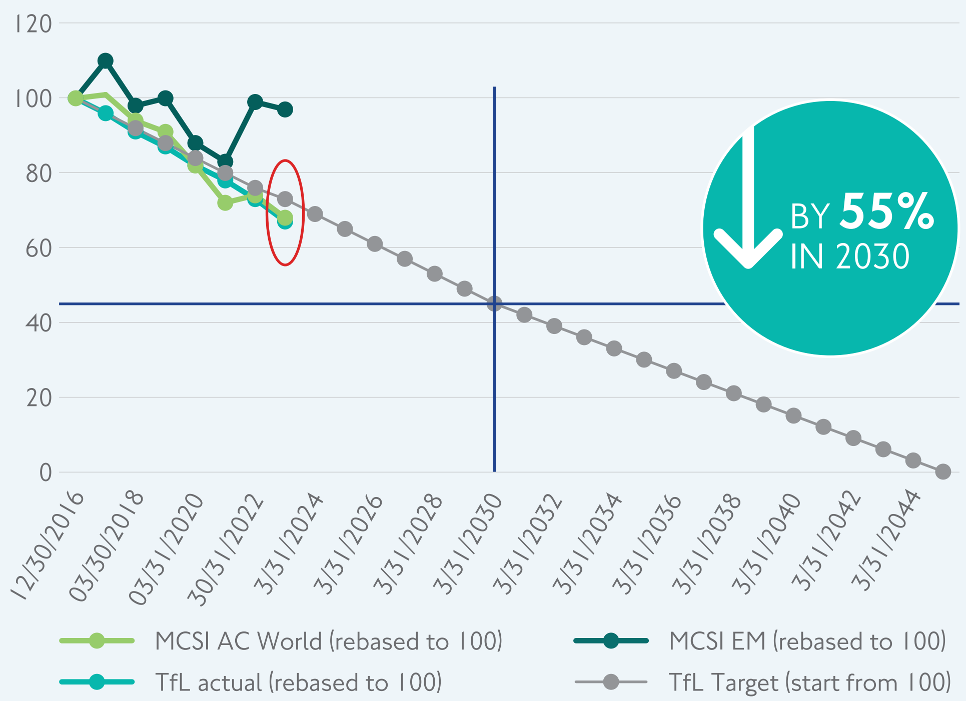
WACI REDUCTION WAS
18%
AHEAD OF TARGET

WACI REDUCTION WAS
14%
AHEAD OF BENCHMARK

- 18% ahead of target.
- 14% ahead of the benchmark.
- Assuming linear path, the Fund is 5 years ahead of its 2030 target.

And also including private markets portfolios and hedge funds

WACI (IN TONS CO_2E PER $M SALES) – Private and public (all)



Source: Aladdin/proxy from underlying indices/manager input/estimate

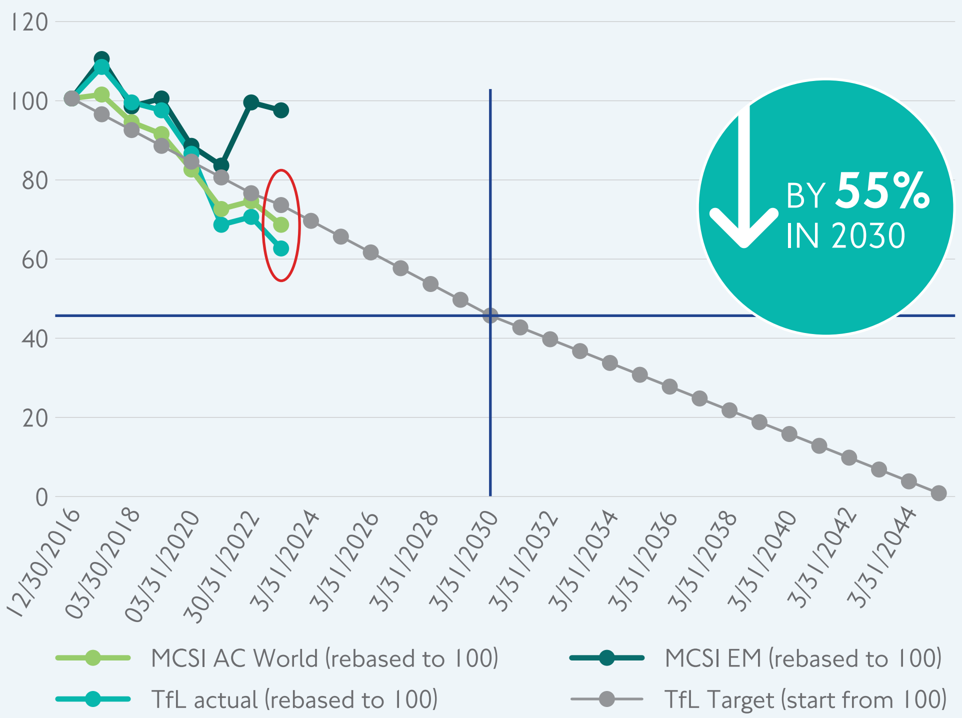
WACI REDUCTION WAS
7%
AHEAD OF TARGET

WACI REDUCTION WAS
3%
AHEAD OF BENCHMARK

- 7% ahead of target.
- 3% ahead of benchmark MSCI AC World.
- Assuming linear path, the Fund is 2 years ahead of its 2030 target.

And also including its passive portfolio

WACI (IN TONS CO_2E PER $M SALES) – Public equities (active and passive) and corporate bond



Source: Aladdin/proxy from underlying indices/manager input

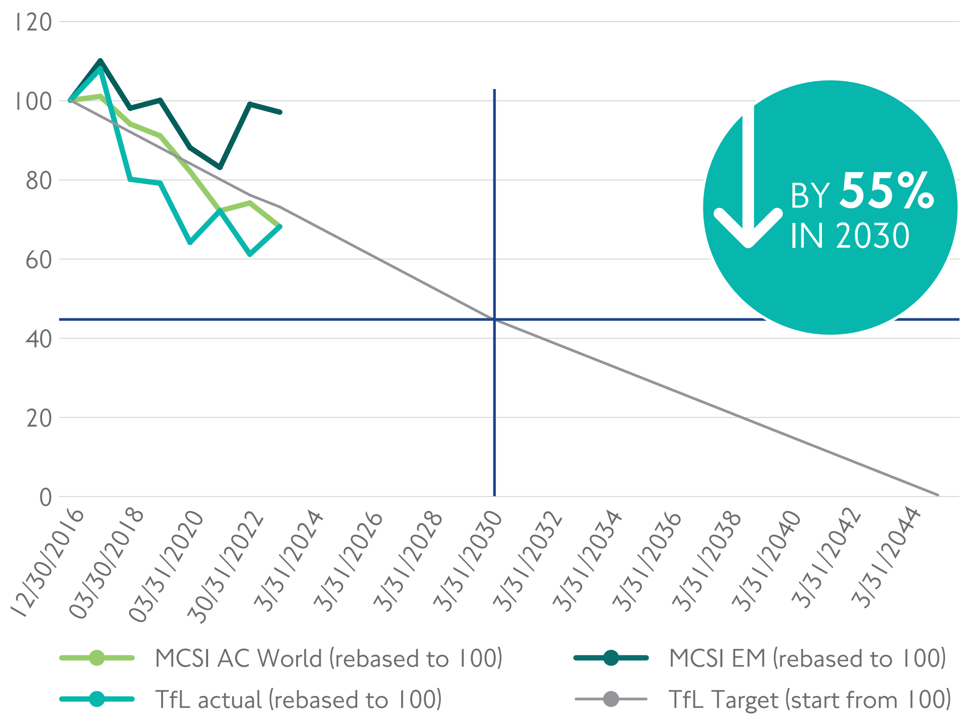
WACI REDUCTION WAS
11%
AHEAD OF TARGET

WACI REDUCTION WAS
6%
AHEAD OF BENCHMARK

- 11% ahead of target.
- 6% ahead of Benchmark.
- Assuming linear path, the Fund is 3 years ahead of its 2030 target.

Absolute Emission is also ahead of its target despite the Fund being 40% larger

CARBON EMISSION (IN TONS) – Public active equities & corporate bond

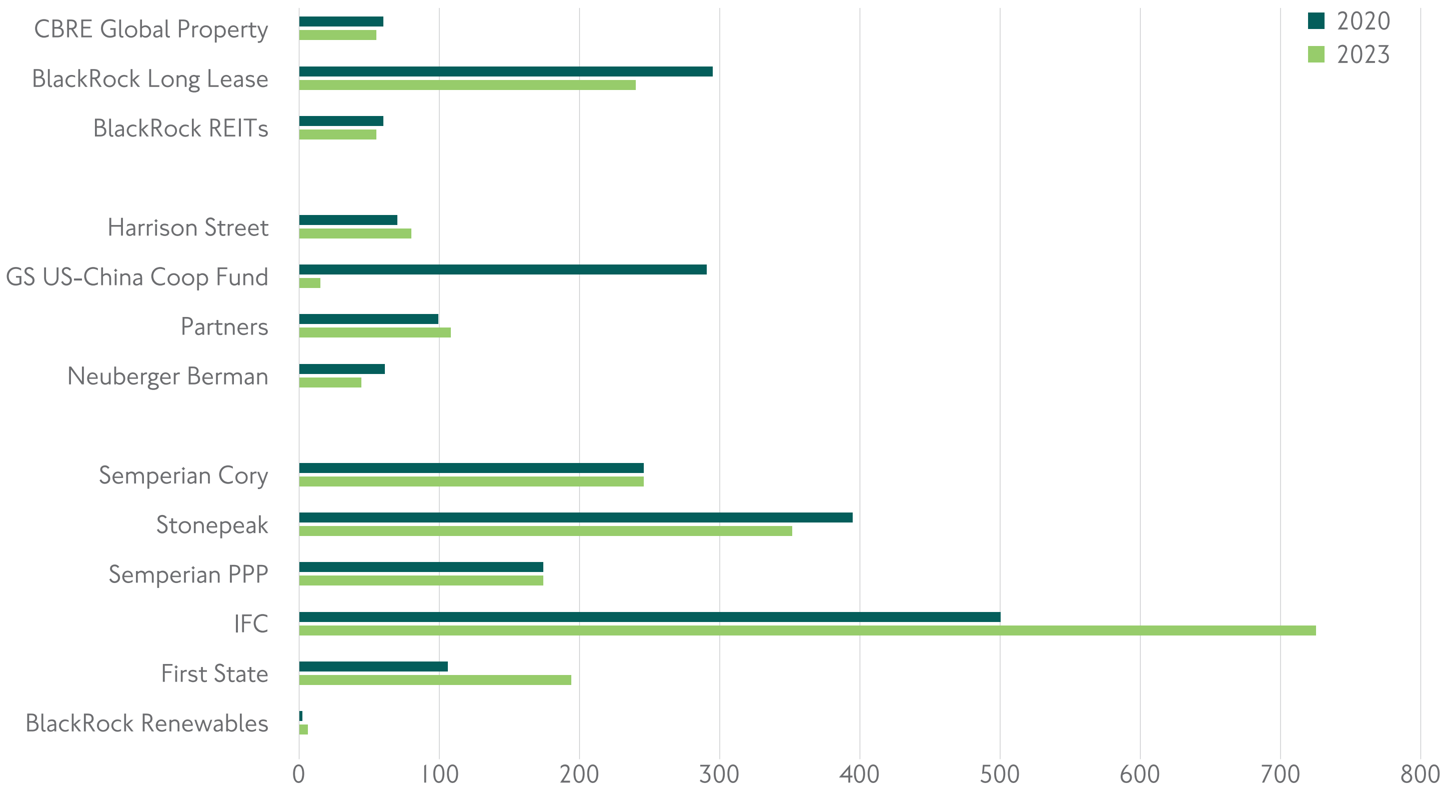


ABSOLUTE CARBON EMISSION IS DOWN BY AROUND
30%
SINCE 2016

- Unlike WACI that normalizes the emission for the Fund's size, absolute emission measure total emission and would increase in line with Assets Under Management.
- Absolute emission is down c.30%.

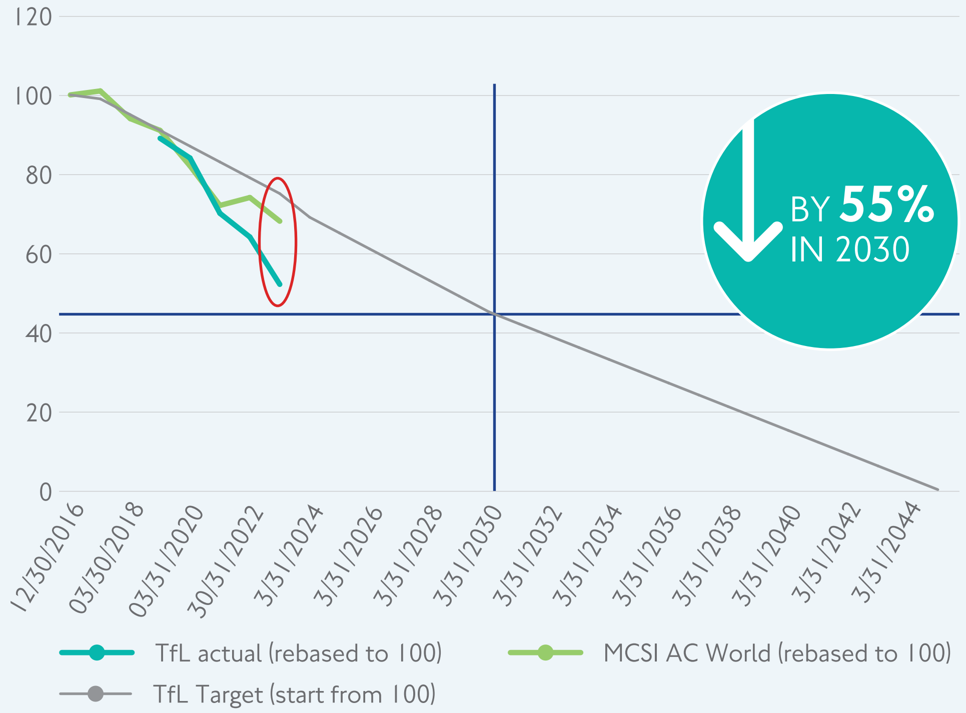
Examples of Carbon Reductions in Private Market mandates

WACI (SCOPE 1 & 2) – Private Markets in 2020 vs 2023



Sovereign Bond Portfolio: Less relevant as WACI cannot be measured but still worthwhile to track using a different metric

GHG INTENSITY (TONS PER COUNTRY GDP IN $M) – GSAM Sovereign Bond

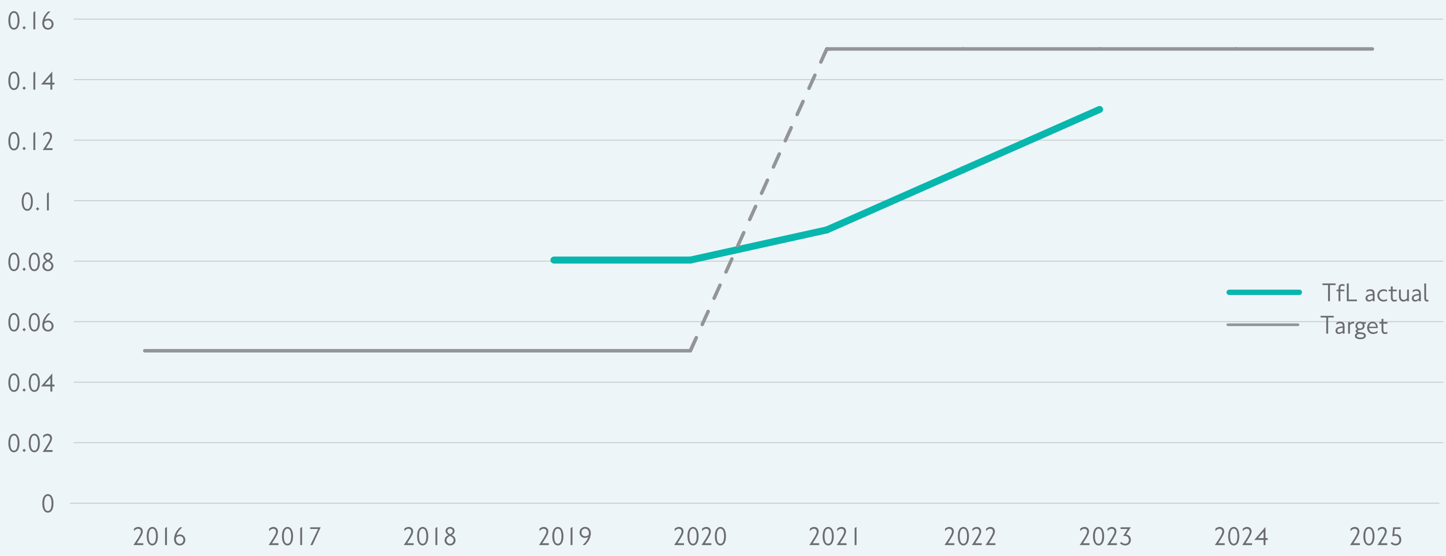


Source: Aladdin. ^Note: No data available before 2018. Beginning value based on estimate.

CARBON INTENSITY IS DOWN NEARLY **50%**

- Unlike other assets where carbon emissions is measured on issuer or company level, the sovereign bond is measured on the country level.
- We source the carbon data from Aladdin, where the GHG emissions intensity per GDP of the countries can be provided.
- Carbon Intensity is down nearly 50%.

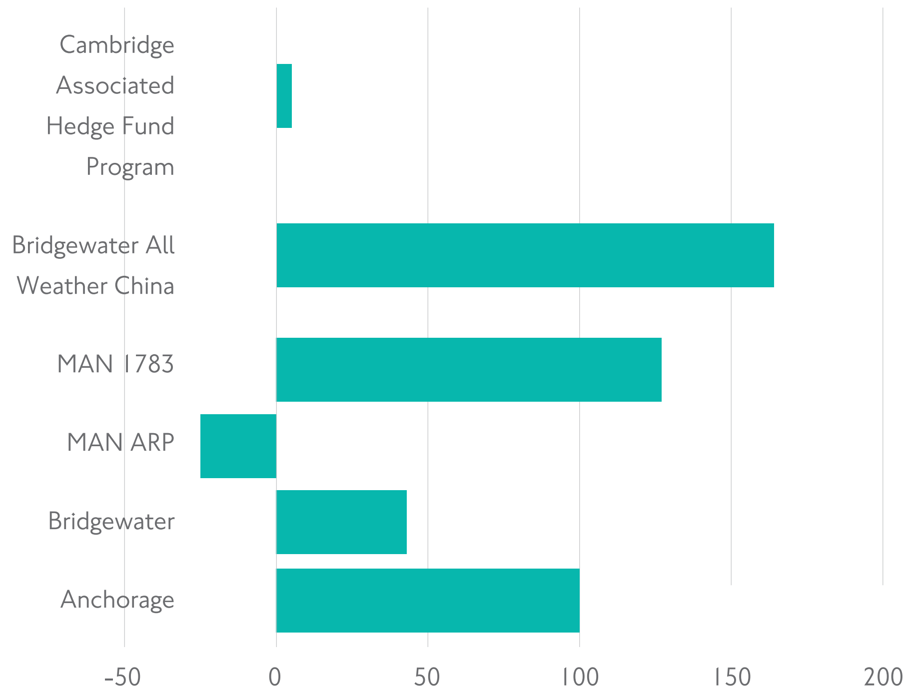
The Fund is nearing its 2025 target to be 15% in "ESG tilted" assets



- The Fund is currently in line with the 2025 target, with c.12.9% of investments having an "ESG" tilt.
- The ESG tilted investment is taken from UN PRI recommended Environmental and Social themed investments in the areas of clean and renewable energy, SME finance, Education, Global health, Green Building and Water.
- The ESG tilt target changed from 5% to 15% in 2020.

In 2023, we started measuring our carbon footprint for Hedge Funds

WACI (SCOPE 1 & 2) – HEDGE FUNDS 2023

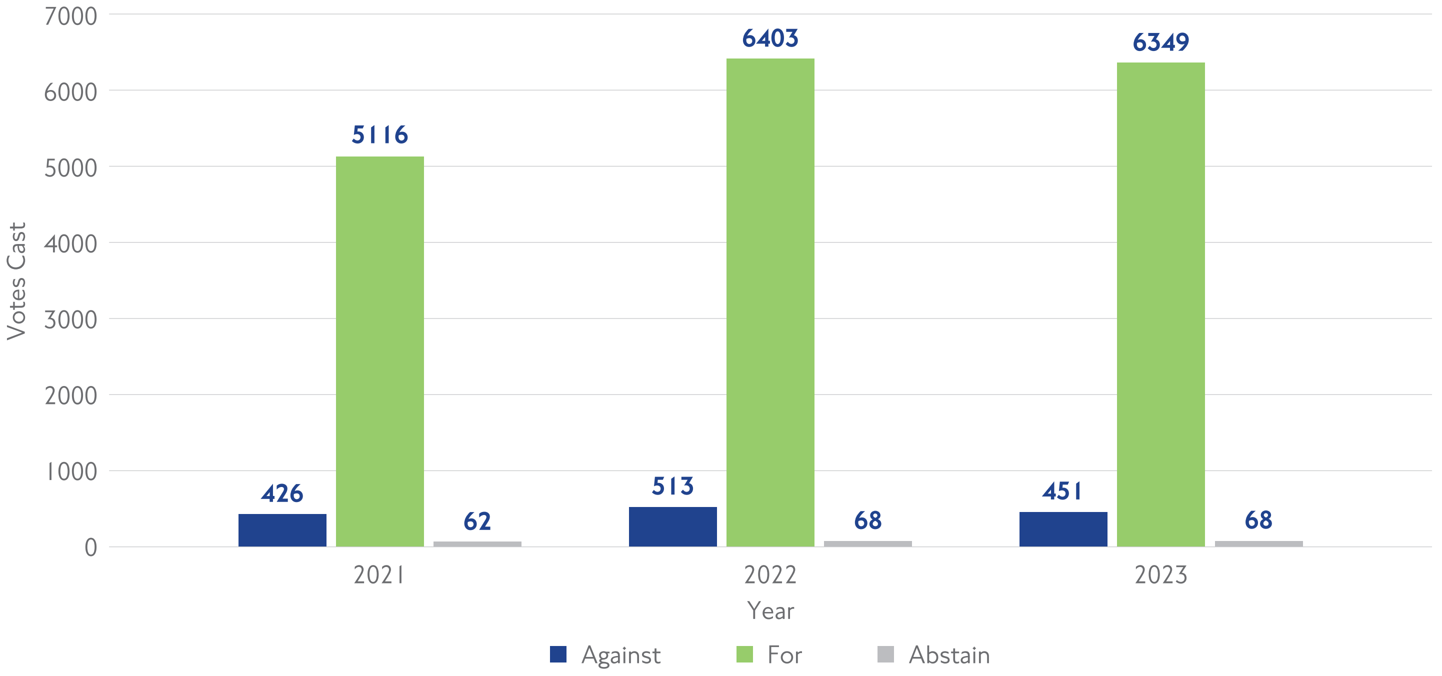


Source: Data provided by manager/sector provided by manager as proxy

- This is the first year to collect carbon data from our hedge fund managers.
- WACI for Hedge fund is 31, below the WACI of benchmark MSCI AC World which is 150.
- While the investment strategies for hedge fund is different with traditional asset classes, data collection as well as measurement is restricted.
- For example, strategies such as currency trade, commodities, derivatives etc. makes it harder to report carbon data.
- Currently, mainly the long/short strategies carbon data are provided by the managers (if any).

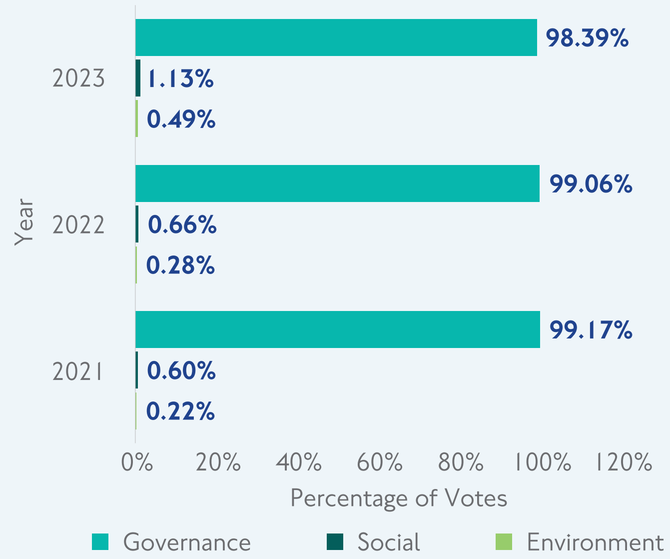
Voting (Active Equities)

MANAGEMENT PROPOSALS VOTING STATISTICS



Majority of votes against management are on board related and compensation proposals as they are sometimes used to express shareholder dissatisfaction toward overall ESG governance. This is still a relatively new concept, but growing in popularity.

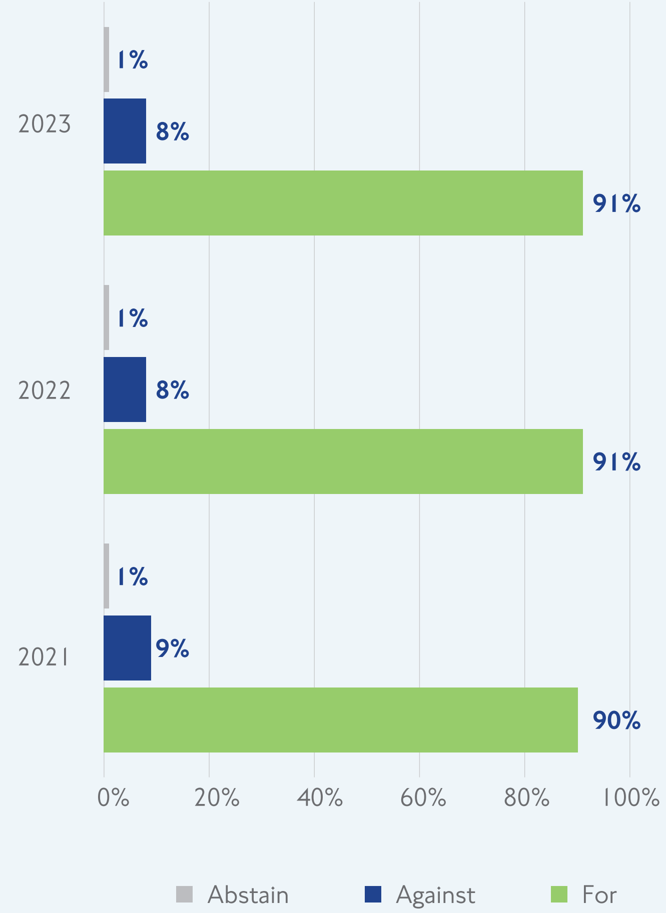
VOTES BASED ON E,S, AND G PROPOSALS



Governance-related proposals remain dominant due to their foundational role, while shareholders are increasingly using them to drive Environmental and Social changes. The Fund has voted in favour of ESG proposals or against where these are deemed in the best interest of shareholders.

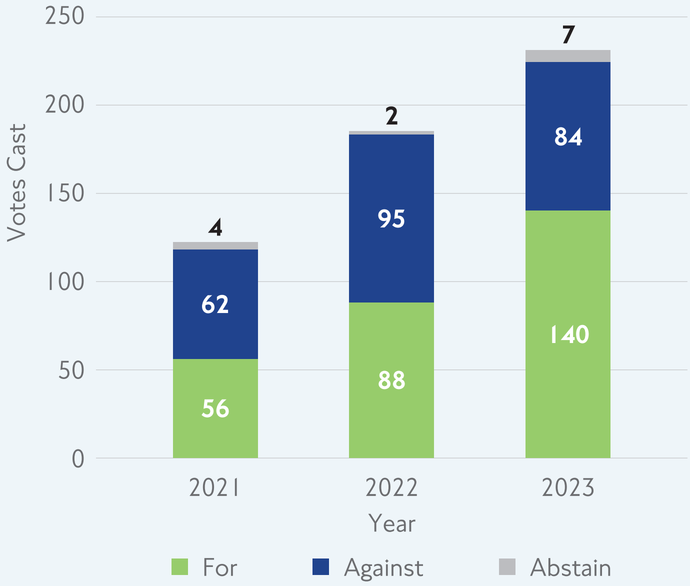
Each data point covers a 12-month period ending in March of each year.

VOTES BASED ON VOTING ACTIONS

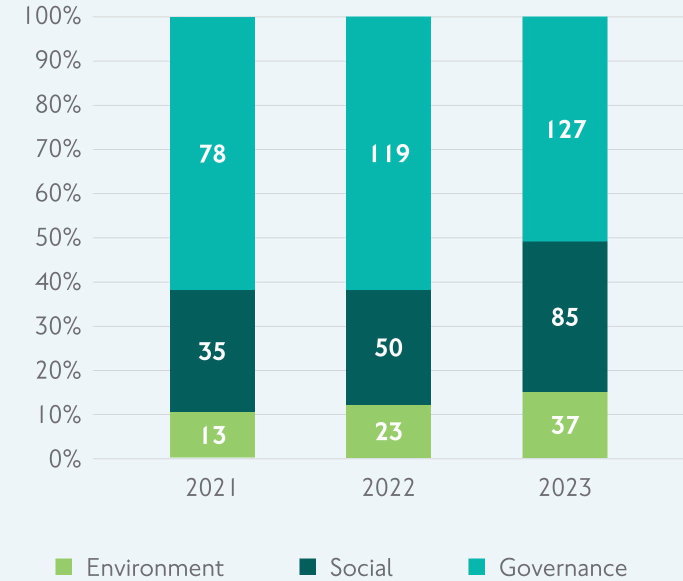


Voting (Active Equities) – continued

SHAREHOLDERS PROPOSALS VOTING STATISTICS



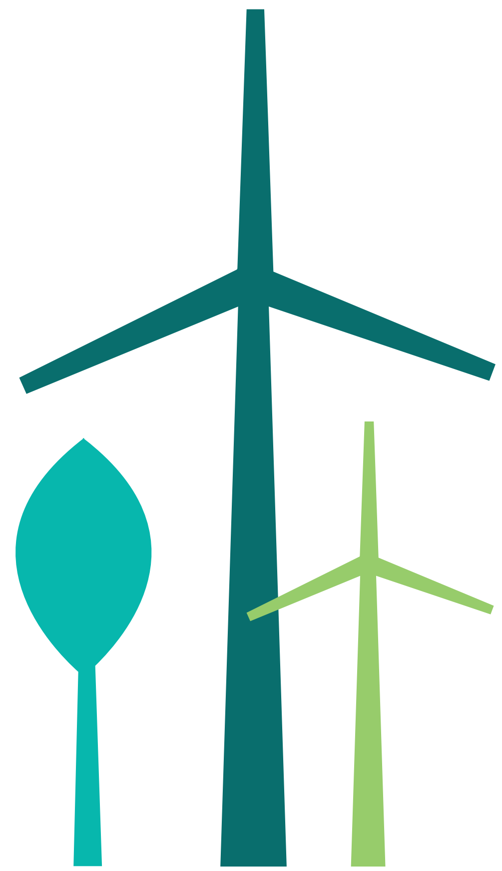
CATEGORIES OF SHAREHOLDERS PROPOSALS



Over the last 3 years, there has been a steady increase in the number of Environmental and Social-focused proposals being put forward for votes, the majority of which were proposed by shareholders.

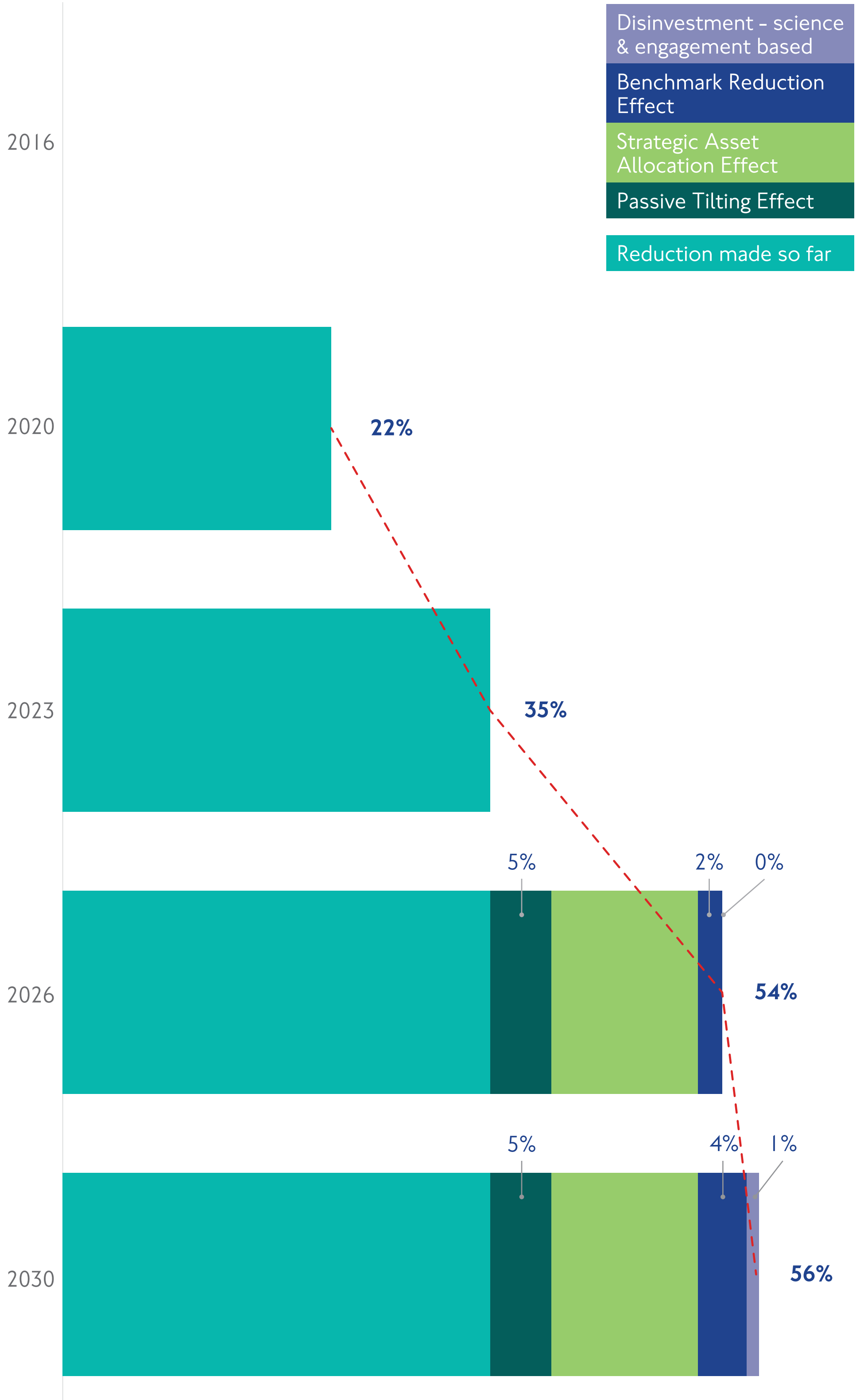
Partnership with Engagement Specialist – Sustainalytics

- The Fund collaborated with fellow investors to engage 22 companies across three categories driving climate change within the forest value chain:
  - Producers and traders in forest risk commodities (for example timber, palm oil, rubber & soy)
  - Banks financing these operations, with a focus on the lending arm
  - End-users of forest commodities
- The companies have been cooperative, sharing their climate actions and experiences. In finance, six of seven engaged financiers have set targets and strategies for portfolio-based emissions reduction.
- Mid-value chain commodities companies generally commit to zero deforestation, assess nature-related risks like High Conservation Value (HCV) and High Carbon Stock (HCS) and track source origins and certifications.
- End value chain companies make progress in reducing scope 1 and 2 emissions. Still, the hurdle lies in tracing products and improving supply chains for data availability, carbon emission reduction, and positive environmental impact.

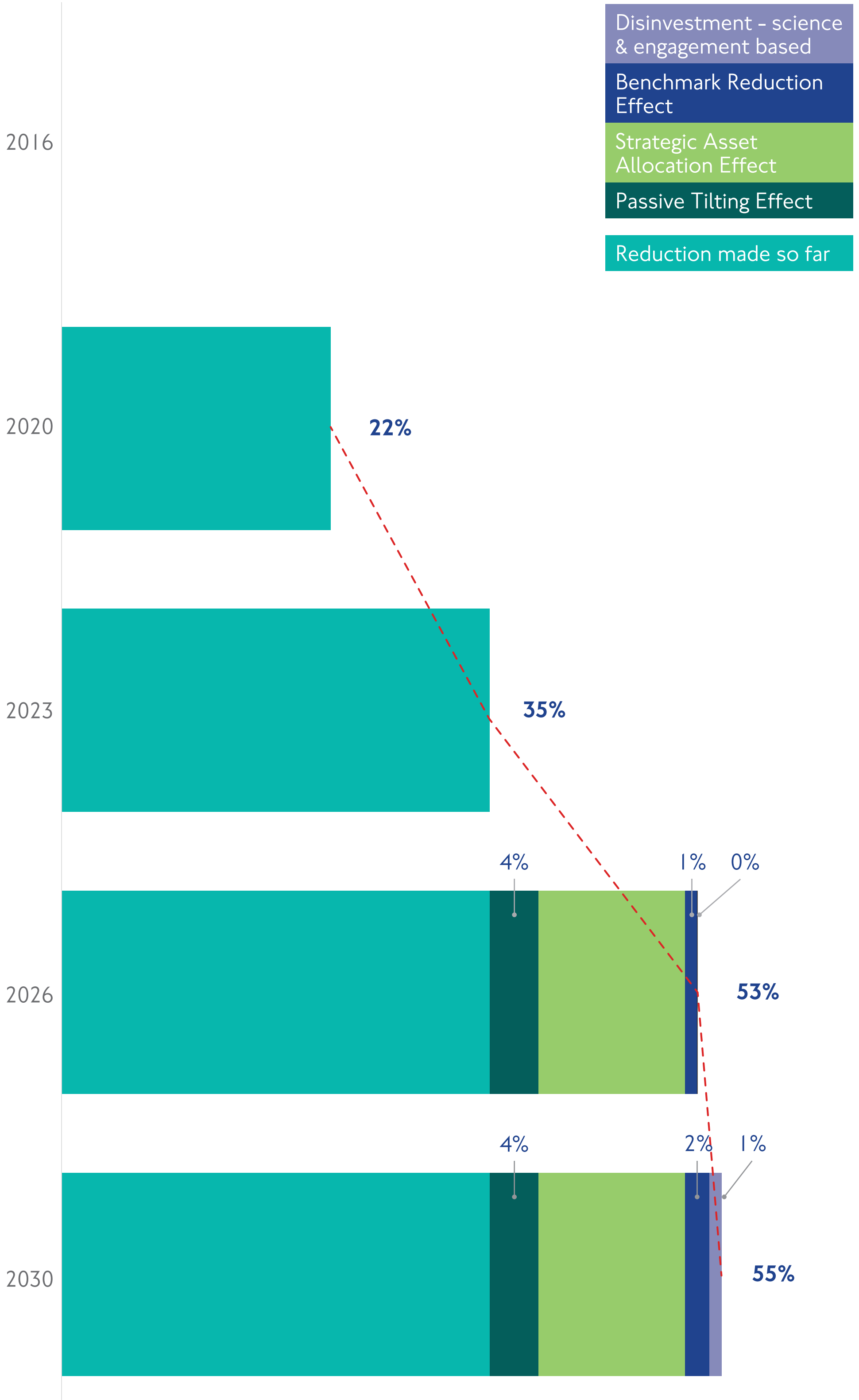


- There is much better visibility and understanding of the 2030 delivery roadmap under the Base, Optimistic and Pessimistic Case (they differ on how quickly decarbonisation progresses vs. our recent experience) but now is too early to plot the 2045 roadmap with any precision as the technology is still evolving.
- The Fund is already ahead of its Carbon targets through a prudent choice of investments and a good understanding of the risks involved.
- Initiatives underway to further de-carbonise the portfolio include the implementation of the updated investment strategy that increases the allocation to low carbon companies and sectors. This is part of increased allocation to alternative investments such as private market assets and hedge funds, tilting the Fund's public holdings that are market benchmarked ("passive assets") to lower carbon options, public benchmarks themselves getting less carbon intensive over time and science-based divestments pursued as a last resort where engagement fails to deliver the change over medium to long-term.

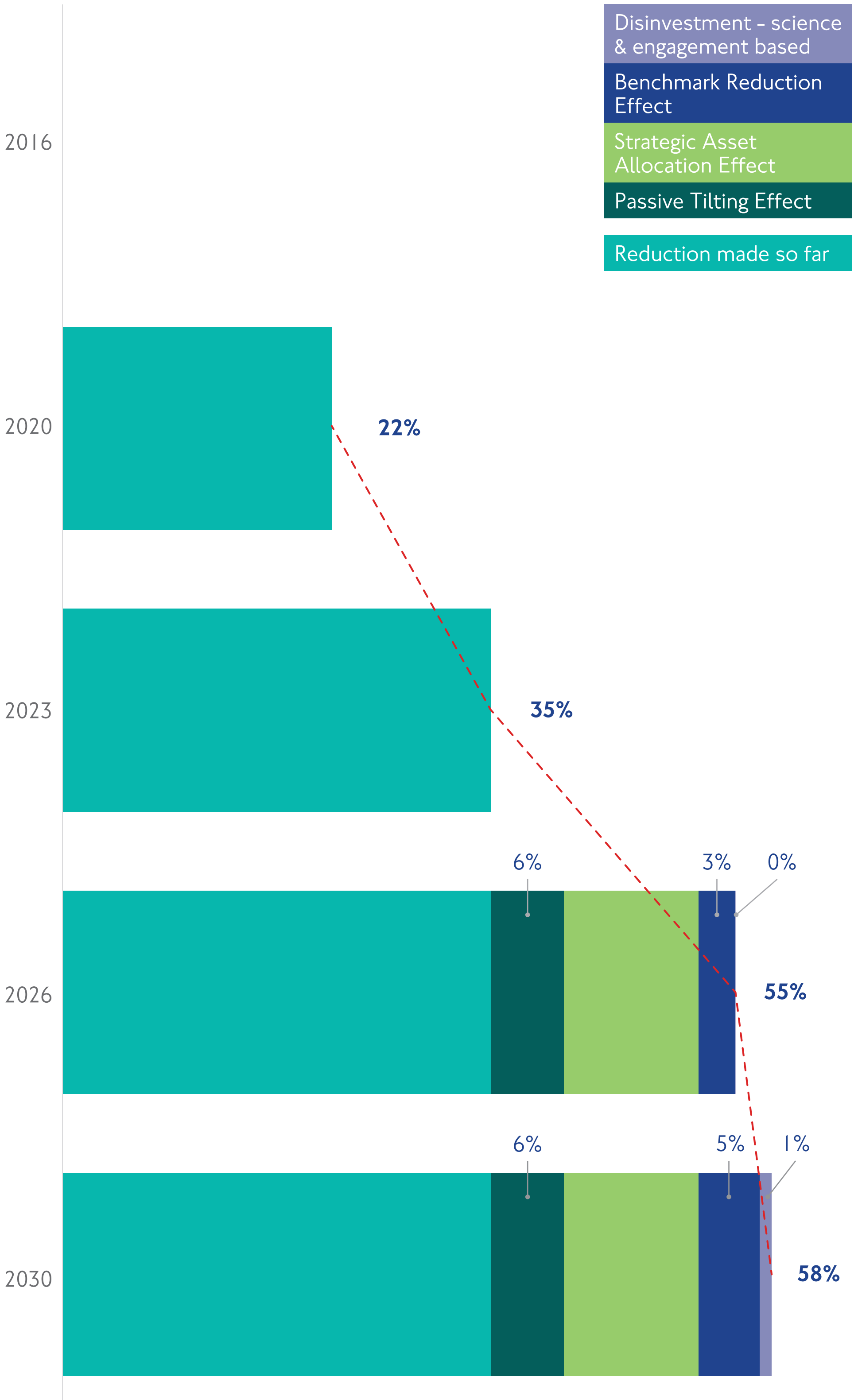
Net Zero Roadmap – Base case



Net Zero Roadmap – Pessimistic case



Net Zero Roadmap – Optimistic case



Glossary

- **Active Public Portfolio**
  - The Fund's investments in listed equities and bonds that are actively managed by our specialist managers with reference to a relevant market benchmark, typically holding a more concentrated portfolio of their highest conviction companies.

- **Average Carbon Intensity GHG Intensity ("WACI")**
  - WACI measures a portfolio's exposure to carbon by revenue, expressed in tons $CO_2e/\$M$ revenue

- **GHG Intensity**
  - GHG is referring to greenhouse gas emissions, they are gases in the earth's atmosphere that trap heat
  - GHG intensity is measured in tons/USD million GDP Nominal of the country

Passive Portfolio
  - The Fund's investments in listed equities and bonds that are not actively managed by specialist and merely replicate market benchmarks i.e. hold nearly all the companies in the benchmark

- **Private Markets Portfolios and Hedge Funds**
  - It represents the Fund's investments in "alternatives" asset class, with private markets portfolio invested in securities that are not publicly listed and hedge funds invested in a range of public assets with strong risk control framework.

Scope 1 emissions
  - Scope 1 emissions are direct greenhouse (GHG) emissions that occur from sources that are controlled or owned by an organisation (e.g., emissions associated with fuel combustion in boilers, furnaces, vehicles).

- **Scope 2 emissions**
  - Scope 2 emissions are indirect GHG emissions associated with the purchase of electricity, steam, heat, or cooling. Although scope 2 emissions physically occur at the facility where they are generated, they are accounted for in an organisation's GHG inventory because they are a result of the organisation's energy use.

The analysis uses data from external providers and estimates/proxies where actual data is currently unavailable. As the underlying data quality and coverage improves in line with better reporting and stricter compliance guidelines, the analysis should improve as well over time.