

Climate Emergency: Committing to a Net Zero Future



June 2019



www.carboncredentials.com

AGENDA

- **Introductions**
- **What is a net zero target?**
- **Creating a net zero strategy: the four big decisions:**
 1. What is an appropriate emissions boundary for the net zero target?
 2. What is a credible removals strategy?
 3. How will net-zero be achieved and funded?
 4. What are the key milestone years for targets?
- **Next steps**



Our purpose is to enable a global, zero-carbon economy and we have an approved science-based target



ScienceBasedTargets @sciencetargets · Jun 4









Congratulations @CCESLtd, your science-based target has been approved!

Leading the transition to a sustainable economy. bit.ly/SBTaction

#ScienceBasedTargets

CONGRATULATIONS CARBON CREDENTIALS
YOUR SCIENCE-BASED TARGET
HAS BEEN APPROVED



	Commitments by 2030		Actions	
	ZERO	Maintain zero Scope 1 and 2 emissions, no fuels and procuring renewable energy tariff	<ol style="list-style-type: none"> Offices powered by renewables Electric company vehicles 	
	-65%	Reduce emissions from purchased goods & services by -65% per £ Million added value	<ol style="list-style-type: none"> Telecoms procured from zero carbon sources ADAPt & online data storage powered by renewables 	
	-40%	Reduce emissions from business travel by -40% per p-km	<ol style="list-style-type: none"> Opt for greener modes of business travel e.g. rail 	
	30%	Engage with top 30% of suppliers to set own science-based targets	<ol style="list-style-type: none"> Identify and engage targeted suppliers 	

A low-angle, black and white photograph of a modern building's facade, showing a series of white, angular architectural elements and dark glass windows that recede into the distance. The sky is a light, overcast grey.

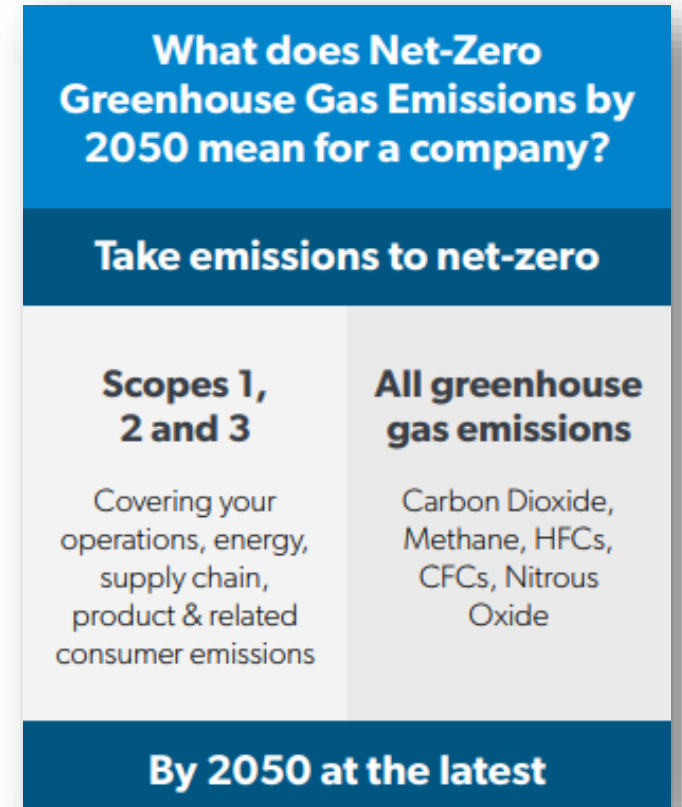
What is a Net Zero Target?

Best Practice approaches to Net Zero should seek to set as a wide as an emissions boundary as possible

Net Zero is defined as:

Cutting greenhouse gas emissions to as little as possible and then balancing the remainder by enhancing carbon sinks which remove carbon dioxide from the atmosphere¹

- Removal of CO₂ can be achieved through direct sequestration or offsetting
- **We Mean Business** advise that organisations in leading economies must achieve Net Zero emissions by 2050 at the latest to be Paris compliant.
- **The B Team** states that companies in the group must have an approved SBT and a clear plan to implement their target to reach Net Zero Scope 1, 2 & 3 emissions by 2050.



¹ Source WWF UK: [*Keeping It Cool: How the UK Can End Its Contribution to Climate Change*](#)

There is scientific consensus that we must keep global warming to $<2^{\circ}\text{C}$ to avoid catastrophic climate change, and aim for 1.5°C

1°C

The **global average temperature** in 2017 was about 1°C above pre-industrial times, and 0.4°C above the 1981-2010 average

4.3°C

Current projections show **temperatures will increase** by $3.7\text{--}4.8^{\circ}\text{C}$ by the year 2100 (compared to pre-industrial levels)

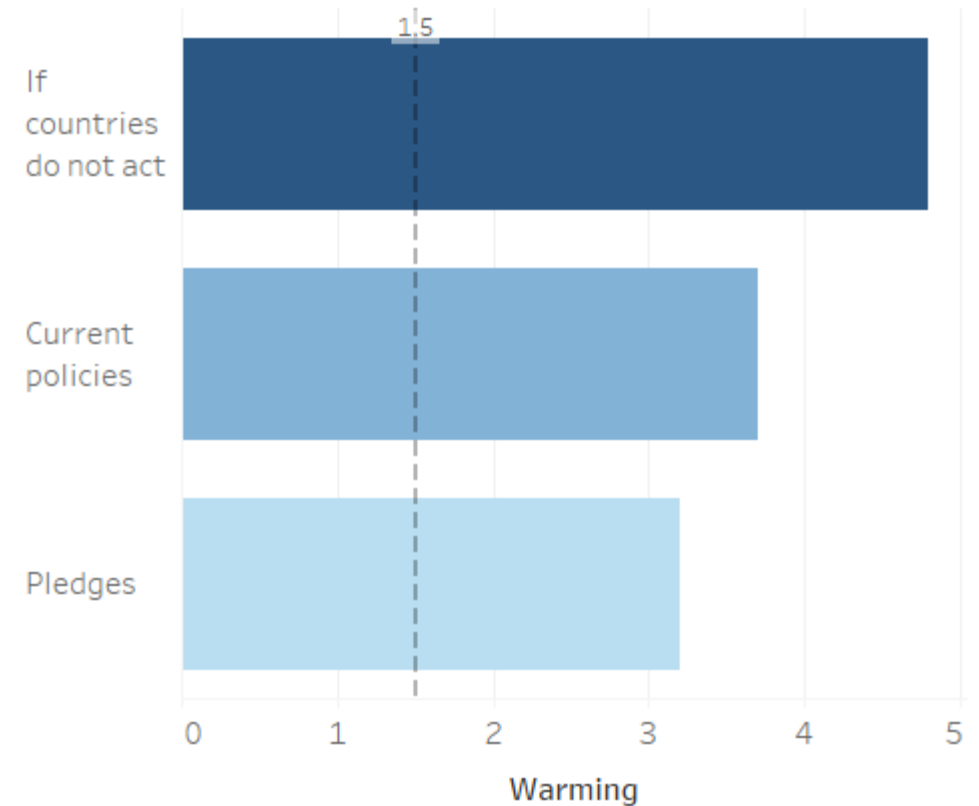


Global scientific consensus =
max 2°C



Paris Agreement: commitment to keep warming below 2°C and pursue efforts to 1.5°C .

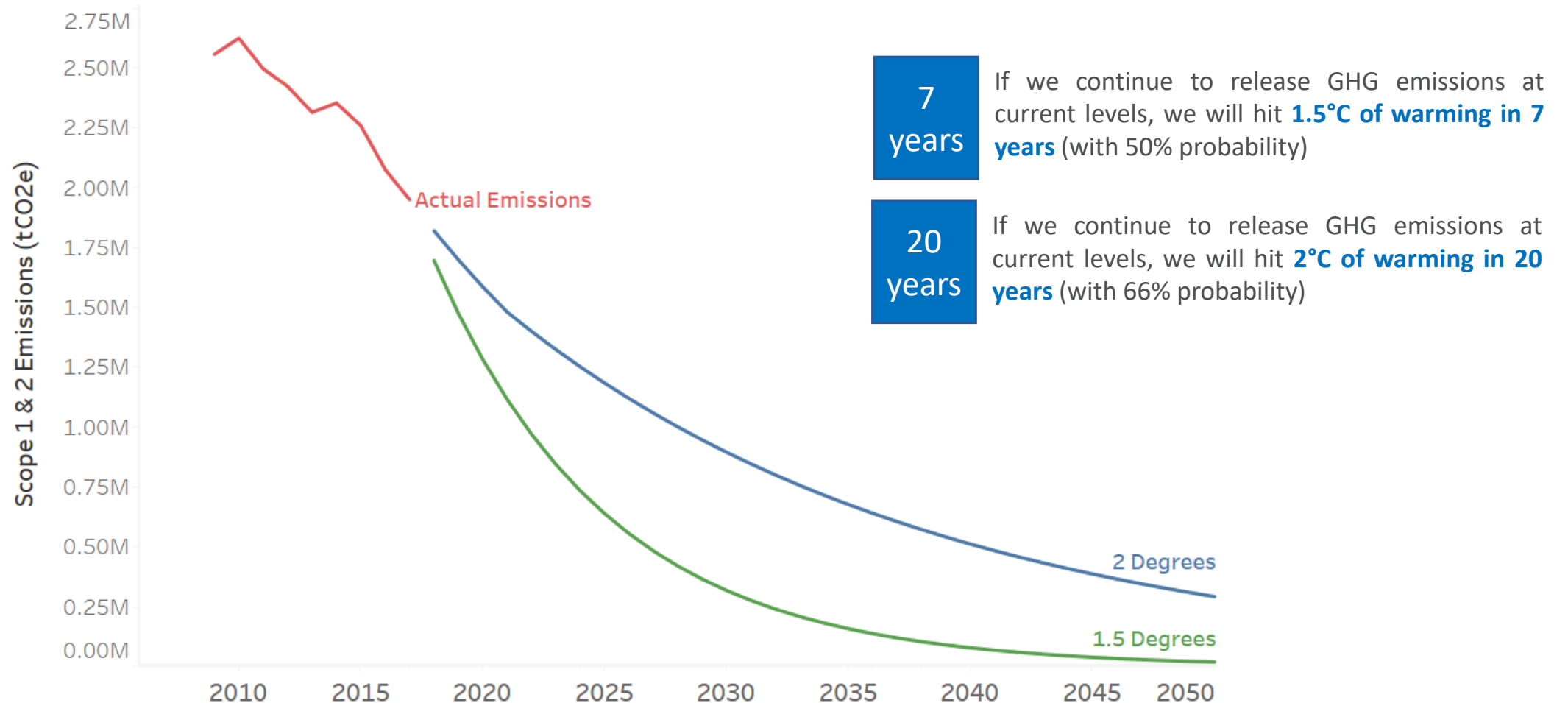
Warming projected by 2100



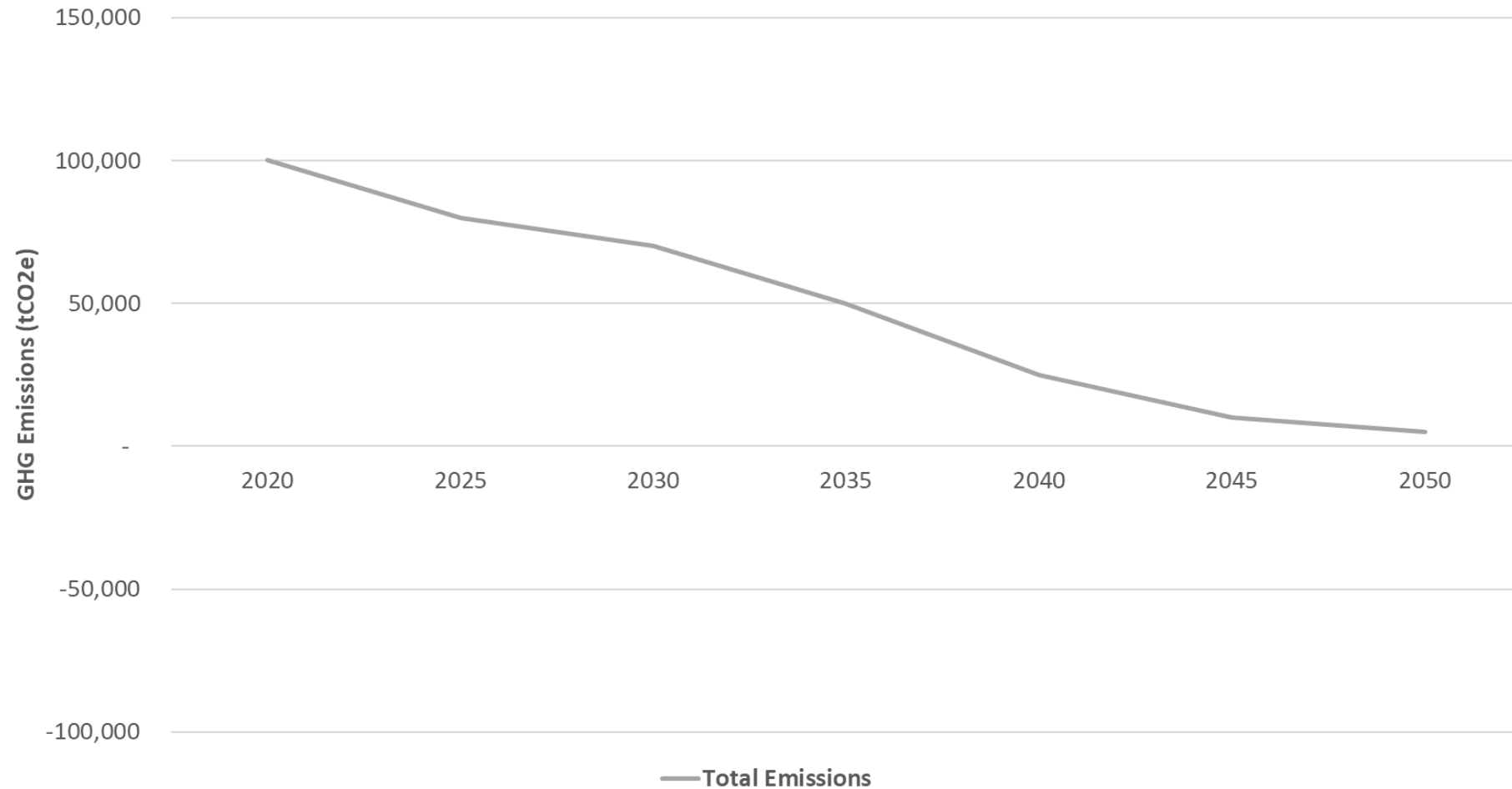
Source: Climate Action Tracker.

Leading organisations are setting carbon reduction targets that are consistent with limiting warming to 1.5°C or 2°C

SCIENCE-BASED REDUCTION TRAJECTORIES FOR THE HE SECTOR

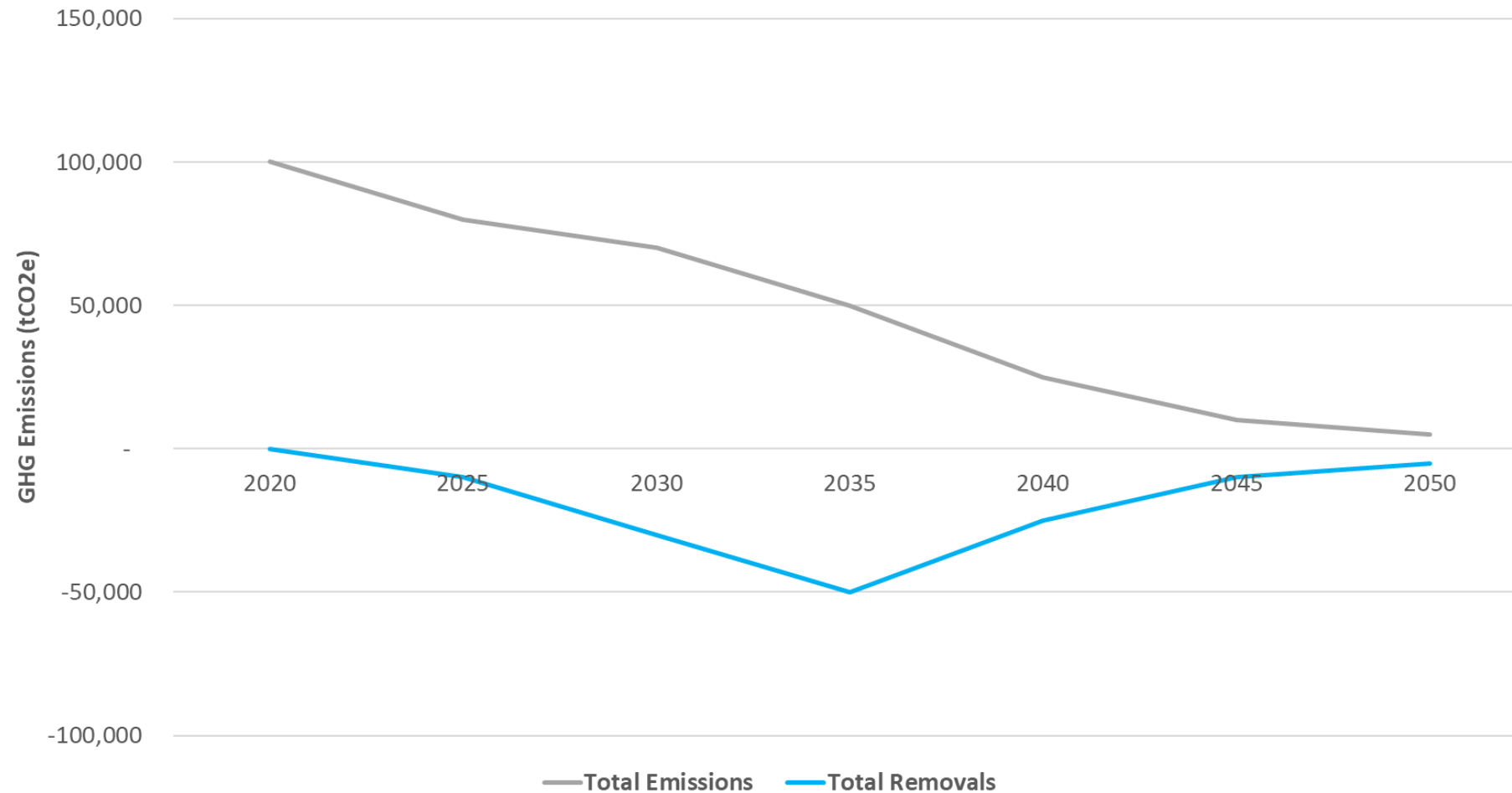


Defining a net-zero target: the reduction pathway



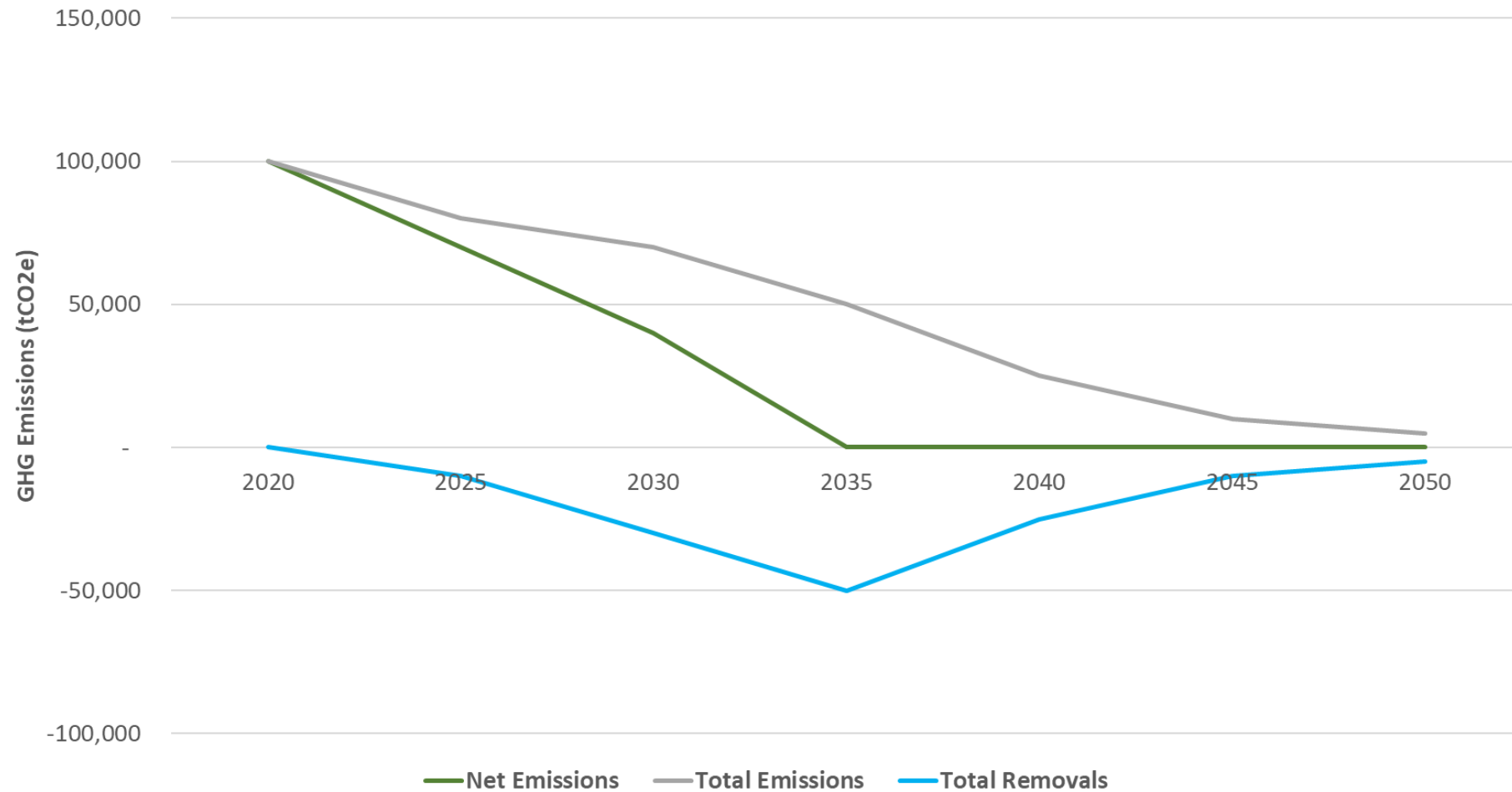
Key consideration: is the reduction pathway in line with a science-based trajectory?

Defining a net-zero target: the removals pathway



Key consideration: what is a credible removals strategy?

Defining a net-zero target: the balance



Key consideration: what is the target date and milestone years?

Addressing the key limitations of net-zero targets

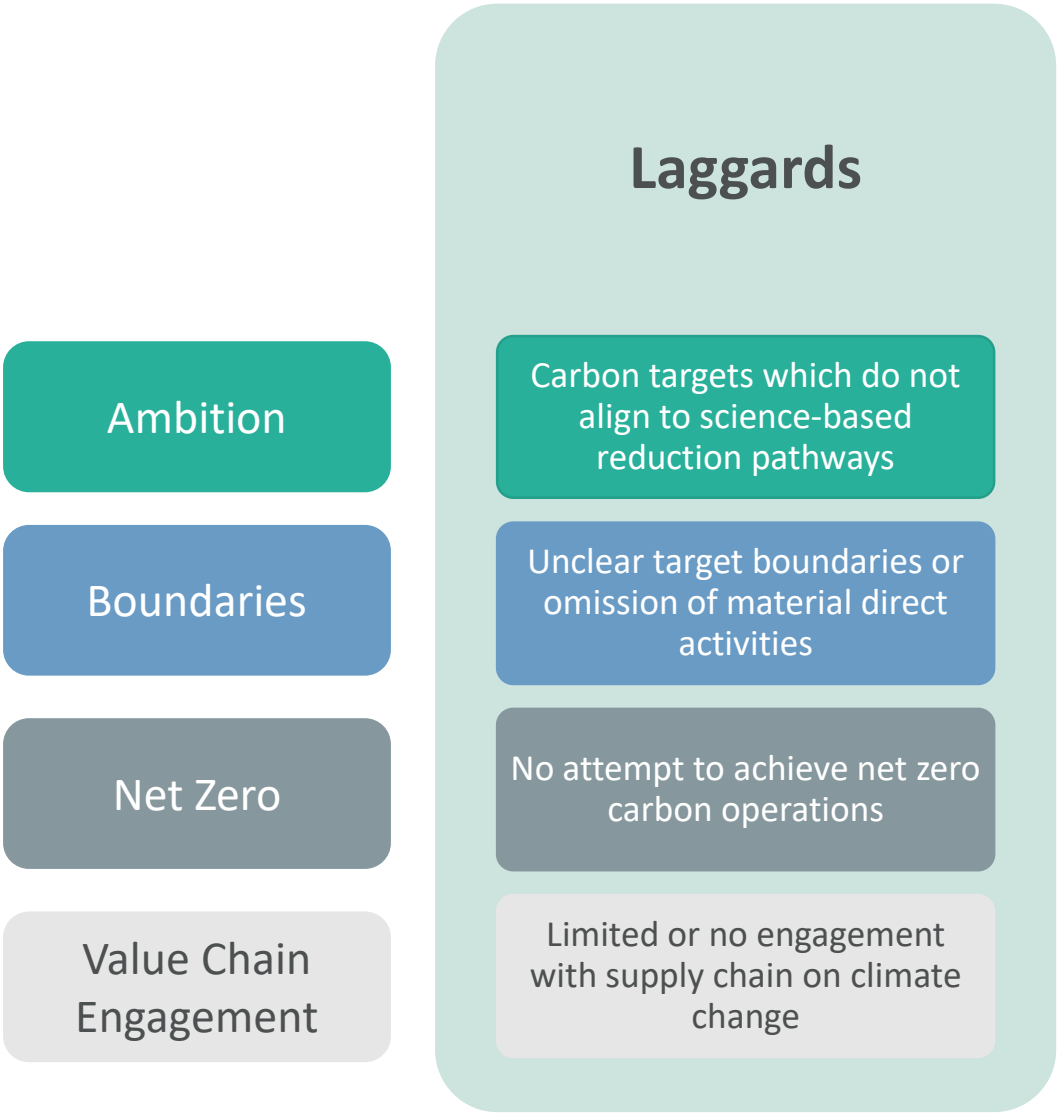
Carbon offsetting: In order to reach “zero” emissions, companies often use offsets or carbon credits. Offsetting can be controversial and seen as a “get out of jail free” card.

Climate change science: Net zero targets must be consistent with the latest climate science, or else it may be too little, too late. A target date of 2100 would not be compatible with climate change science.

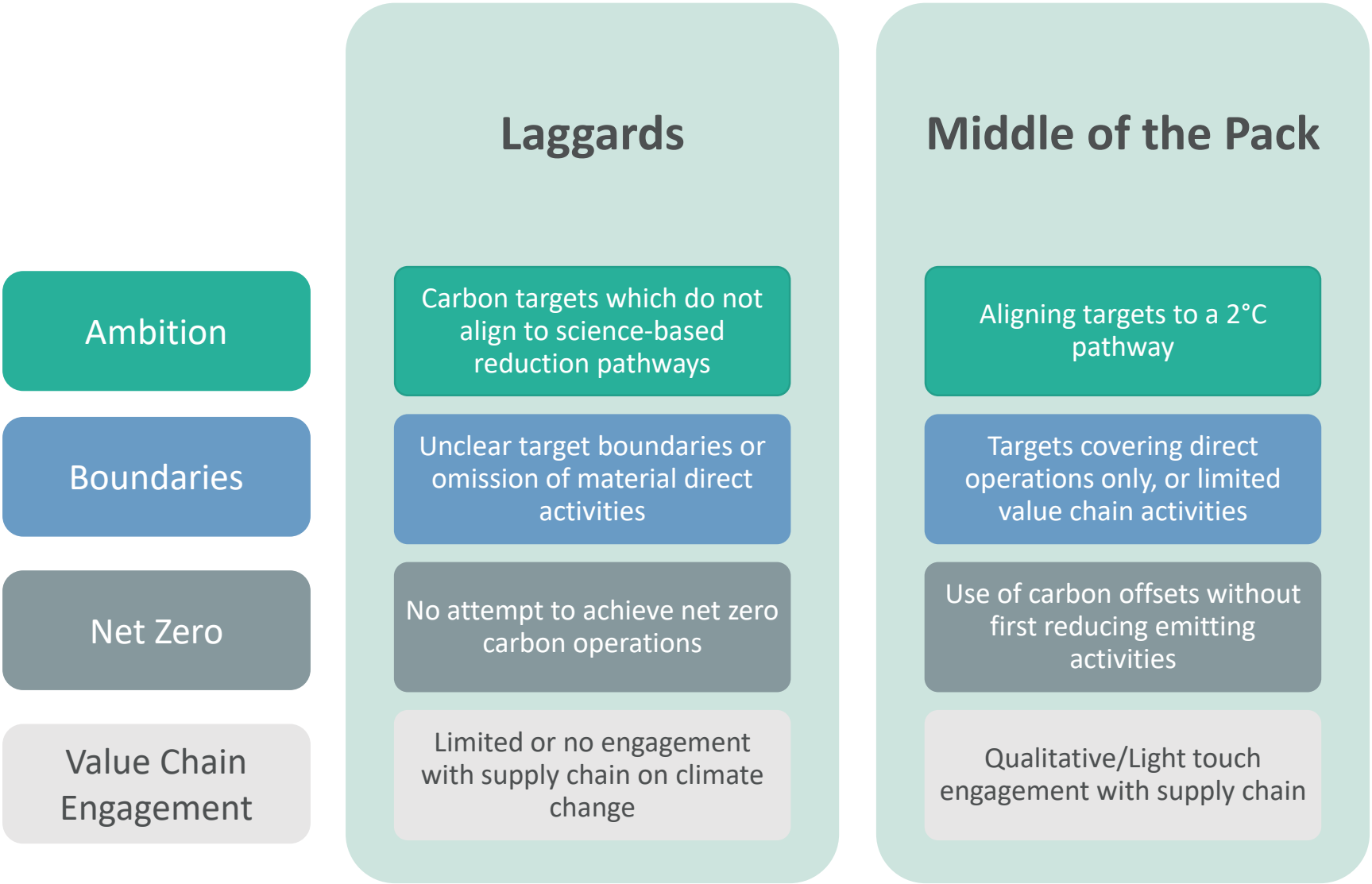
Undefined reduction pathway: It’s important that organisations reduce their emissions in line with carbon budgets. Maintaining current emissions then suddenly dropping to zero in 2050 would not be sufficient.

Lack of standard emissions boundary: there is no universally agreed boundary for net zero targets and many organisations have focused on reducing only their Scope 1 and 2 emissions, requiring little to no efforts to reduce upstream (e.g. supply chain) and downstream (e.g. customer) emissions.

Our insights from working with large corporates:



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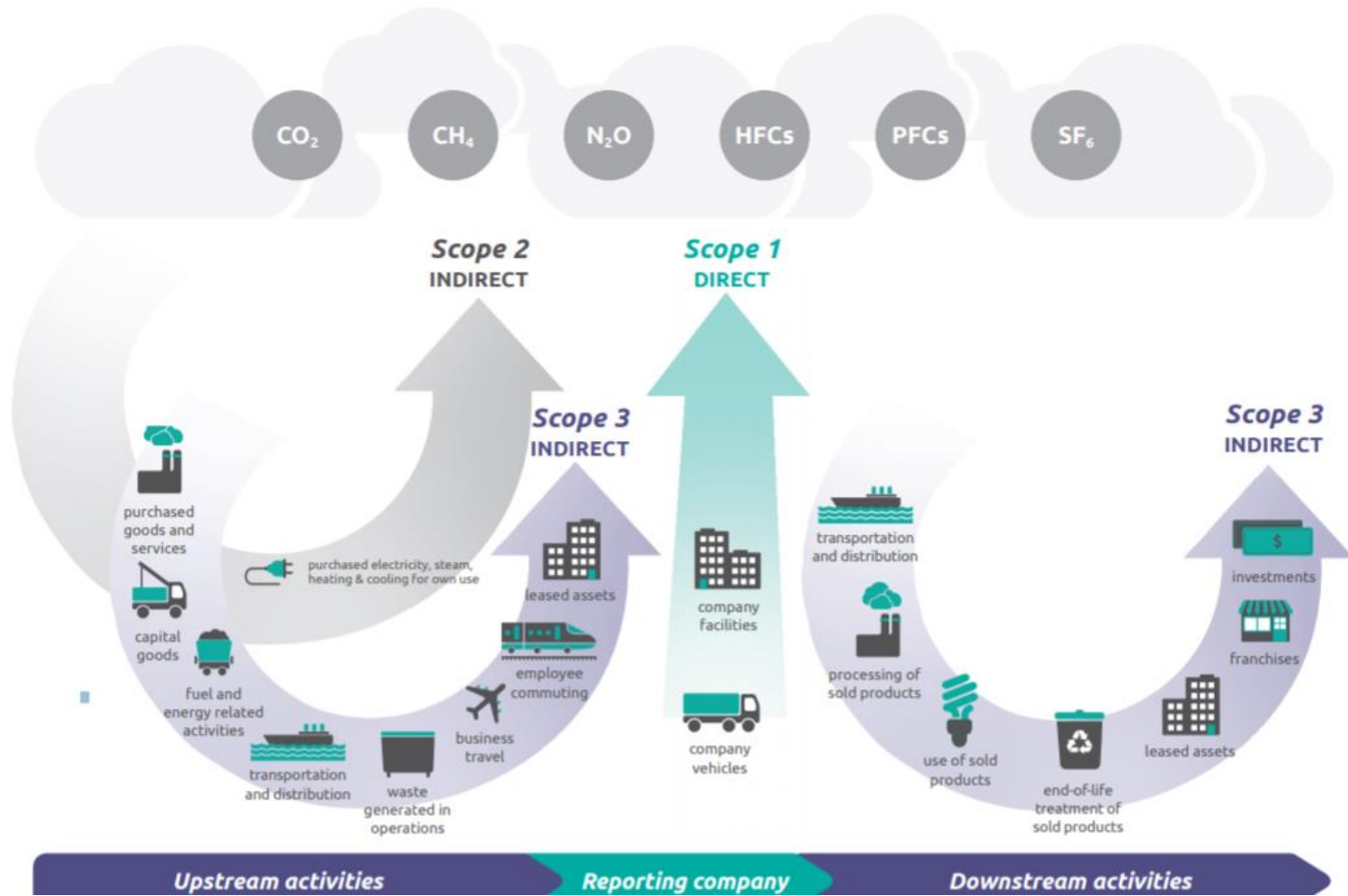
Our insights from working with large corporates:

	Laggards	Middle of the Pack	Leaders
Ambition	Carbon targets which do not align to science-based reduction pathways	Aligning targets to a 2°C pathway	Aligning targets to 1.5°C
Boundaries	Unclear target boundaries or omission of material direct activities	Targets covering direct operations only, or limited value chain activities	Quantitative targets covering both direct operations & all material value chain activities
Net Zero	No attempt to achieve net zero carbon operations	Use of carbon offsets without first reducing emitting activities	Direct carbon sequestration or enhancement of carbon sinks. Carbon offsetting as a last resort
Supply Chain Engagement	Limited or no engagement with supply chain on climate change	Qualitative/Light touch engagement with supply chain	Strategic engagement with material suppliers to measure and reduce emissions

A low-angle, black and white photograph of a modern building's facade, showing a series of white, angular architectural elements and dark glass windows that create a strong sense of verticality and geometric pattern. The building is set against a light, overcast sky with some wispy clouds visible in the upper right corner.

The Four Big Decisions

1. What is an appropriate emissions boundary for the net zero target?



1. Carbon Credentials' view on the boundary

- Net Zero targets should be ambitious and aligned to established SBTi and carbon neutral standards as a minimum
- A Scope 3 gap analysis to quantify emissions from 15 categories will help to understand materiality
- The scope of the boundary should be expanded over time to become more ambitious
- Ideally, organisations should look to include 100% of Scope 1, 2 & 3 when confidence in emissions data is sufficient

The SBTi boundary for science-based emissions targets requires 66% of Scope 3 emissions in the boundary

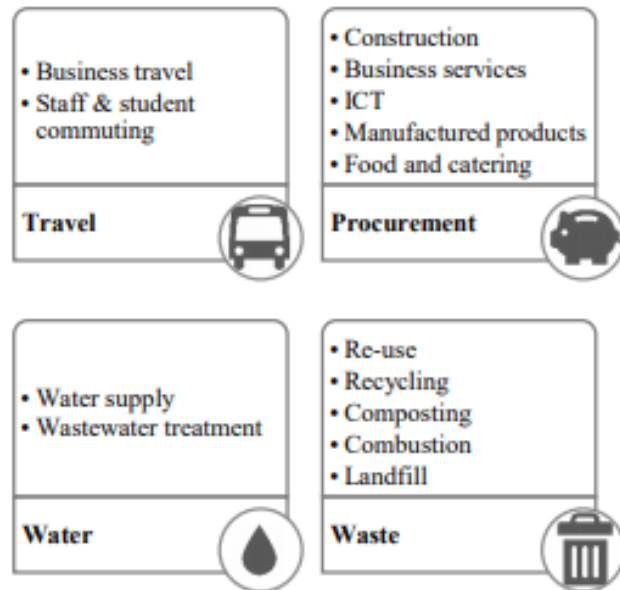
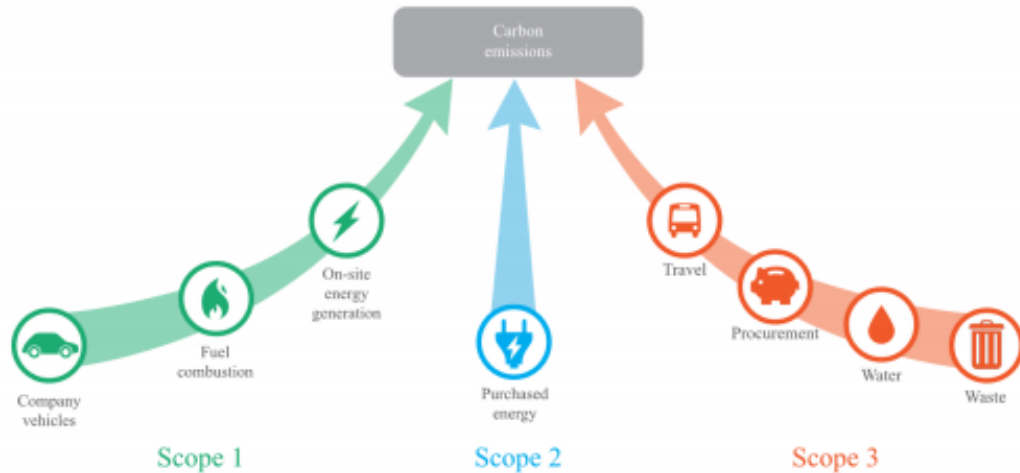
Scopes 1 and 2	
Target type	<ul style="list-style-type: none">• Absolute or intensity, recommends both
Boundary	<ul style="list-style-type: none">• Company-wide Scope 1 and 2
Timeframes	<ul style="list-style-type: none">• Must cover 5 -15 years from announcement• Longer term targets recommended
Reductions	<ul style="list-style-type: none">• In line with most appropriate SBT methodology
Scope 3	
Target type	<ul style="list-style-type: none">• Absolute, intensity, energy-based target, <u>or</u> targets that influence behaviour
Boundary	<ul style="list-style-type: none">• Screening: if Scope 3 > 40%, set Scope 3 targets include majority (2/3 or top 3 categories)
Reductions	<ul style="list-style-type: none">• Challenging and robust• In line with best practice

The Carbon Neutral Protocol requires specific Scope 3 emission categories but does not require the majority of supply chain emissions

Scopes 1 and 2	
Boundary	<ul style="list-style-type: none"> Company-wide Scope 1 and 2
Scope 3	
Boundary	<ul style="list-style-type: none"> Purchased goods and services: water Fuel and energy related activities not in Scope 1 and 2 Upstream transportation and distribution Waste and wastewater treatment Business travel (air, rail, taxi, hire car, hotels) Employee commuting

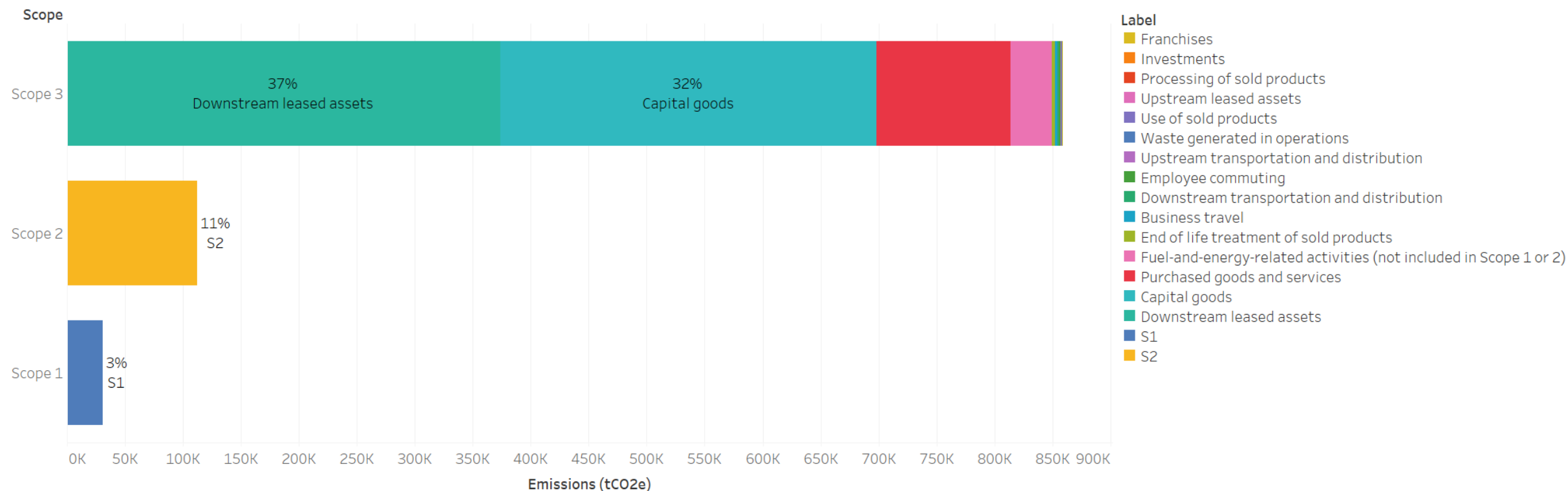
GHG assessment emission sources						
Category		Emission source category (Aligned to the GHG Protocol: Corporate Standard and Value Chain Standard – numbers refer to the emission source numbering within the Value Chain Standard in Appendix 1.2)				Company
GHG Protocol : Corporate Standard Scope 1 and 2, Value Chain Standard Scope 3	Scope 1	Direct emissions arising from owned, leased or directly controlled stationary sources that use fossil fuels and/or emit fugitive emissions (e.g. refrigerant gases)				✓
		Direct emissions from owned, leased or directly controlled mobile sources				✓
	Scope 2	Emissions from the generation of purchased electricity, heat, steam or cooling				✓
	Scope 3 upstream	1	Purchased goods and services	1a	Water supplied to subject	●
		3	Fuel- and energy-related activities (not included in Scope 1 or Scope 2)	3a	Upstream emissions of purchased electricity and fuels	●
				3b	Transmission and distribution (T&D) losses ¹	✓
				3c	All other fuel- and energy-related activities	
		4	Upstream transportation and distribution	4a	Outbound courier deliveries of packages ²	●
				4b	Third-party transportation and storage of production-related goods ³	✓
				4c	Third-party transportation and storage of sold products ⁴	✓
				4d	All other upstream transportation and distribution	
		5	Waste generated in operations	5a	Wastewater	●
				5b	Other waste	✓
		6	Business travel	6a	All transportation by air, public transport, rented/ leased vehicle and taxi	✓
				6b	Emissions arising from hotel accommodation associated with business travel	●
		7	Employee commuting			●

Going beyond the EAUC Scope 3 Guidance



	Category	Considered in guidance
1	Purchased goods and services	✓
2	Capital goods	✓
3	Fuel-and-energy-related activities	✗
4	Upstream transportation and distribution	✗
5	Waste generated in operations	✓
6	Business travel	✓
7	Employee commuting	✓
8	Upstream leased assets	✗
9	Downstream transportation and distribution	✓
10	Processing of sold products	N/A
11	Use of sold products	N/A
12	End of life treatment of sold products	N/A
13	Downstream leased assets	✗
14	Franchises	✗
15	Investments	✗

Case Study: Screening Scope 3 Emissions



Case Study

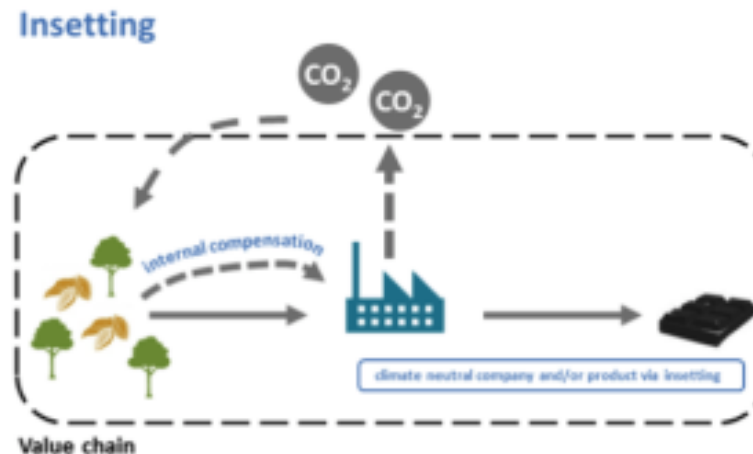
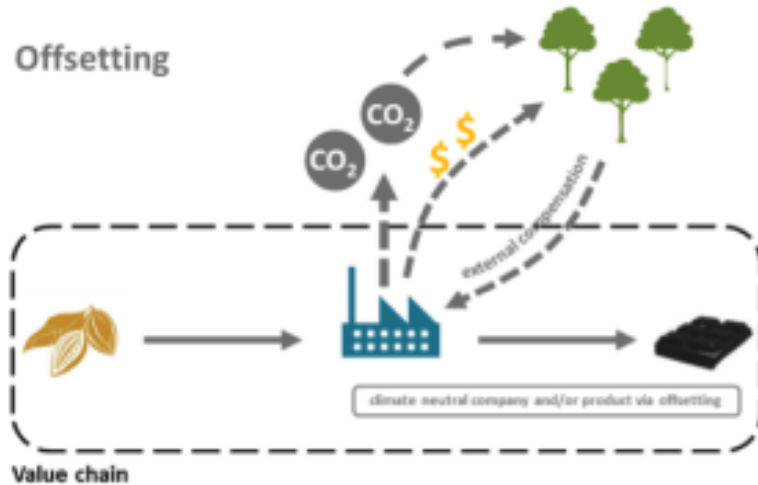


Screening Scope 3 Emissions

- Relevance assessment and data mapping
- Calculation of scope 3 emissions
- Emission hotspots

2. What is a credible removals strategy?

- Are there insetting options that can be explored?
- How should offsetting be approached?
- Are there emissions sources that can or can't be offset (for example, offsets may only be purchased for Scope 3 supply chain emissions)



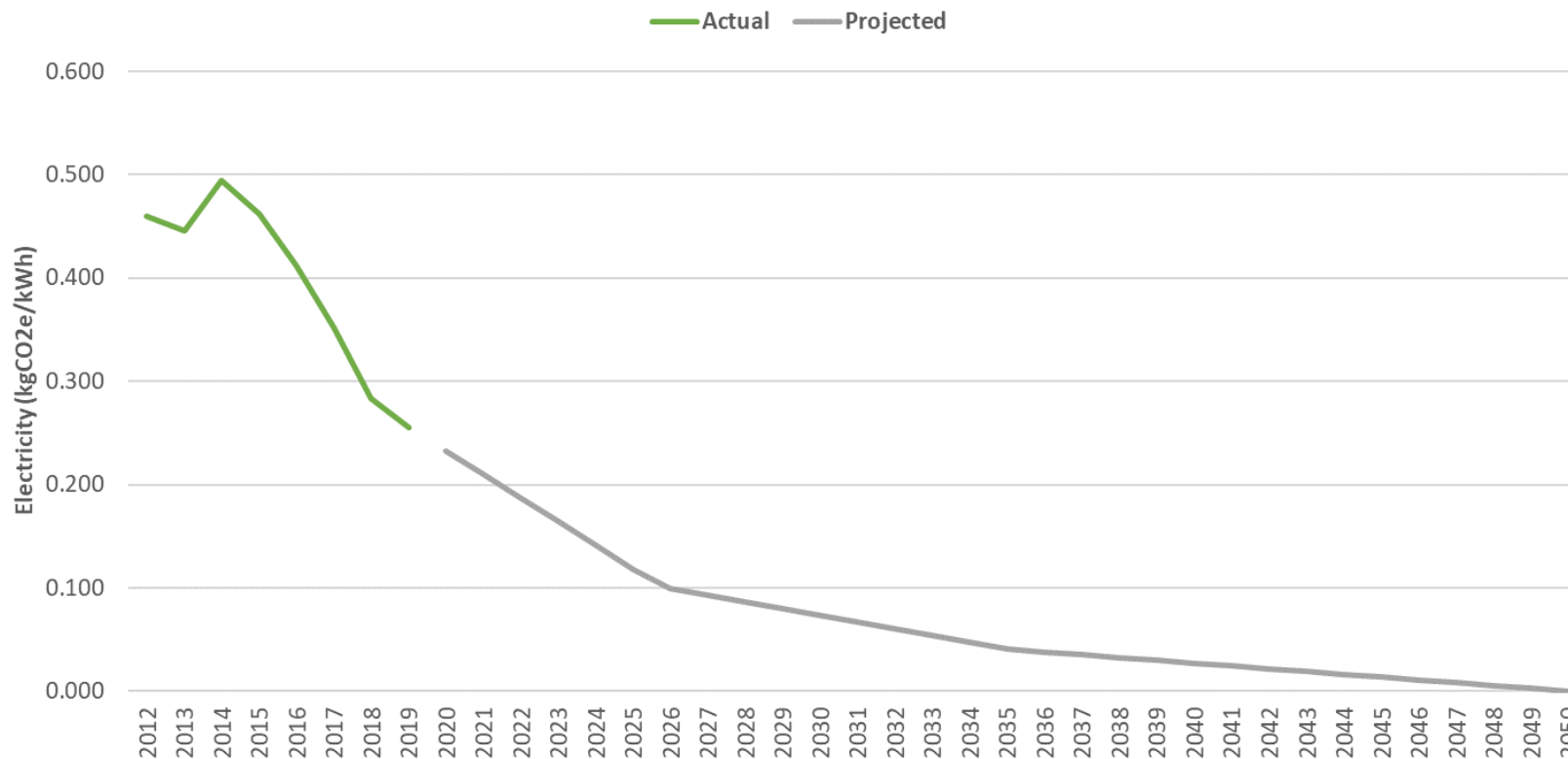
2. Carbon Credentials' view on credible emissions removals

- Organisations should apply a hierarchy to achieve Net Zero :
 1. Reducing emissions from their own operations on an absolute basis
 2. Engaging the supply chain to reduce scope 3 emissions
 3. Exploring insetting (direct sequestration) and offsetting (indirect sequestration) options
- Organisations should be clear on which emissions sources can be balanced to zero through offsets

3. How will net-zero be achieved and funded?

What are the key considerations?

- How to report on emissions from electricity use (location or market based approach)?
- What is the projected rate of UK grid decarbonisation?
- Will all new builds be zero carbon in operation?
- How quickly can planned maintenance integrate zero carbon energy requirements?
- How will the cost and availability of zero carbon heating solutions change?
- How to predict emissions from business travel, commuting and other Scope 3 emission sources?



3. Carbon Credentials' view on ambitious reduction pathways

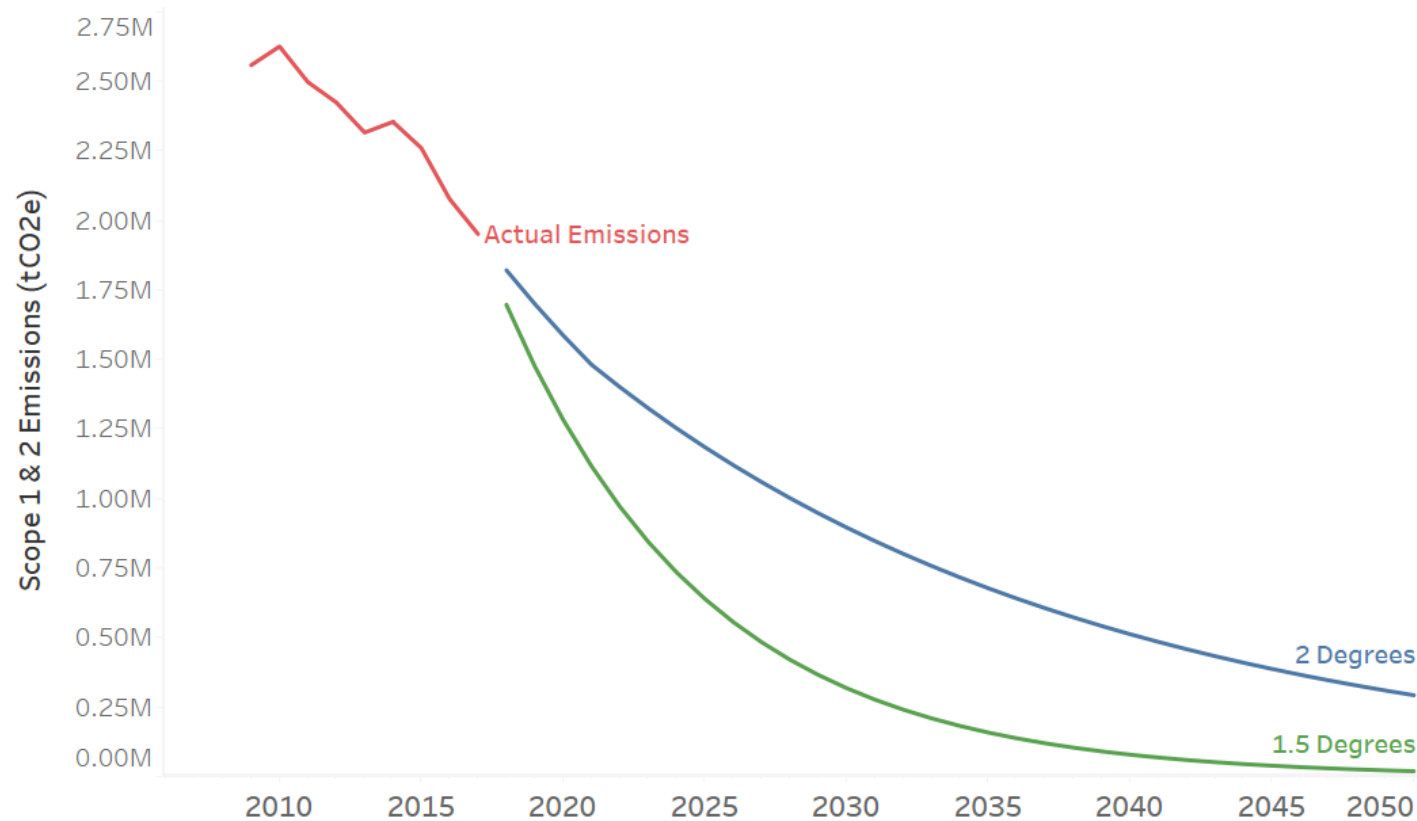
- Organisations should only set net zero carbon targets compatible with science-based target requirements
- Aligning targets with well-below 2°C should be the minimum level of ambition for science-based targets
- Organisations should prioritise the projects that will deliver the largest absolute reductions in the short-term

4. What are the key milestone years for targets?

2050: new legally-binding target for the UK

2040: Manchester's net zero target

2030: climate emergency declaration



4. Carbon Credentials' view on milestone years

- Organisations should determine target milestone years by aligning with a science-based reduction pathway
- The cost and quality of removals is a key factor in choosing which year to aim for net-zero emissions

Next steps

1. Consider if your current targets are doing enough to limit climate change
2. Understand if you have properly analysed your full Scope 3 footprint
3. Raise SBTs and net-zero at your next Sustainability Steering Group meeting
4. Get in touch with us if you would like to find more on will.jenkins@carboncredentials and susie.chalk@carboncredentials.com