

# Progressing towards science-based targets

Helping companies  
identify and tackle  
their value chain  
emissions

This research project  
was part funded by

**WE MEAN  
BUSINESS**

**20**  
YEARS

**BUSINESS  
IN THE  
COMMUNITY  
IRELAND**

# Forewords



Tomás Sercovich  
BITCI CEO

As Business in the Community Ireland’s (BITCI) Low Carbon Pledge enters its third year, the business commitment to resolutely address the climate crisis is ever more needed.

Our Low Carbon Pledge aims to practically demonstrate meaningful business commitment to reducing carbon emissions and acts as a catalyst for wider and more far reaching complementary initiatives and actions. Led by the Low Carbon Sub-group<sup>1</sup> of the BITCI Leaders’ Group on Sustainability<sup>2</sup>, we recognise the barriers and complexities of implementing a fair and just transition to a low carbon economy. The Sub-group aims to support business to overcome these barriers by working collectively to build business capacity, expertise and foster innovation, and critically show leadership and ambition in delivering the changes needed.

The Pledge commitment is now moving towards enabling business to adopt carbon reduction targets based on science, and ultimately achieve a net-zero economy by 2050. The Pledge calls on businesses to work towards setting science-based emission reduction targets (i.e. what science says is necessary to limit global warming to 1.5°C) by 2024 at the latest. This is a fundamental challenge to overcome if we want to build resilient and robust businesses.

To achieve this ambition, business must review and better understand their carbon impact across their value chains. This is a challenging process for even the most carbon mature companies. To support companies with this process and advance our Pledge ambition, we wanted to establish a baseline of Irish businesses’ understanding of their value chain

emissions and identify the barriers that business face on their decarbonisation journey. We were delighted to commission Quantis as our research partner to deliver this important piece of work with us. We wish acknowledge the positive engagement and co-funding of We Mean Business. This research offers an innovative and progressive look at what is happening in business, and presents a credible and robust overview of the signatory companies participating in the Pledge.

The critical insights from this research will guide the future direction, objectives and actions of the Pledge. The guidance and toolkits provided will allow companies to take practical actions to better understand their carbon impact and overcome the challenges and barriers that lay before them. This work outlines a pathway for business to attain the overarching goal of adopting targets based on science. And critically, this research serves to inform and drive the national debate on the adoption of science based target setting and its importance to meeting the national carbon reduction targets.

<sup>1</sup> The Low Carbon Sub-group is chaired by the CEOs of Gas Networks Ireland and EirGrid, with senior representatives from Arup, Dawn Meats, ESB, Musgrave, and Veolia.

<sup>2</sup> The Leaders’ Group on Sustainability is a CEO-led, multi-sectoral collaboration to progress collective business action on the critical sustainability issues facing Irish business.



# Forewords

Quantis



Charlotte Bande  
GLOBAL HEAD OF CLIMATE  
STRATEGY – QUANTIS

Climate change is one of the most important topics of our time and 2020 is a critical turning point in this global challenge.

More than ever, companies must act to reduce their impacts and transition to a sustainable business model.

Limiting global warming to 1.5°C will require a drastic shift in the way goods and services are produced and consumed, and companies have a crucial role to play in accelerating this transition. Their first order of business: developing a comprehensive understanding of their environmental impacts, those occurring within their own four walls and across the wider value chain – from the extraction of raw materials to the end of life of sold products. A comprehensive GHG emissions assessment offers these valuable insights, enabling companies to identify major emission hotspots and their drivers, as well as key levers for meaningful action.

But this is just the beginning. Companies must use this information to set environmental and business-relevant targets to chart the path towards sustainability. And it's not just enough to set targets – they need to be robust science-based targets that are aligned with planetary boundaries. A decade ago, companies could get away with focusing on the low-hanging fruit and incremental changes to improve their sustainability performance. The rules of the game have changed. It's not about becoming more sustainable anymore, it's about being truly sustainable. To build resilience and deliver the changes needed to prevent

the worst-case scenarios of climate change, companies will need to ask what is necessary for the planet and build their business models around it.

Reducing emissions is not an easy or straightforward journey, and there is no clear one-size-fits-all path forward. For the majority of companies, there are many questions that remain unanswered: How can we get started? How can we locate material sources of emissions across our value chain? How can we measure and set meaningful targets while maximizing contributions to climate change limitation? This report was developed in partnership with Business in the Community Ireland (BITCI) to provide companies with answers to these questions, as well as many others, and guidance to support their sustainability journey.

Quantis is delighted to share the fruit of this collaborative effort with BITCI and showcase the great work being done by its signatory members, many of whom are already assessing their value chain impacts and even setting science-based goals. The report also includes a series of best practices and specific sectorial guidance that we hope will help signatories of the Low Carbon Pledge, as well as other businesses, to start their journey towards a science-based climate strategy and make meaningful contributions to limiting global warming to 1.5°C.

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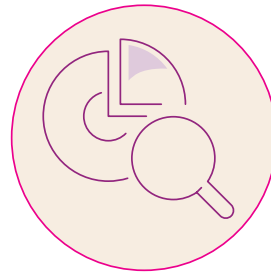
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# 1. Introduction

## 1.1. Increasing the ambition of the Low Carbon Pledge



In Ireland, businesses are joining forces and are responding to the climate action challenge. To date, 58 companies have signed the Business in the Community Ireland's (BITCI) Low Carbon Pledge. The main objective of this Pledge is to demonstrate the commitment of Irish businesses to reducing their carbon and greenhouse gas (GHG) emissions and to act as a catalyst for wider initiatives and actions.

“ The Pledge calls on business to be part of an ambitious collective commitment to: measure, report and communicate on carbon emissions performance; seek external validation of carbon emissions data; embed carbon reduction efforts within core business strategy; invest in low-carbon initiatives, technologies and innovations; collaborate on cross sectoral carbon reduction; and engage in dialogue with policy makers, suppliers, employees and local communities to support Ireland's transition to a low carbon future. ”

The Low Carbon Pledge

With this first commitment to the Pledge, signatory companies have agreed to reduce their Scope 1 and 2 greenhouse gas emission intensity by 50% by 2030. An inaugural report on the Low Carbon Pledge in 2019 and its recent annual update in 2020 identified that participating companies have engaged positively with this first decarbonisation challenge and have already delivered meaningful emission reductions.

BITCI's objective is to push this commitment further and increase the ambition of the Pledge by supporting signatory companies to progress towards committing to set **Science-Based Targets** (SBT) by 2024. To this end, and in view of the increasing requirements from the Science-Based Target Initiative (SBTi), it is crucial to include indirect value chain emissions into company assessments and to move towards reducing these emission hotspots.

Due to highly complex value chains and supply networks, including indirect (or Scope 3) emissions in a company's footprint assessment is a difficult task, let alone reducing these emissions. A step-by-step process has been implemented by BITCI in order to slowly account for indirect emissions and move towards setting ambitious reduction targets by 2024.

In 2020, certain aspects of indirect emissions (business travels, waste consumption and water consumption) have been optionally included into the signatories' reporting. These emissions are relevant and measurable to all businesses regardless of their respective sector. This addition to the Pledge aims to encourage businesses to start assessing their value chain emissions. However, BITCI wants to take this first step further and slowly integrate other and more complex indirect emission sources into the mandatory reporting. To do so, their global objective is to identify which signatory companies are looking into their Scope 3 emissions, and to determine their level of understanding of indirect or Scope 3 emissions, as well as the main challenges companies are facing in this area in order to support them going forward.

## 1.2. Research objectives

Not all companies and businesses have the same understanding and control over their entire value chain emissions and footprint. With the growing understanding of the contribution of Scope 3 emissions to a company’s GHG emissions and the increasing inclusion of Scope 3 emissions by global reporting initiatives and emission reduction pathways (GHG protocols, CDP, SBTi, ...), companies can no longer overlook these sources of emissions. In order to be properly equipped to answer the new challenges linked to climate change and reach the global objectives of the Paris Agreement to limit global warming to 1.5°C, businesses must do their part and account for their value chain emissions in their assessments and reduction strategies.

With this objective in mind, BITCI has asked Quantis to support the progression of the Low Carbon Pledge towards the inclusion of Scope 3 emissions and the adoption of SBTs by businesses in Ireland.

This research will aim to set a baseline of where current Pledge signatories stand with regards to understanding and measuring their Scope 3 emissions as well as setting ambitious emission reduction pathways through SBTs. Based on these findings, this report will present recommended actions to support individual companies, as well as influence the design of the Pledge itself towards its long-term objectives. The key findings of this research will be published by BITCI and will inform and drive the national debate on the adoption of SBTs by businesses.

As mentioned, the main objective of this report is to provide a clear picture of the global best practices in emissions reporting and reduction pathways. The main focus will be on

indirect emissions reporting and measurements as well as SBTs, a scientifically robust emission reduction pathway developed by the SBTi. This report will also aim to analyse and understand where Irish businesses (and more precisely the Pledge signatories) stand with regards to these two topics. Finally, it will provide general and sectorial guidance and recommendations to help companies to start tackling these issues.



### Main objectives

- ☒ **Define a baseline** of where current signatories stand regarding their Scope 3 assessments and SBTs
- ☒ **Identify and describe** the best practices in Scope 3 assessments and SBT setting
- ☒ **Get recommendations and advice** on how to better understand and tackle Scope 3 assessments & set SBTs
- ☒ **Foster internal engagement** around the Low Carbon Pledge and achieving SBTs

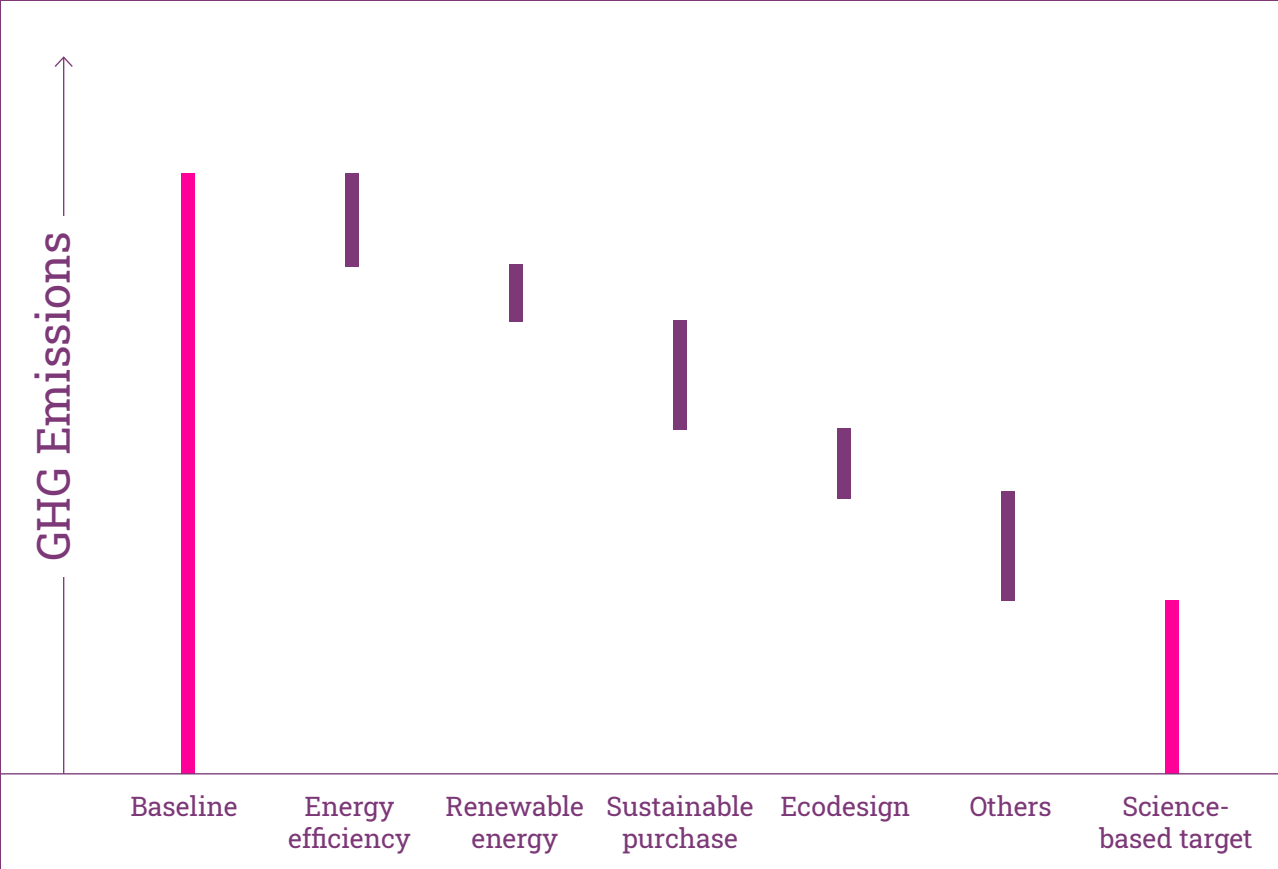
### 1.3. An effective climate strategy

By signing the Low Carbon Pledge, signatories have committed to reduce their emissions drastically by 2030 and play their part in reaching Ireland’s emissions reduction objectives and decarbonising the economy of the country. Aligning businesses’ carbon reduction targets with the Paris Agreement’s objectives and the latest climate science will pave the way towards reaching the national goals. To effectively affect change and reduce their carbon footprint, Irish companies will need to define a clear and ambitious roadmap or climate action plan.

The first step of any robust climate strategy is to assess and measure a baseline of carbon emissions across the company’s entire value chain. Setting a scientifically robust baseline and locating emissions hotspots is critical in order to implement a reduction pathway and reach emissions reduction targets. Limiting the emissions’ assessment solely to direct emissions is no longer sufficient. The inclusion of scope 3 emissions within the Pledge and encouraging signatories towards setting SBTs is thus the logical way forward.

Furthermore, a strong emission baseline including indirect emissions and a deeper understanding of their entire value chain will allow companies not only to address low hanging fruits, but to address more deeply embedded issues and to aim towards substantial decarbonization within their business. A robust, transparent and scientifically-sound baseline will allow companies to set ambitious reduction targets as well as implement concrete business actions across their entire value chain. Finally, implementing an emission reduction roadmap aligned with the latest science will help meet the Paris agreement requirements and keep global warming well-below 2°C and even 1.5°C.

#### Climate strategy and roadmap towards Science-Based Targets



## 1.4. Ireland’s climate policy and targets

<b>60.93</b> million tonnes of CO <sub>2</sub> eq across Ireland in 2018	<b>6%</b> reduction in 2018 compared to 2005 levels but falling short of the 2020 reduction target of <b>20%</b>
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Environmental Protection Agency, Ireland

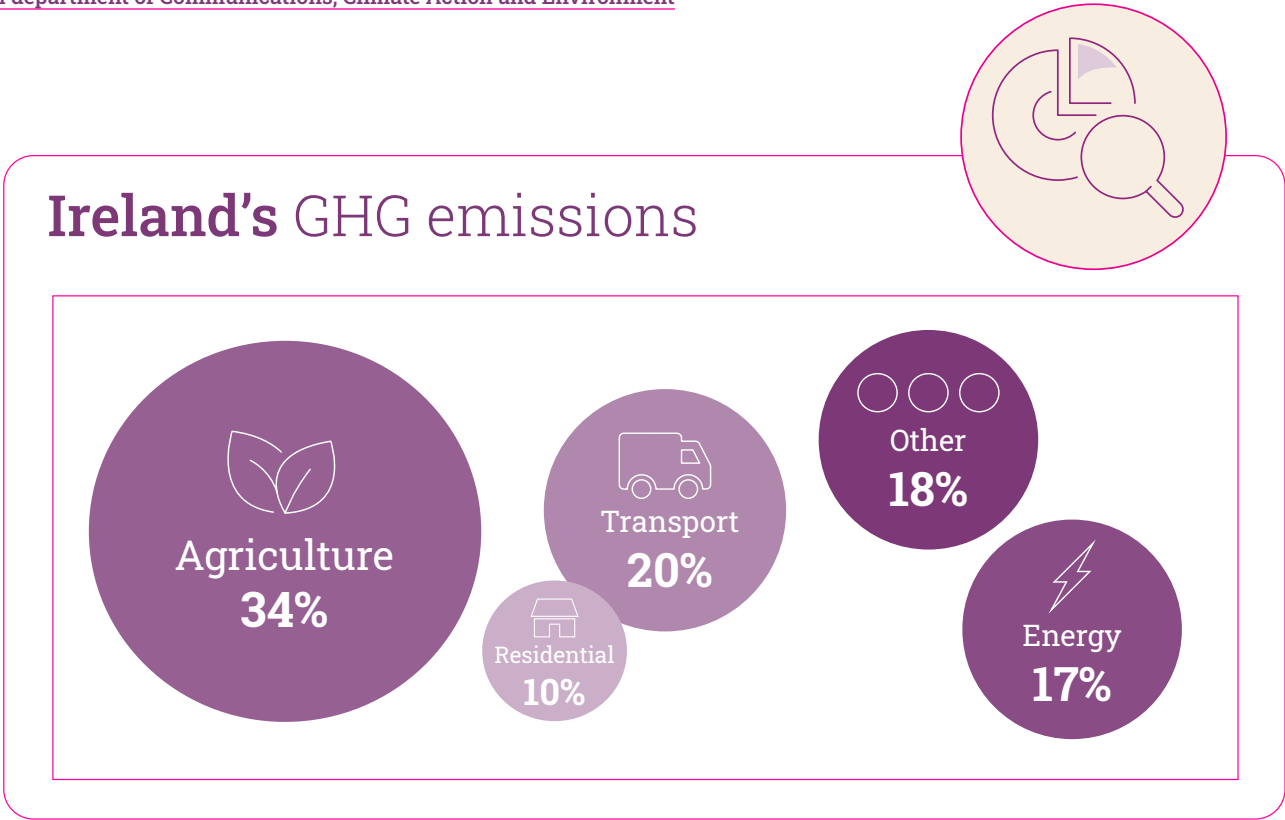
Ireland is a member of both the United Nations Framework Convention on Climate Change (UNFCCC) and of the Kyoto Protocol which provide an international framework to address and mitigate climate change. In 2015, member states signed the Paris Agreement which aims to limit global temperature rise to 2°C above pre-industrial levels, and even pursue efforts to limit this increase to 1.5°C. Ireland’s contribution to these ambitious global objectives is defined by the EU through the Nationally Determined Contributions (NDC). This binding target aims to reduce GHG emissions throughout the EU of at least 40% by 2030 compared to 1990 levels.

These international and European obligations and commitments are reflected in the Irish National Climate Policy and Climate Action Plan<sup>1</sup>. The Climate Policy defines the national objective for Ireland to transition to a low carbon and climate-resilient economy by 2050. On top of an GHG emissions reduction of at least 80% compared to 1990 in the power generation, built environment and transport sectors, Ireland is aiming for carbon neutrality in the agriculture and land use sector.

According to the national Environmental Protection Agency, GHG emissions reduction will fall short of the 2020 target (20% reduction) with a decrease of only 6% compared to 2005 levels. While the energy sector has shown encouraging reductions due to the development

of new renewable energy capacity and a reduction in fossil fuels, emissions related to transports, households and agriculture have all shown an increase. Consequently, Ireland is still well behind its national and international commitments. Reducing national emissions to achieve these targets is and will be a great challenge for a growing Irish economy. It is crucial for leading companies in carbon intensive sectors to pave the way forward and work towards a long-term decarbonisation of the Irish economy. Synergies between companies across different sectors are also more important than ever. Addressing indirect value chain emissions is a very important first step in that direction.

<sup>1</sup>[Irish department of Communications, Climate Action and Environment](#)





# 2. Baseline of respondents - Scope 3 and SBT

## 2.1. Questionnaire and interview objectives

One of the main objectives of this research is to understand where signatory companies stand with regards to their scope 3 assessment and SBTs. In order for the Low Carbon Pledge to move forward and include indirect emissions in its reporting, it is crucial to get an overview of the level of understanding of Irish businesses regarding scope 3 emissions and reduction targets.

Firstly, a questionnaire developed by Quantis and BITCI was sent out to all Low Carbon Pledge signatories. The questionnaire aimed to:

- Identify the companies which already have a good understanding of their scope 3 emissions and are addressing this issue
- understand which GHG Protocol categories of scope 3 emissions are the most widely reported amongst signatories
- locate and understand sectorial differences
- establish the level of understanding and commitment to SBTs
- understand the main barriers, benefits and drivers of scope 3 reporting and target setting

Secondly, ten in-depth interviews were conducted with sustainability leaders of selected companies from a wide range of sectors, with different levels of understanding of their scope 3 emissions and at different levels of progress towards emissions reduction targets. This second stage provided an opportunity to expand on some of the answers given in the questionnaire. These interviews aimed to:

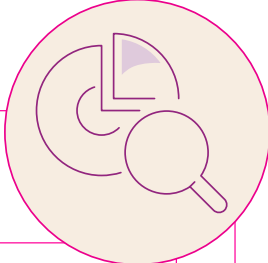
- Dig deeper into real-life issues and the typical barriers that companies face when trying to assess and measure their indirect emissions.
- Identify best practices and recommendations from companies
- Identify the needs of Irish businesses for better Scope 3 and SBTs guidance

### Number of **respondents** to the questionnaire




- ☒ Out of the 58 signatories, **42 companies responded** to the questionnaire, allowing robust conclusions to be drawn and a baseline to be established amongst the Low Carbon Pledge signatories.

### Companies participating in in-depth interviews

- |   |  |
|---|--|
| <input type="radio"/> Dawn Meats          | <input type="radio"/> Aviva                          |
| <input type="radio"/> Marks & Spencer     | <input type="radio"/> Electricity Supply Board (ESB) |
| <input type="radio"/> Gas Network Ireland | <input type="radio"/> Verizon                        |
| <input type="radio"/> Heineken            | <input type="radio"/> Allied Irish Banks (AIB)       |
| <input type="radio"/> Musgrave            | <input type="radio"/> SSE                            |



Questionnaire **results**

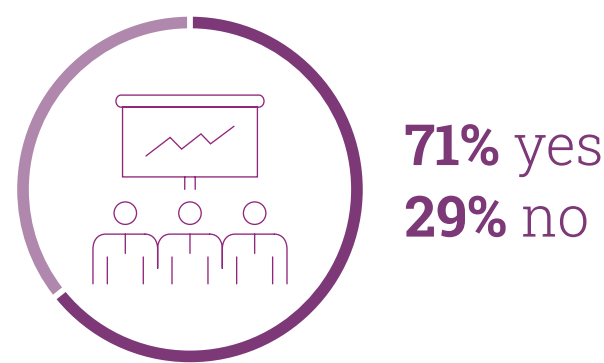
Total <b>respondents</b> amongst signatories		Number of respondents <b>addressing their scope 3</b>	What are the main <b>barriers</b> to scope 3 emissions assessment?
<div><b>42 respondents</b> (80%)</div>		<div><b>71% yes</b> <b>29% no</b></div>	<div><b>1.</b> Lack of guidance</div> <div><b>2.</b> Data access and supply chain engagement</div> <div><b>3.</b> Time, resources and leadership buy-in</div>
Scope 3 <b>categories</b> assessed by businesses			What are the main <b>drivers</b> to scope 3 emissions assessment?
<div><div><div>● <b>90%</b> Business travel</div><div>● <b>70%</b> Waste generated in operations</div><div>● <b>57%</b> Fuel and energy-related activities</div><div>● <b>27%</b> Downstream transportation and distribution</div><div>● <b>23%</b> Purchased goods and services</div><div>● <b>20%</b> Employee commuting</div><div>● <b>17%</b> Upstream transportation and distribution</div></div><div><div>● <b>17%</b> Capital goods</div><div>● <b>17%</b> End-of-life treatment of sold products</div><div>● <b>17%</b> Processing of sold products</div><div>● <b>13%</b> Upstream leased assets</div><div>● <b>13%</b> Use of sold products</div><div>● <b>7%</b> Downstream leased assets</div><div>● <b>3%</b> Franchises</div><div>● <b>0%</b> Investments</div></div></div>	<div></div>	<div><b>1.</b> CSR (<b>98%</b>)</div> <div><b>2.</b> Reputational (<b>75%</b>)</div> <div><b>3.</b> Operational efficiency (<b>54%</b>)</div> <div><b>4.</b> Regulatory (<b>36%</b>)</div>	
			What are the main <b>benefits</b> to scope 3 emissions assessment?
			<div><b>1.</b> Customer relationship and reputation</div> <div><b>2.</b> Internal and external engagement</div> <div><b>3.</b> Flag risks and find new opportunities</div> <div><b>4.</b> Sustainable growth / low carbon footprint</div> <div><b>5.</b> Value chain efficiency</div>

## 2.2. Scope 3 assessment baseline

The first part of the questionnaire was designed to get a better understanding of which companies are already addressing all or parts of their scope 3 emissions.

Out of the 42 respondents, more than 71% of signatories are already reporting and assessing all or parts of their value chain emissions. This number is highly encouraging but is expected to increase in the next few years as internal and external pressure to account for indirect emissions grows. The push from BITCI in 2020 to include some indirect emissions (business travel, waste consumption and water consumption) in the yearly reporting will also drive a growing number of signatories to start addressing their value chain emissions. At the time of the survey, 30 companies were assessing parts or all of their indirect emissions. For most of the remaining companies, it is clear that they are in the process of including scope 3 emissions into their assessments and reporting. As mentioned, the inclusion of business travel, waste and water consumption in the Low Carbon Pledge in 2020 has help drive this evolution.

### Number of respondents **addressing** their scope 3



### Main **Scope 3** categories reported

	Cat 6. Business travel ( <b>90%</b> )
	Cat 5. Waste generated in operations ( <b>70%</b> )
	Cat 3. Fuel and energy related activities ( <b>57%</b> )
	Cat 9. Downstream transportation and distribution ( <b>27%</b> )

The second output from the questionnaire was an overview of the categories that are most assessed by companies already addressing their scope 3 emissions. The two most common categories, business travel (category 6) and waste (category 5), were addressed by 90% and 70% of companies addressing their scope 3. These categories are the most widely reported probably due to the ease of access to data and relatively easy calculation of the resulting carbon emissions. The inclusion of these two categories into the reporting for the Low Carbon Report 2020 has also encouraged companies to address these particular hotspots. Category 3 (Fuel and energy-related activities) was the third most commonly reported category and was addressed by more than 56% of reporting companies. Downstream transportation, and purchased goods and services were also well represented (+25%). The Investments category was not assessed by any of the respondents despite more than eight companies working exclusively in the financial sector. However, this is not surprising considering that methodologies for scope 3 assessment of investments and financial institutions are being developed and have not been released yet. The reporting is expected to increase rapidly when clear guidance and the assessment methodology are available.



Although these results show a general trend regarding scope 3 assessments, they need to be treated carefully, as material scope 3 categories vary widely between sectors. While some categories (such as business travel, waste generated or employee commuting) might apply to most businesses, other categories will only be material for companies in a specific sector. For example, purchased goods and services (category 1) might cover more than 90% of total indirect emission for an agri-food business and be almost completely overlooked in a professional services business. In order to fine tune the assessment and provide a more sectorial and granular analysis, sectorial guidance sheets have been developed and are available in this report.

### Example of a sectorial guidance sheet



Regarding communication and reporting around corporate footprinting and emissions assessments, the questionnaire results showed that about two thirds (64%) of companies assessing their scope 3 emissions are communicating internally/externally on this topic. The most developed means of communications are CDP reporting and the use of internal/external sustainability reports. This result highlights the importance companies place on engaging and communicating progress to clients and stakeholders. A result that aligns with one of the main drivers of scope 3 assessment: reputational risks. When asked what was driving the need to assess scope 3 emissions, corporate social responsibility (98%) and reputational risks (75%) scored way higher than increased operational efficiency (54%) and regulatory changes (36%). This showcases the growing demand from customers and stakeholders for companies to reduce their carbon footprint and to provide more comprehensive and detailed emissions assessments.

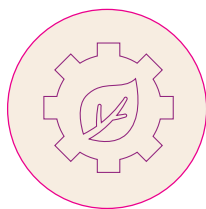
### What are the main **drivers** to scope 3 emissions assessment?

	1. CSR ( <b>98%</b> )
	2. Reputational ( <b>75%</b> )
	3. Operational efficiency ( <b>54%</b> )
	4. Regulatory ( <b>36%</b> )

The main barriers to Scope 3 assessment raised by respondents:

- 1. **Lack of guidance:** Especially for companies just starting to include scope 3 emissions, the lack of guidance is critical. The complexity of scope 3 assessment can discourage companies just embarking on this journey. Not knowing where to start, who to engage or how to measure specific emissions have all been highlighted as limiting factors. The lack of more specific sectorial guidance (for the financial sector for example) has also been noted as such.
- 2. **Data access and supply chain engagement:** For most of the respondents, the complexity of their value chain is a key barrier. They pinpoint the difficulty of fully comprehending the entirety of their value chain and of defining the scope and boundaries to their assessment. A complex value chain also leads to difficulties in obtaining quality data from suppliers in order to perform robust indirect emissions measurements.
- 3. **Time, resources and leadership buy-in:** The data collection process for corporate footprints requires time and resources that are not always at the disposal of the reporting team. This highlights the importance of internal engagement and leadership buy-in to implement an effective climate strategy and emissions assessment.

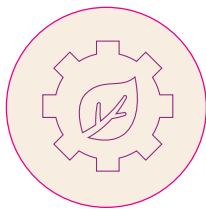
What are the main **barriers** to scope 3 emissions assessment?



- 1. Lack of guidance
- 2. Data access and supply chain engagement
- 3. Time, resources and leadership buy-in

On top of the carbon emission reduction potential resulting from a robust carbon footprint, many other benefits were cited by the respondents. Amongst these were a wider understanding of the business, improved relationships with customers, suppliers and stakeholders, improved reputation, better internal engagement, and finally, an increased knowledge of the risks and opportunities related to climate change.

What are the main **benefits** of scope 3 emissions assessment?



- 1. Customer relationship and reputation
- 2. Internal and external engagement
- 3. Flag risks and find new opportunities
- 4. Sustainable growth / low carbon footprint
- 5. Value chain efficiency

Finally, the stated benefits and drivers show that the business case for the measurement of scope 3 emission is evolving rapidly. Furthermore, it showcases that measuring and assessing indirect emissions not only allows to draw a robust emissions baseline and starting point for a climate strategy, it also offers meaningful strategic and business advantages upon which companies can build. The business case of assessing indirect emissions is highly aligned and similar to the business case for setting SBTs.

## 2.3. Science-Based Targets baseline

The second part of the questionnaire aimed to better understand and define a baseline of where respondents stand with regards to emissions reduction targets and more specifically SBTs.

The ultimate goal of measuring carbon emissions is to design a robust and effective reduction strategy. At the time of the survey, amongst the 30 respondents already addressing parts of or all their scope 3 emissions, 26 companies have already set or are in the process of setting carbon reduction targets to decrease their total carbon footprint. However, these targets do not necessarily include scope 3 reduction objectives for all companies. Most targets include scope 1 and 2 only. Surveyed companies mentioned their objective to include scope 3 into these targets. However, they are waiting to have a better understanding of their scope 3 emissions before including it in their respective targets.

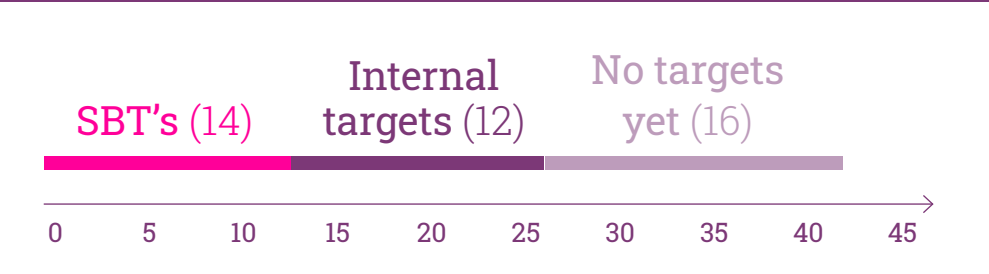
Regarding SBTs, 50% of respondent who have set a reduction target are doing so via the Science-Based Target Initiative and are aligned with SBT criteria. Of the 26 companies which have already set internal reduction targets, 14 have already submitted or set SBTi aligned targets. In order to comply with SBTi criteria, Scope 3 emissions will have to be included and SBT committed companies are therefore already working on integrating scope 3 emissions in their targets. These numbers are very encouraging and positive. The other 13 surveyed companies with reduction targets do not yet report to the SBTi. However, for the majority, these companies have already measured intensity-based targets and are aiming to cascade them down to fit the SBT criteria in the short term while others are in the process of submitting their targets. Notably, a few signatories are already trying to go further than the standard “Well Below 2°C” pathway and have

pledged to aim for net-zero by 2030, setting a great example for other signatories to follow in their footsteps.

Finally, respondents were asked to explain the main barriers faced in the process of setting SBTs. The difficulties highlighted in the scope 3 assessment section are evidently also applicable when setting scope 3 targets. The lack of clear methodology for setting scope 3 emission reduction targets was cited most often and relates to the lack of clear methodology to assess certain parts of scope 3 emissions. As for scope 3 assessments, the lack of specific sectorial guidance was also highlighted.

To conclude, some respondents noted the constraining nature of SBTs and the significant internal resources required to engage on this process.

Respondents **committed** to SBTs or internal targets





Respondents already committed to the Science-Based Targets Initiative



Company	Status	Target
ABP Food Group	Target set	ABP Food Group commits to reduce absolute scope 1 and 2 GHG emissions 27% by 2030 from a 2016 base year and also commits to reduce absolute scope 3 GHG emissions from purchased goods and services by 17% by 2030 from a 2016 base year.
Britvic	Target set	Britvic PLC commits to reduce absolute scope 1 and 2 GHG emissions by 50% by 2025 from a 2017 base year and absolute scope 3 GHG emissions by 35% by 2025 from a 2017 base year.
BT	Target set	BT commits to reduce GHG emissions by 87% in tons of CO <sub>2</sub> e per unit of gross value added by 2030 from a 2016/2017 base-year. This is in line with current international policy and climate science, being BT's share of the global emissions reductions needed to limit global warming to 1.5°C. The company also commits to reduce supply chain GHG emissions by 29% over the same time-period.
Dawn Meats	Target set	Dawn Meats Group commits to reduce absolute scope 1 and 2 GHG emissions 30% by 2030 from a 2016 base year and commits to reduce scope 3 GHG emissions of its purchased goods and services 28% per tonne of finished product by 2030 from a 2016 base year.
Diageo	Target set	Diageo plc commits to reduce absolute scope 1 and scope 2 emissions by 50% by 2020 from a 2007 base-year. Also, the Company commits to reduce its GHG emissions across the total supply chain of its products by 30% within the same timeframe.
Marks & Spencer	Target set	Marks & Spencer commits to reduce absolute scope 1 and 2 GHG emissions 80% by 2030 below 2007 levels and has a longer-term vision to achieve 90% absolute GHG emissions reductions by 2035, below 2007 levels. Marks & Spencer also commits to reduce scope 3 GHG emissions by 13.3 MtCO <sub>2</sub> e between 2017 and 2030.
Ricoh	Target set	Ricoh commits to reduce absolute scope 1 and 2 GHG emissions 63% by 2030 from a 2015 base year and commits to reduce absolute scope 3 emissions from purchased goods and services, transportation, and product use emissions 20% by 2030 from a 2015 base year.
Sodexo	Target set	Sodexo commits to reduce absolute scope 1, 2 and 3 GHG emissions 34% by 2025 from a 2017 base year. Sodexo also commits to increase annual sourcing of renewable electricity from 20% in 2017 to 100% by 2025.
SSE	Target set	SSE plc commits to reduce scope 1 GHG emissions 60% per gCO <sub>2</sub> e/kWh by 2030 from a 2018 base year and commits to reduce absolute scope 1 and 2 GHG emissions 40% by 2030 from a 2018 base year. SSE plc commits that 50% of its suppliers by spend will have a science-based targets by 2024 and commits to reduce absolute GHG emissions from use of products sold 50% by 2034.
Tesco	Targets set	Tesco commits to reduce scope 1 and 2 GHG emissions 60% by 2025, using a 2015 base-year. Tesco also commits to reduce its scope 3 GHG emissions 17% by 2030, using a 2015 base-year.
Veolia	Targets set	Veolia commits to reduce absolute scope 1 and 2 GHG emissions 22% by 2034 from a 2018 base year.
An Post	Committed	
Heineken	Committed	
Sky Group	Committed	

# 3. Main barriers to scope 3 assessments

The following section will provide some general guidance to companies to help them overcome the three main barriers to scope 3 assessment and setting SBTs raised by the signatories:

## Main **barriers** to scope 3 emissions assessment

1	Lack of guidance
2	Data access and supply chain engagement
3	Time, resources and leadership buy-in

Sector specific guidance will be provided in the sectorial guidance sheets.

## 3.1. Lack of Guidance

In the questionnaire and follow-up interviews, one of the key barriers that has been mentioned overwhelmingly is the lack of guidance and the complexity of scope 3 assessments and SBTs. Especially for companies just starting to include scope 3 emissions, this lack of guidance and methodology is critical. The complexity of scope 3 assessments can discourage companies

embarking on this journey. Not knowing where to start, who to engage or how to measure specific emissions have all been highlighted as limiting factors by signatories. The following section will present the general methodology behind the GHG protocol, scope 3 assessment as well as present the Science-Based Target initiative and help companies to better understand these processes.

## Scope 3 emissions and the GHG Protocol

As impacts from climate change are ever increasing, governments are already setting new climate policies and targets, and providing additional market-based incentives to drive significant reductions in emissions. Businesses need to participate fully in this transition, as the decisions they make now can have lasting impacts on their business. As greenhouse gas emissions are the main driver of climate change, an effective corporate climate change strategy aiming to reduce a company's footprint requires a thorough understanding of its GHG emissions.

A corporate GHG inventory is a tool to provide such an understanding. It allows businesses to account for their emissions-related risks and opportunities and focus their efforts on their greatest GHG emission hotspots. To help companies on this journey, a multi-stakeholder partnership of businesses, non-governmental organizations (NGOs), governments, and others (led by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD)) have introduced the **Greenhouse Gas Protocol** (GHG Protocol).

Launched in 1998, its mission is to develop internationally accepted greenhouse gas accounting and reporting standards and tools, and to promote their adoption in order to achieve a low carbon economy worldwide. This standard has since been widely accepted and adopted by businesses around the world as the international norm.

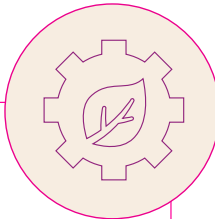
The **Corporate Standard** classifies a company’s direct and indirect GHG emissions into three “scopes” using the life cycle or value chain approach. The figure below provides an overview of these three scopes as well as the main “categories” or emission sources included in each of the scopes.

Businesses worldwide are becoming more and more adept at calculating scope 1 and scope 2 emissions. However, as GHG accounting expertise has grown, the realisation that significant emissions result mainly from value chain activities not captured by scope 1 and scope 2 inventories has led companies to dig further into this topic. Indeed, scope 3 associated risks and opportunities have grown largely in recent years, in parallel with a global increase in awareness amongst the general public. Until recently, companies mainly focused their efforts on emissions from their own operations. Difficulty engaging with various stakeholders to collect high quality data and the lack of direct control are likely to be the main barriers to integrating value chain emissions into a company’s assessment.

Increasingly, companies understand the need to take responsibility and to account for GHG emissions along their entire value chains and product portfolios if they want to fully comprehend their carbon and greenhouse gas footprint and implement effective climate strategies. Scope 3 emissions can represent the largest source of emissions for companies and thus present the most significant opportunities to influence GHG reductions, achieve GHG-related business objectives, and align with more stringent environmental legislation worldwide. Developing a full corporate GHG emissions inventory (which includes scope 1, scope 2, and scope 3 emissions) enables companies to understand and locate their full impact across their value chain and focus and prioritise their efforts on specific hotspots.

The **three scopes** of the GHG Protocol

Scope 1	Direct GHG emissions from owned or controlled sources.
Scope 2	Indirect emissions from the generation of purchased energy and electricity
Scope 3	All other indirect emissions (not included in scope 2) that occur throughout the value chain of the company, including both upstream and downstream emissions.





In order to include scope 3 emissions in their reporting standards (scope 3 emissions assessment was optional in the Corporate Standard), the GHG Protocol Scope 3 Standard<sup>2</sup> has been developed.

## Assessing scope 3 emissions

Before jumping into how to measure and assess value chain emissions, it is critical to fully understand what are indirect or scope 3 emissions. According to the GHG Protocol, indirect emissions are a consequence of the activities of the reporting company but occur at sources owned or controlled by another company. With scope 1 including all direct emissions, indirect emissions are separated further between scope 2 and scope 3. As mentioned before, scope 2 only includes indirect emissions from the generation of purchased energy and electricity. Scope 3 consequently accounts for all other emissions occurring along the value chain of the company within its organisational boundaries both upstream and downstream. All three scopes are strictly and mutually exclusive for the reporting company so that double counting of emissions is avoided. Scope 1, 2 and 3 emissions thus represent the total GHG emissions of the reporting company. While a company has full control over its direct emissions, it only has influence over its indirect emissions. This particular point is of crucial importance when setting an emission reduction pathway and will be discussed further.

The GHG Protocol divides the scope 3 emissions in 15 different categories. The categories provide a framework to organise emission assessments more easily as well as locate hotspots and understand where material emissions happen along the value chain. Again, the categories are mutually exclusive to avoid the issue of double counting. The 15 categories are listed in the table below. For a more comprehensive understanding of each category, we highly recommend consulting section 5.5 of the **Scope 3 Standard**.

Upstream or downstream

Scope 3 Categories

Upstream Scope 3 emissions	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
Downstream Scope 3 emissions	9. Downstream transportation and distribution
	10. Processing of sold products
	11. Use of sold products
	12. End-of-life-treatment of sold products
	13. Downstream leased assets
	14. Franchises
	15. Investments

<sup>2</sup> <https://ghgprotocol.org/standards/scope-3-standard>

In order to understand which activities or categories should be included in their assessment, companies first need to assess their materiality. This report provides support and guidance to the signatories engaging in this process. General outlooks and recommendations as well

as more specific sectorial guidance will be developed further. Nevertheless, the GHG Protocol already provides a set of criteria to help businesses assess which scope 3 categories might be material and relevant and thus worth deep diving into.



Criteria	Description of activities
Size	Contribute significantly to the company's total anticipated scope 3 emissions
Influence	Potential emission reductions could be influenced by the company
Risk	They contribute to the company's risk exposure (e.g., climate change related risks such as financial, regulatory, supply chain and reputational risks)
Stakeholders	They are deemed critical by key stakeholders (e.g., customers, suppliers, investors, or civil society)
Outsourcing	They are outsourced activities previously performed in-house or activities outsourced by the reporting company that are typically performed in-house by other companies in the reporting company's sector
Sector guidance	They have been identified as significant by sector-specific guidance
Spending or revenue analysis	They are areas that require a high level of spending or generate a high level of revenue (and are sometimes correlated with high GHG emission)

General resources and guidance on Scope 3 assessments

The **GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard** provides requirements and guidance for companies and other organisations to prepare and publicly report a GHG emissions inventory that include indirect emissions resulting from value chain activities (i.e., scope 3 emissions). Following the reporting standards also supports transparent, standardised and consistent public reporting of corporate and value chain GHG emissions. The GHG Protocol website provides a variety of useful GHG calculation tools and guidance, including:

- Detailed guidance for calculating scope 3 emissions, including calculation methods, data sources and examples
- Several cross-sector and sector-specific calculation tools, which provide step-by-step guidance, together with electronic worksheets to help companies calculate GHG emissions from specific sources or sectors

Another available resource to start the journey of scope 3 assessment is the Scope 3 Evaluator<sup>3</sup> developed by Quantis and the World Resources Institute (WRI). It is a free, web-based tool that offers a clear starting-point for companies aiming to take a full inventory of scope 3 emissions. This tool provides a simple yet complete scope 3 footprint, which can be used as a first step to identify hotspots and prioritize action areas.

<sup>3</sup> <https://ghgprotocol.org/scope-3-evaluator>

# Science-Based Targets

Once a company has located and measured its emission hotspots across its value chain, the next objective is to set a credible and ambitious emission reduction strategy. The Science Based Targets Initiative has developed a tool and guidance to help companies define emission reduction targets and pathways in order to achieve the global carbon reduction objectives.

The Science Based Targets Initiative (SBTi)<sup>4</sup> was launched by the Carbon Disclosure Project (CDP), the United Nations Global Compact, the World Resource Institute (WRI) and the World Wildlife Fund (WWF) in 2015.

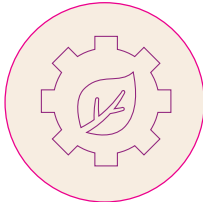
Its main objective is to allow companies to set greenhouse gas emission reduction targets aligned with science, in order to limit global warming to well-below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C. It gives companies a clear vision of where they need to be in the future, challenging them to transform their business and help create a low-carbon economy where they can thrive. IPCC's<sup>5</sup> reports have served as the basis for elaborating science-based scenarios of emissions' reduction. In October 2018, the Intergovernmental Panel on Climate Change released a special report commissioned by COP21 to assess what would be required to go beyond 2°C, limiting global warming to 1.5°C.

<sup>4</sup> [SBTi's website](#)

<sup>5</sup> [IPCC's website](#)

The world is currently emitting approximately 50 GtCO<sub>2</sub>e/year and, as the population and the economy continue to grow, is expected to emit 56.3 GtCO<sub>2</sub>e/year by 2030. Even including all current government pledges, global temperatures are projected to increase by 2.7 to 3.7°C by the end of this century, with devastating impacts on natural systems, water resources, agricultural productivity, etc. A science-based target setting method refers to a procedure that companies can follow in order to determine a level of decarbonization that is consistent with the goal of limiting global warming to well-below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C.

## IPCC Report **main messages**

	The world will face <b>severe climate impacts</b> with 1.5°C of warming, significantly worse with 2°C
	We have until 2030 to completely shift our way of doings, <b>reducing by 45% global emissions</b> compared to 2010 if we want any chances of staying below 1.5°C increase
	<b>Reaching 1.5°C degree will require to be Net Zero carbon in 2050</b> , i.e. reducing GHG emissions (CO <sub>2</sub> eq) in line with SBTi pathways and compensating residual carbon (CO <sub>2</sub> ) emissions



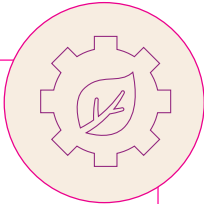
Other than having emission reduction pathways aligned with the most recent science, SBTs offer a wide range of other benefits to businesses. By actively addressing and assessing their indirect emissions and setting reduction objectives, companies will be able to:

- locate and mitigate business risks along their entire value chain, such as raw material availability
- have a more in-depth knowledge of value chain impacts and thus find new opportunities and explore new business models to ensure a sustainable growth
- drive innovation, increase efficiency and lead to bigger investments in new technologies
- send a strong message to customers and suppliers
- avoid reputational risks linked with increasing customer pressure and global calls for the long-term decarbonisation
- increase brand recognition
- foster internal and external engagement by collaborating with employees, suppliers and various stakeholder to reach the objectives

At the end of 2019, the SBTi published its progress report<sup>6</sup> assessing the evolution and the state of SBTs worldwide. The report shows that the initiative keeps gaining momentum, doubling its rate of commitments in the last year. Since October 2019, more than 50 companies had joined, reaching 778 at the end of the year. To date, more than 900 companies are taking action and have set or are in the process of setting SBTs

<sup>6</sup> <https://sciencebasedtargets.org/wp-content/uploads/2019/12/SBTi-Progress-Report-2019-FINAL-v1.2.pdf>

### Key numbers on the state and breadth of SBTs at the end of 2019



Scope 1&2 targets	Cover 752 million tons CO <sub>2</sub> e annually. When all are met, annual emissions will have been reduced by 35% from the base year, driving up to \$18 billions of investment into mitigation
Scope 3 targets	Cover 3.9 billion tons CO <sub>2</sub> e, equivalent to the annual emissions of 828 million cars
Ambition	30% of current targets are aligned with 1.5°C, 25% Well-below 2°C and the rest is 2°C
Absolute vs Intensity	65% are absolute targets, 25% intensity and 10% suppliers' engagement
Target years	Most set targets have a 2030 timeframe
Sectors	Adoption of SBTs remains uneven across different sectors. For many of the most critical sectors of the economy, the SBTi provides sector-specific resources or is in the process of developing these resources.

## How to set Science-Based Targets?

SBTs work by allocating the global carbon budget the world can consume by the year 2100 among sectors and companies, looking at how they plan to evolve and what reduction potential exists. The global climate change target and necessary reduction pathways are defined by the SBTi. Targets are considered “science-based” if they are in line with the level of decarbonisation required to keep global temperature increase well below 2°C compared to pre-industrial temperatures and even aim to reach 1.5°C. Science-based target setting methods can often be described by three main elements:

- A carbon budget: the total GHG emissions which may be emitted within the limits of a well-below 2°C or 1.5°C rise of global average temperatures.
- An emissions scenario: the distribution of the available carbon budget over time.
- An allocation mechanism: the way the carbon budget underlying a given emissions scenario is allocated among companies with the same level of disaggregation.

In 2020, SBTi updated its criteria<sup>7</sup>, resources<sup>8</sup> and recommendations<sup>9</sup> to set SBTs aligned with a well below 2°C or 1.5°C pathway. This update reflects current developments in best practices and climate science. To follow and achieve this 1.5°C pathway, companies are greatly encouraged to set science-based emission reduction targets.

<sup>7</sup> <https://sciencebasedtargets.org/wp-content/uploads/2019/03/SBTi-criteria.pdf>

<sup>8</sup> <https://sciencebasedtargets.org/wp-content/uploads/2017/04/SBTi-manual.pdf>

<sup>9</sup> <https://sciencebasedtargets.org/wp-content/uploads/2019/04/foundations-of-SBT-setting.pdf>

### Four steps process to set SBTs



The SBTi is constantly working on developing guidelines and methodologies to set SBTs for companies from different sectors. The status of these developments is summarized in the table below.

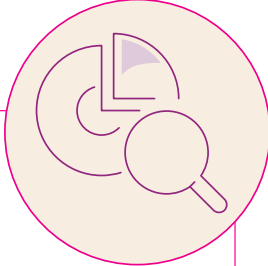


Sector	Expected delivery	Deliverable
Financial institutions	September 2020	Full methodology
Oil and gas	Q4 2020	Full methodology
Aluminum	Q2 2020	Summary report
Chemicals	Q4 2020	Summary report
Forest, land-use & agriculture	Q2 2021	Full methodology
Aviation	Q2 2021	Full methodology
Shipping	Q4 2020	Full methodology
Transport: road vehicles	-	Full methodology
Electric utilities	Q2 2020	Sector guidance
Information and communications technologies	-	Sector guidance
Apparel and footwear	-	Sector guidance

As mentioned earlier, the SBTi has developed a set of criteria companies are required to follow if they want to embark on the SBT journey. The full criteria are available on the SBTi website. Here is a short list of the most critical criteria required to qualify for an SBT:

- The base year should be maximum 2 years prior to the year of submission. For instance, a company submitting its targets in 2020 will have to have a baseline from 2019 or 2018 at the latest.
- Target year should be in a range of 5 to 15 years of when the company submits the target. The company can decide to complement this target by a longer-term one if wanted.
- Results already attained are not admissible.
- Avoided emissions fall under a separate accounting system from corporate inventories and do not count toward SBTs.
- The use of offsets is not counted as emission reduction toward the progress of companies' SBTs. The SBTi requires that companies set targets based on emission reductions through direct action within their own operations or their value chains.
- Companies whose Scope 3 emissions cover more than 40% of their Scope 1, 2 and 3 emissions must submit a Scope 3 target.
- Companies have to review their targets every 5 years to ensure these are still relevant and align with the latest criteria in place.





Two allocation mechanisms have been developed by the SBTi and have led to **three different methods** to measure a Science-Based Target:

1. Convergence of carbon intensity	<b>The rate of convergence is a function of</b> <ul style="list-style-type: none"><li>• the initial carbon intensity of the company</li><li>• the 2°C carbon intensity of the sector</li><li>• the growth of the company relative to the growth of the sector</li></ul>	2. Contraction of absolute emissions	<b>Economic-intensity contraction:</b> within the same sectorial or geographical level, all companies decrease their carbon-intensity at the same rate from the chosen base year. The available carbon budget is associated with a level of activity specific to a sector or to an area.
<p>A company's carbon-intensity will converge towards the recommended carbon-intensity of the sector it belongs to at a rate that will ensure the Well-Below 2°C or 1.5°C carbon budget. The method that follows this allocation approach is called the Sectorial Decarbonization Approach (SDA).</p>		<p>All companies within the same sector or region reduce emissions at the same fixed rate.</p> <ul style="list-style-type: none"><li>• 1.5°C alignment (Scope 1&amp;2): 4.2% linear annual reduction rate</li><li>• Well-Below 2°C (Scope 1&amp;2): 2.5 % linear annual reduction rate</li><li>• 2°C alignment (Scope 3)</li></ul>	

<https://sciencebasedtargets.org/sda/>

The choice between the convergence and contraction approach is not always straightforward. If some methods are easier to implement, others are more scientifically robust and applicable to various sectors. The benefits and shortcomings of the absolute and intensity allocation methods are summarised in the table below. As best practice it is recommended to use both intensity and absolute contraction to model targets.


	Absolute	Intensity
Pros	<ul style="list-style-type: none"><li>• Ensures reaching the global carbon budget</li><li>• May seem more ambitious if the company grows since the company will engage to reduce its emissions by a predefined quantity</li><li>• Easier to read by stakeholders</li></ul>	<ul style="list-style-type: none"><li>• Reflects the carbon performance regardless of the company's growth</li><li>• May ease companies benchmarking</li><li>• More suitable to sectorial decarbonisation strategies</li></ul>
Cons	<ul style="list-style-type: none"><li>• Does not allow comparing companies' in terms of emission reduction efficiency</li><li>• A decrease in GHG emissions may be linked to a production or sale decrease instead of effective efforts</li><li>• Targets may be difficult to reach if the company's growth is significant</li></ul>	<ul style="list-style-type: none"><li>• May be less credible since absolute emissions can still increase</li><li>• Companies covering a wide range of activities may find difficult to apply a unique indicator.</li><li>• Monetary indicators may not be correlated to the products' GHG emissions.</li></ul>

The Sectorial Decarbonization Approach is the method developed by the SBTi partners that focuses on a limited number of sectors. To be used only for these sectors: Pulp & Paper, Aluminium, Cement, Iron & Steel, Service buildings, Power Generation (Electricity).

The Economic-Intensity Contraction is considered by the initiative as the least robust approach as it is based on growth projections being similar for all companies. The method is slowly being discontinued.

Finally, the Absolute Emission Contraction based on physical intensity is the easiest and straightforward method. If an SDA hasn't been developed for a specific sector, this method is recommended. However, this method does not account for previous efforts made by companies to reduce their footprints prior to committing SBTs. All companies need to reduce at the same rate regardless of their baseline.

# Modelling Scope 1 & 2 targets step-by-step



**Set the base year**

Verifiable data on Scope 1 and 2 must exist for the base year and it must be representative of a company's GHG profile. It is recommended to set the most recent base year possible, the latest year that can be used by companies is currently 2018.



**Define the boundaries**

Goals must cover min 95% of GHG emissions. For that, the company will first need to have a full inventory covering all its activities worldwide.




**General recommendations**

Intensity targets can only be used if the translation into absolute reduction targets is aligned with a well below 2 or 1.5°C scenario or if it aligns with the 7% year on year reduction in economic intensity.

It is always recommended to adopt the most ambitious targets.

If a company operates in different sectors, identify the one covering most of its activities. A unique target is usually set at the corporate level for external purposes. However, distinct internal targets may be set according to the different activities covered, to ease implementation and follow-up.

Companies with high growth rates should select the method cautiously, in order to determine the best approach for both company's goals and the environmental integrity.



**Model the reductions**

Companies must align at minimum with Well-Below 2°C scenarios and ideally 1.5°C. They can use all three approaches defined by the SBTi.



# Modelling Scope 3 targets step-by-step

While Scope 1&2 emissions are important, Scope 3 emissions often dominate the overall value chain emissions for companies. Scope 3 is a challenge and an opportunity at the same time. The first task for any company setting a science-based target is to understand where their emissions are coming from and what areas offer the best potential for reduction.

In order to be officially approved by the Initiative, companies whose Scope 3 emissions cover more than 40% of their Scope 1, 2 and 3 emissions must submit a Scope 3 target. Scope 3 targets should be ambitious and align with 2°C scenarios as well as meet all Scope 3 related SBTi criteria.

# Modelling Scope 3 targets step-by-step



## Set the base year

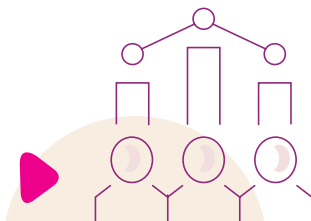
Verifiable data on scope 3 must exist for the base year and it must be representative of a company's GHG profile. It is recommended to set the most recent base year possible and use a single baseline for both Scope 1&2 and Scope 3 targets.



## General recommendations

If a company wants an ambitious Scope 3 target, methods used to define SBT Scope 1&2 can be used to define the Scope 3 target.

Scope 1, 2 and 3 targets may be adjusted over time in order to ensure consistent tracking of performance when significant changes in scope or boundaries occur.



## Define the boundaries

The objective is to define goals that cover 2/3 or 67% of GHG emissions. For that, the company will first need to have a full inventory covering all activities worldwide.



## Model the reductions

Companies must align with a 2°C scenarios. They can use all three approaches defined by the SBTi

Supplier/customers engagement: drive the adoption of SBT by suppliers or customers:

- **Boundary:** cover relevant and credible upstream or downstream categories and indicate explicitly the % of emissions covered by the engagement target, or if not available, the % of annual procurement spend covered.
- **Timeframe:** the company's engagement targets must be fulfilled within a maximum of 5 years from the date of target's submission.
- **Ambition:** the company's suppliers/customers shall have science-based emission reduction targets in line with SBTi resources.

## 3.2. Data access and supply chain engagement

Understanding the entire value chain and assessing indirect emissions is the basis of any credible and robust climate strategy.

However, there is no **one size fits all** strategy for all companies. Every strategy needs to be tailored and adapted to each company's needs and characteristics. Additionally, not all companies are facing the same difficulties or barriers in their journey towards decarbonisation. However, when assessing scope 3 emissions and setting emission reduction objectives, most businesses will find themselves facing a common issue: the difficulty to engage with suppliers and get robust emission data across the entire value chain.

Supply chain engagement is critical when assessing scope 3 emissions and setting SBTs. If it is important to first commit and act to reduce direct emissions, it is even more important to include suppliers in the process. For most companies, the majority of their emissions will take place along their value chain. Since a company's scope 3 emissions often overlap with other companies' emissions, scope 3 reduction strategies are a particularly fertile ground to identify synergies and potential common reduction strategies. Emission reduction efforts by one company can lead to substantial emission reductions in other companies' inventories. Excluding suppliers would impede businesses' ability to reach their ambitious climate objectives and greatly limit their emissions reduction potential.

Encouraging suppliers to follow emission reporting standards and set SBTs for example is a great way to align reduction objectives and collaborate effectively on reaching these objectives. Furthermore, if companies within the value chain are already measuring and

assessing their emissions robustly, it becomes easier to involve them in the data collection process. Moreover, the quality of the data provided by suppliers increases drastically if they are already reporting their own emissions.

However, before investing countless efforts by engaging with all suppliers within the value chain, it is important to assess the materiality of the entire value chain emissions. Indeed, locating hotspots will help target and focus engagement efforts with the right suppliers and stakeholders. This will prevent companies from investing a lot of resources to mitigate and reduce a small portion of their emissions. Nevertheless, less material emissions should still be accounted for and the suppliers accountable for these emissions should still be engaged and considered but to a lesser extent.

Finally, communication between companies is key. Fostering a good relationship with suppliers and explaining the rationale behind a climate strategy and shared objectives is critical. Collaborating with suppliers not only leads to an easier data collection process for scope 3 emissions, but also to an increased understanding of emissions hotspots as well as an increased emission reduction potential.



### 3.3. Time, resources and leadership buy-in

Dialogue with customers and suppliers in your value chain is critical for the successful implementation of a good emission reduction strategy.

However, internal engagement within the company is also essential. The data collection process for corporate footprints requires time and resources that are not always at the disposal of the reporting team. This highlights the importance of internal engagement and leadership buy-in to implement an effective climate strategy and emissions assessment. Getting internal buy-in is of the utmost importance: specific attention should be paid to identify internal barriers and opportunities in order to optimise the project's success. Staff responsible for assessing scope 3 emissions and setting SBTs should anticipate the issues that commonly create internal pushback and formulate ready-made responses.



- **Get the right people involved:** Setting a climate strategy and a reduction roadmap within the sustainability department only will most likely fail. To ensure your strategy is robust and inclusive, it is critical to engage all relevant internal stakeholders. Getting everyone involved will also foster employee motivation and engagement. Employees are key to achieving reduction targets, implementing new processes and provide accurate and relevant data.

- **Explain a factual why:** It is critical to explain the rationale behind a sound climate strategy to leadership teams and show that it makes the business more resilient and aligns with external stakeholders' expectations.
- **Be patient:** Assessing scope 3 emissions and setting a science-based target is a long-term process. Achieving the set goals will require deep systemic change, business model reinventions, and potential complete rethinking of some of the current mindsets, and such change will require time.
- **Start small:** When internal buy-in and engagement is lacking, there is no better way than having small success stories to show internally - starting with quick wins, showing both the environmental and financial/economic benefits to drive a willingness to change.
- **Communicate throughout the process:** Getting the right information and enabling implementation is directly linked to coherent, transparent and steady communication. Staff responsible for setting a science-based target should partner closely with all levels of the company during the target-setting process to socialise goals, assess feasibility and co-create practical implementation plans. Once targets have been set, communicating fully, simply and clearly is important to accurately inform stakeholders and build credibility.

## 4. Sectorial Guidance Sheets

The general recommendation provided on Scope 3 assessments and SBTs provide a strong basis to engage on the path towards including indirect emissions and scientifically robust reduction targets. However, as it has been mentioned, there is no **one size fits all** strategy for all companies. All companies are different. Companies from different sectors have different supply chains of various degrees of complexity, different material sources of emissions or even different Scope 1, 2 and 3 shares of emissions. This highlights the importance of increasing the granularity of the assessment to the sectorial level.

For this purpose, five sectorial guidance sheets have been developed. The five sectors developed are representative of the Low Carbon Pledge signatories and of the Irish business in general. They provide information, guidance and recommendations for companies assimilated to these five sectors. On top of a global sector overview, the guidance sheets provide sectorial best practices and recommendations related to Scope 3 assessments and SBTs.

Nevertheless, even if the information provided will guide companies to define and identify their material Scope 3 emissions on their path towards setting SBTs, the guidelines will not be a perfect fit for all companies from a given sector. Indeed, every climate strategy and emissions assessment should be tailored and adapted to each company's needs, characteristics and ambition.

### 5 sectorial guidance sheets



Agriculture, food and beverage sector



Financial sector



Energy and power generation sector



Retail sector



Professional services and SMEs

# Agriculture, Food and Beverage

Guidance sheet



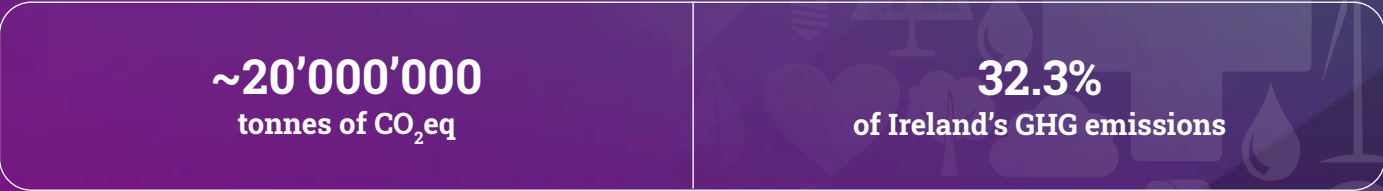
## Sector overview

### The agri-food and beverage sector

The agri-food and beverage sector is carbon intensive and has been one of the main area of focus for key emission reduction strategies and pathways. Worldwide, in 2018, 27.6% of global GHG emissions were attributed to our food system, according to The Quantis Food Report. It represented more than 14’785 million tonnes of CO<sub>2</sub>-eq released in our atmosphere. In Ireland, agriculture only is estimated to account for more than 34% of the country’s total emissions. Being one of the biggest exporters for the UK and Europe, the food and beverage sector in Ireland plays a key role in the fight to abate domestic and global emissions.

As national climate policies such as the Irish Climate Action Plan have been published and emissions reduction roadmaps for the agricultural sector have

been set (-15% by 2030), it is crucial for companies in this sector to understand and assess their carbon emissions, especially since more than 90% of their emissions comes from their suppliers. The **Agriculture and Food Development Authority** (Teagasc) has developed guidance and provides methods and support to companies to engage their suppliers and offer them concrete solutions to reduce their emissions and reach these national targets.







# Agriculture, Food and Beverage

Guidance sheet

Heineken Ireland / ABP Foodgroup Ireland / Britvic  
Dawn Meats / Diageo Ireland / Ornua

“The policy is there, though the practices have not yet been put in place at their fullest potential” - Dawn Meats

## Research outcomes

### Key results from the questionnaire

<b>100%</b> Addressing their scope 3 emissions	<b>Cat. 1, 3, 4, 9, 11</b> Main Scope 3 categories assessed
<b>Science-Based Targets:</b> Almost all companies surveyed have already set an SBT on their Scope 1, 2 and 3 emissions or are in the process of submitting their target <b>Biggest barriers:</b> complexity of supply chain and supplier engagement	

### Insights from Dawn Meats

In partnership with government organisations, a project with more than a hundred signpost farms has been started. New and more sustainable practices are implemented and tested across these farms. The aim is to measure the emission reduction potential of these more environmentally friendly practices in these farms. The final objective is to cascade these practices to all the farms in Ireland and encourage farmers to implement them on a long-term basis.

Without the engagement and participation from farmers, the targets will never be achieved. It is crucial to engage them through policy change at the national level but also through engagement and encouragement at the business level.



# Agriculture, Food and Beverage

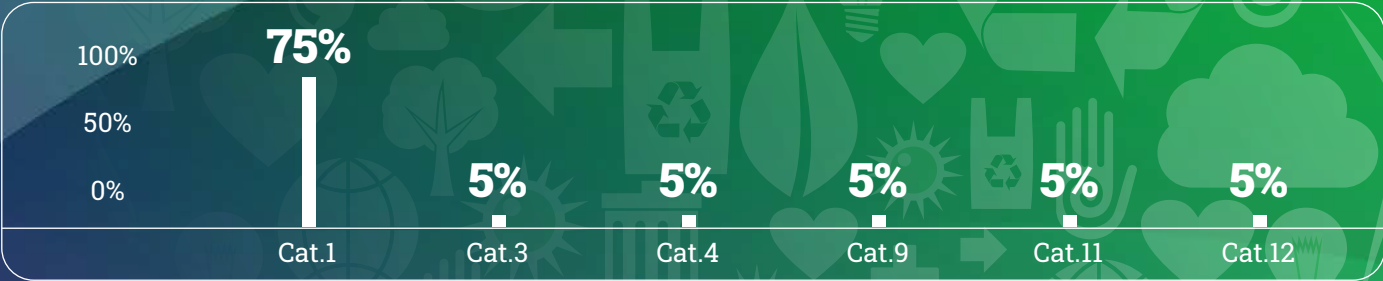
Guidance sheet

## Scope 3 reporting sectorial outlook

Scope 3 emissions heavily dominate in the food sector as it is not an energy intensive manufacturing sector and it relies mostly on raw materials and agricultural products which emit a lot through their life cycle.



Scope 1 **3%**  
Scope 2 **3%**  
Scope 3 **95%**



## Material scope 3 categories

- Cat 1. Purchased good and services (75%): Agriculture and cattle emissions (feed, methane, manure, fertilizers, ...) account for the majority of these emissions. Packaging is also a relevant driver of this category. This category is always the biggest driver in the food and beverage sector, whether or not land use change impacts (LUC) are included in the assessment.
- Cat 4. & 9. Transportation & Distribution is another material driver in the upstream and downstream value chain. While this is far behind category 1, these are category, especially downstream, that companies report and act on.
- Cat 11 & 12: Use & End of Life: these two categories' impacts relevance will significantly depend on your product and packaging, most companies include End of Life in their accounting and targets no matter their size due to consumer concerns.
- Other categories might still be material for some companies, it is important to start by a complete inventory estimate to ensure the company focuses on the ones that are material for them.





# Agriculture, Food and Beverage

Guidance sheet



## Scope 3

## Challenges and recommendations

- Food and Beverage companies have very complex supply chain with thousands of suppliers and farmers involved. Suppliers engagement is key to reaching impacts reduction objectives.
- Purchased goods and services is the main driver of carbon emissions and is also where some of the most difficult challenges lie. Here are few important ones to tackle first:
  - Raw materials origin: Commodities’ impacts depend heavily on the product’s sourcing. While its therefore important to have visibility about

this, it can prove difficult to track commodities down the entire value chain. We encourage working with your major suppliers to identify the major sourcing origins and better identify your hotspots.

- Land Use Change (e.g. Deforestation): can multiply by 5 times or more some of your commodities’ impacts. It is crucial to account for it in your footprint to identify to what extend this is driving your emissions. New guidance and tools have been developed and the GHG protocol is currently working on clarifying this approach.

[GHG Protocol Agricultural Guidance : Guidance](#)

[Quantis Food Report: Report](#)

[Quantis Natural Climate Solutions Report : Report](#)





# Agriculture, Food and Beverage

Guidance sheet

## Target example

British producer of soft drinks Britvic PLC commits to reduce absolute scope 1 and 2 GHG emissions by 50% by 2025 from a 2017 base year and absolute scope 3 GHG emissions by 35% by 2025 from a 2017 base year.

## Science-Based Targets Sectorial outlook

The food sector currently does not have a specific SBT pathway developed. Therefore food & beverage companies should use the Absolute Contraction approach, the most commonly used approach from the SBTi and very straightforward.

Due to the challenges around LUC accounting, the SBTi and the WWF are currently working on SBT for Forestry, Land & Agriculture to help companies in these sectors set targets linked to deforestation. The end goal is to be able to have specific targets around deforestation and for companies to be able to track progress. In the meantime, LUC should still be included in your footprint & targets.

At this time, 38 major global players in the food sector, including Danone, Farmer Bros. Co., General Mills Inc., Carlsberg Group, Nestlé have already set an approved target, and over 30 more have committed to set an SBT in the near future.

In Ireland and more specifically amongst Low Carbon Pledge Signatories, most companies have already submitted their SBTs to the initiative or are in the process of doing so.

## Challenges and recommendations

The biggest concern for companies in this sector is how to tackle value chain emissions. Indeed, Scope 3 emissions are especially hard to measure and capture for the following reasons:

- They are out of the company's control zone
- Complex supply chain with thousands of farmers
- Methodologies are still evolving (e.g. deforestation, soil health, insetting, ...)

However, there is a need to act. Even if the methods might not be perfect, they are good enough to help you identify what to work on and help you focus your efforts. The key is to the

best available method, to improve it when relevant, to stay consistent and transparent when you track progress and make these improvements.

Four step process to efficiently set up your reduction pathway:

- Map: What are the key commodities that drive your impact?
- Understand: Why are these commodities driving that impact? Deforestation? Agricultural practices? Cattle emissions? Land Use Change impacts?
- Set SBTs: Use the absolute contraction approach
- Act: Partner up! A lot of companies are in the same situation with complex supply chains. Partnering with a supplier leads to win-win reductions. Suppliers' emissions are your own emissions.

SBTi Manual : [How to set a Science-Based Target](#)

SBTi Tool : [Calculate your reduction pathway](#)

Quantis Case Study: [How Danone set its SBT](#)



# Financial services

Guidance sheet

## Sector overview

### The financial services sector

Catalysed by the Task Force on Climate-related Financial Disclosures (TCFD), investors are setting clear expectations for companies to understand and plan for the risks and opportunities brought forward by a changing climate and evolving markets.

The first portfolios built completely around SBTi companies are emerging. Climate Action 100+, bringing together over 370 global investors with more than \$35 trillion in assets under management, is engaging 160 focus companies deemed particularly important for decarbonization of the economic system, and accounting for over 80% of corporate GHG emissions, on improving climate governance, disclosure, and action. The number of companies approved by the SBTi is an important progress indicator used by the coalition.



The Net Zero Asset Owner Alliance brings together asset owners with more than \$2 trillion in assets that committed to transitioning their investment portfolios to net-zero GHG emissions by 2050 consistent with a maximum temperature rise of 1.5°C above pre-industrial temperatures and explicitly highlights collaboration with the SBTi as to enable implementation of this commitment.

The Italian power utility Enel issued a bond linked to the company meeting its SBTi approved target. Similarly, Finnish ICT company Nokia recently signed a \$1.5 billion revolving credit facility with the pricing mechanism linked to the company meeting its SBTi approved target.



# Financial Services

Guidance sheet

Allied Irish Banks / Bank of Ireland / Northern Trust Ireland / Sherry FitzGerald  
KBC Bank Ireland / Central Bank of Ireland / Ulster Bank / Permanent TSB

## Research outcomes

### Key results from the questionnaire

<b>86%</b> Addressing their scope 3 emissions	<b>Cat. 5 and 6</b> Main Scope 3 categories assessed
<p><b>Science-Based Targets:</b> Due to the previous lack of a defined sectorial pathway for the financial sector and the lack of guidance regarding investments emissions, SBTs have not been set by any of the companies in this sector. However, SBTi allows businesses in financial services to statement of intent.</p> <p><b>Biggest barriers:</b> Assessment of category 15 and of the scope 3 emissions related to financial investments. Guidance and methodologies are being developed.</p>	

## Insights from Allied Irish Bank

AIB has set internal targets in line with the SBTi for their scope 1 and scope 2 emissions. They have been on reporting on parts of their scope 3 emissions for a few years, notably on business travels, employee commuting, waste and purchases. Once a clear methodology on how to integrate emissions related to investments and financial portfolios have been developed and published, extending internal targets to include scope 3 is the next step forward. The lack of clear guidance for financial investments has been the main barrier to scope 3 assessment and SBTs. With the current development of guidance and methodologies by various initiative, this barrier is expected to be overcome in the near future.





# Financial Services

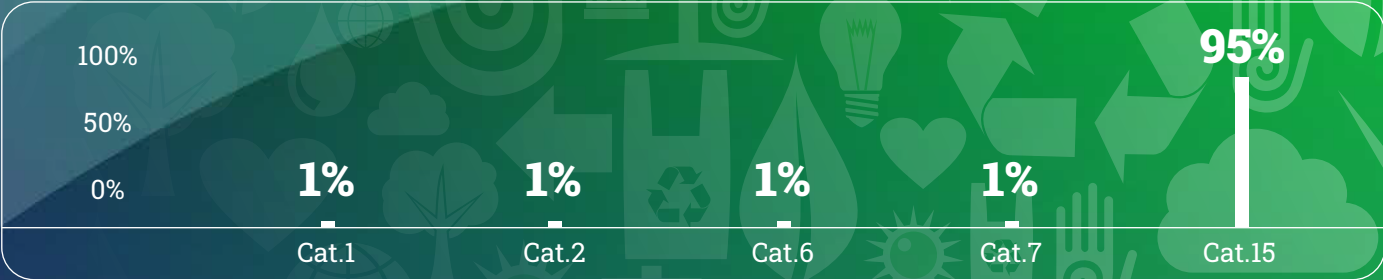
Guidance sheet

## Scope 3 reporting sectorial outlook

Scope 3 emissions for investors almost exclusively lie in the Category 15 «Investments». Service providers with no investments should relate to the professional services guidelines.



Scope 1 **1%**  
Scope 2 **2%**  
Scope 3 **97%**



## Material scope 3 categories

- Cat 15. Investments (>95%): Although financial institutions do generate emissions in other categories through electricity consumption (Scope 2) or business travel (Scope 3 category 6), the principle of allocating investments' GHG emissions to investors on an ownership basis makes it by far the biggest source of GHGs.
- Financial institutions are facing an increasing pressure to disclose their investments' GHG footprint. It has been turned into a compulsory reporting in several geographies (Such as "Article 173" of the Energy Transition Law in France), and is part of the TCFD recommendations. Emissions from listed companies are well documented for that purpose and can be applied to corporate equities or bonds.
- It is a best practice to include the "scope 3 of scope 3" (i.e. the scope 3 of assets within this category). Since financial institutions can potentially finance every sector of the economy, it can be the case that many assets do have significant GHG emissions along their value chain. As a vector fuelling other sectors' activities, the measurement of GHG footprint for financial institutions therefore concentrates the complexities witnessed in every other sector.



# Financial Services

Guidance sheet

## Scope 3 Challenges and recommendations

- Investments' footprint measurement is dependent on companies/assets' transparency and disclosure quality. It can be a major challenge to have a homogeneous application at portfolio level, especially when the underlying assets are subject to different levels of regulatory disclosure.
- Listed companies GHG data are usually available from data providers (either collected in annual reporting or estimated) and can be applied to corporate equities and bonds. All other investment types (Private equity, Infrastructure) can require "manual" data collection.
- Non-corporate investments such as sovereign bonds, or products not directly related to physical assets (such as currency swaps) are a challenge to be

covered. Aggregating different asset types in one portfolio also makes it complex.

- For investments with no ready-to-use GHG data, start collecting data available on investment activities (e.g. Production in MWh per energy source for utilities, annual traffic for a road infrastructure etc.). It will allow a GHG emission estimate and provide a first order of magnitude of investments' footprint along their value chain, which can vary greatly depending on the activity financed and the percentage of ownership/lending.

[UNPRI on portfolio carbon footprint](#)

[TCFD Recommendations on portfolio carbon footprint](#)





# Financial Services

Guidance sheet

## Science-Based Targets Sectorial outlook

The application of the SBT approach for financial institutions is currently under development: it is not a sectoral pathway in itself, but rather an application of SDA trajectories/other approaches where applicable to portfolios.

There are different ways for this application: the SDA trajectories can be applied to the portfolio companies with relevant activities. This is for instance the purpose of the PACTA tool developed by the 2 Degrees Investing Initiative. Other SBT approaches such as the Absolute Emissions Contraction approach can be applied to companies beyond those sectors. The third approach consists in setting a percentage of the portfolio to invest in companies with validated SBTs/ongoing commitment to do so.

A leading example of SBT application to financial activities is ING which discloses the [SBT alignment of its lending portfolio](#), in alignment with the relevant sectoral trajectories. Broader commitments are expected once the SBT specific guidelines are published.

### Target example

The multinational banking and financial services group ING and the insurance and financial services group AXA committed to SBT in June 2015. Of note, these commitments do not cover investments yet as the specific methodology is to be published.

## Recommendations and challenges

Biggest concerns: how to accurately measure portfolios alignment?

- Different levels of disclosure and maturity across investments, engagement not always possible
- SDA only available for certain sectors, not necessarily covering the majority of portfolios' emissions. Dependent on other sectors' trajectories availability
- Difficulty to maintain a moving portfolio's SBT alignment over time

Four step process to efficiently set up your reduction pathway:

- Measure: Assess investments' footprint along their value chain to identify priorities.
- Engage: Depending on investment type, engage with

companies (e.g. for Private Equity) or gather available data (e.g. through CDP for listed equity) to understand the level of ambition and reduction potential.

- Set SBTs: Using the SDA approach if applicable at company level or other approaches if not. Define the level of ambition according to your investments' profile: physical KPI for the most impactful sectors (kgCO<sub>2</sub>e/m<sup>2</sup>/year for real estate, tCO<sub>2</sub>e/tonne for cement, etc.).
- Act: Partner up! If applicable, engage with portfolio companies to define their level of ambition and ensure your portfolio decarbonization over time, especially for long-term investments.

SBTi Finance page : [Financial sector SBT page](#)

SBTi Tool : [Calculate your reduction pathway](#)

PACTA tool: [Link to tool](#)

# Energy and power generation

Guidance sheet

## Sector overview

### The energy and power sector

The energy sector plays a key role in decarbonizing the global economy and meeting the goals of the Paris Agreement worldwide. Indeed, the combustion of fossil fuels represents the single largest source of carbon dioxide emissions worldwide. The oil & gas industry is also one of the largest contributors of methane emissions. In Ireland, the energy sector is an important contributor to the total GHG emissions of the country. Energy and electricity production as well as fuels used for transports, manufacturing, households and water heating accounts for more than 55% of total Irish GHG emissions.

However, the numbers have shown a sharp decrease in recent years following a reduction in coal and peat used for energy production and a development

in renewable energy capacity. For example, the carbon intensity of power generation in 2018 in Ireland was 377 g CO<sub>2</sub>/kWh. In the previous year, the carbon intensity of the electricity mix was above 430 g CO<sub>2</sub>/kWh. This decrease reflects the improvement in efficiency of modern gas fired power plants replacing older peat and oil-fired plants and the increased share of renewables (primarily wind power) along with increased interconnectivity. Renewables energies accounted for 32.6% of the electricity generated in 2018 in Ireland.

**~33'500'000**  
tonnes of CO<sub>2</sub>eq

**55.6%**  
of Ireland's GHG emissions



Heat Merchants / Veolia / Eirgrid Group / Electricity Supply Board  
Gas Networks Ireland / SSE Energy Services / College Proteins



# Energy and Power Generation

Guidance sheet

“It is critical to engage and encourage your suppliers to follow your reduction pathways first and only then measure your Scope 3 emissions. Getting the metric for the sake of the metric is not necessarily helpful, if meaningful reductions cannot be achieved.” - SSE

## Research outcomes

### Key results from the questionnaire

<b>72%</b> Addressing their scope 3 emissions	<b>Cat. 3, 5, 6, 11</b> Main Scope 3 categories assessed
<p><b>Science-Based Targets:</b> 4 companies surveyed have already set an SBT on their Scope 1, 2 and 3 emissions or are in the process of submitting their target.</p> <p><b>Biggest barriers:</b> Fugitive emissions such as SF6 leakage for electricity production or gas leakage along pipe networks might be tricky to assess and measure correctly. Also, just as for most sectors, getting accurate data from suppliers and contractors is one of the biggest challenges.</p>	

### Insights from Gas Networks Ireland

Getting accurate data is probably one of the biggest barriers to scope 3 emissions assessment. Engaging suppliers to get the expected quality of data is critical. Therefore, it is GNI’s priority to set and implement suppliers’ engagement targets first before setting absolute/intensity-based targets on their scope 3 emissions. They believe is the responsibility of bigger companies to bring about change within their value chain and engage their suppliers to reduce their footprint. Indeed, bigger companies have the necessary levers to encourage others to follow the same reduction pathways. GNI are aiming to set criteria for future contractors to be aligned with the company’s commitments and emissions reduction targets.



# Energy and Power Generation

Guidance sheet

## Scope 3 reporting sectorial outlook

Indirect and value chain emissions in the energy sector vary highly depending on the activities of the company.



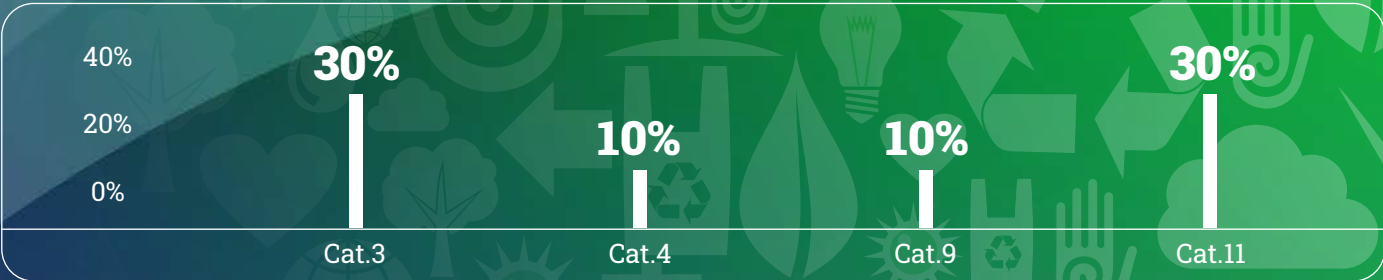
Ex. Electricity generation

Scope 1	85%
Scope 2	5%
Scope 3	10%



Ex. Distribution of natural gas

Scope 1	25%
Scope 2	5%
Scope 3	70%



## Material scope 3 categories

Material scope 3 categories are highly dependent on the company’s activities (refining, electricity production, distribution, ...).

- Cat 1 and 3. Purchases and Fuel and energy related activities: when extraction and production are not directly handled by the reporting company, well-to-tank emissions are integrated into scope 3.
- Cat 4 and 9. Upstream and downstream transportation and distribution: if the distribution is not handled directly by the company, leakage along pipe networks have to be accounted for in scope 3.
- Cat 11. Use of sold products: notably for gas and oil supplier, end-user emissions will make the most of the company’s Scope 3 emissions as fuels are burned by the customers.
- Other categories might still be material for some companies, it is important to start by a complete inventory estimate to ensure such potential emissions hotspots are not overlooked.





# Energy and Power Generation

Guidance sheet



## Scope 3 Challenges and recommendations

- As for most sectors, supplier’s engagement is a critical issue. The development of suppliers’ engagement targets is a key step towards better synergies and collaboration.
- Another challenge faced by businesses in this sector is the assessment of leakage along the transportation and distribution chain. Indeed, the mapping and calculation of fugitive emissions can be complicated. For example, in the electricity generation and distribution context, SF6 emissions are very difficult to assess and measure. The development of models to locate and measure this leakage is crucial and must be valorised.
- Finally, it is critical to account for the well-to-tank (or cradle-to-gate) emissions related to the extraction, production, and transportation of fuels and energy purchased or acquired by the reporting company up to the point of but excluding combustion. Upstream emissions might represent a significant portion of indirect emissions, especially for oil and gas providers.

API – IPIECA: [Estimating petroleum industry value chain emissions](#)

API – IPIECA: [Oil and Gas industry guidance on reporting](#)

GHG Protocol: [Calculating scope 3 emissions](#)





# Energy and Power Generation

Guidance sheet

## Science-Based Targets Sectorial outlook

There are two distinct pathways developed by the SBTi for the power and energy sector.

**Oil & Gas:** A working group lead by the CDP is currently working on developing the sectorial pathway and guidance for the Oil & Gas sector. The full methodology is expected to be released in Q4 2020. The purpose of this project is to incentivise Oil & Gas companies to undergo significant transformation (notably through setting SBTs) to meet the requirements and objectives of the Paris Agreement.

**Power and electric utilities:** The power sector plays a key role in decarbonising the economy and meet the objectives of the Paris Agreement. Due to an increase in purchased electricity, improvements in electricity generation will have cascading effects on many businesses and key actors. In early 2020, the SBTi has added a 1.5°C-aligned pathway for the power sector to the existing SDA method, providing power companies with the option of submitting 1.5°C-aligned targets for assessment by the SBTi.

### Target example

SSE plc commits to reduce scope 1 GHG emissions 60% per g CO<sub>2</sub>e/kWh by 2030 from a 2018 base year and commits to reduce absolute scope 1 and 2 GHG emissions 40% by 2030 from a 2018 base year. SSE plc commits that 50% of its suppliers by spend will have a science-based targets by 2024 and commits to reduce absolute GHG emissions from use of products sold 50% by 2034.

## Recommendations and challenges

SDA approach is currently only available for the power generation sector. A specific pathway is being developed for the Oil & Gas sector. In the meantime, the absolute emission contraction approach based on physical intensity is recommended.

The Oil & Gas sector is highly exposed to opportunities and risks linked with the decarbonization of the economy, and thus needs to undergo significant transformation. The sectorial development project lead by SBTi is aiming to develop a methodology for businesses in this sector to understand and measure their emission reduction targets and the level of transformation required to achieve global climate goals. This methodology will address scope 1 emissions in priority.

The WBCSD has developed a [guide](#) to support electric utility

companies to overcome the challenges they face and set their own SBTs. Indeed, the share of electricity in final energy consumption is expected to grow rapidly in the near future and the emissions reduction potential of the sector is significant. Setting ambitious SBTs to establish steep reductions is critical. Here is the four-step process to set SBTs for the power sector:

- **Calculate:** Calculate base year and most recent year emissions inventories and activity (e.g., electricity generated) following guidance provided by the GHG Protocol.
- **Determine targets:** Review the SBTi criteria and use the Power Generation SDA Applicability Matrix ([available here](#)) to determine how to set SDA targets across relevant activities.
- **Construct targets.** Model the SDA targets with the SBTi Tool.
- **Submit targets to SBTi:** Send a completed Target Submission Form

SBTi Tool : [Calculate your reduction pathway](#)    SDA link for power: [Power sector guidance](#)  
Oil & Gas sectorial development: [Oil & Gas on the SBTi website](#)





# Retail

Guidance sheet



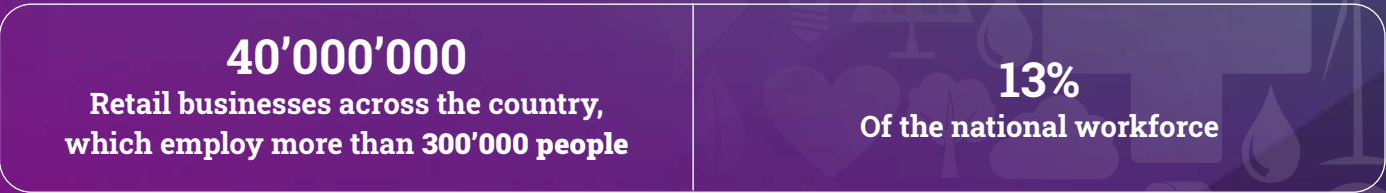
## Sector overview

### The retail sector

The retail sector is Ireland’s largest industry and one of the main employment sources in the country with more than 300’000 jobs. As such, it plays a crucial role in paving the way forward and aim for a global decarbonisation of the Irish economy.

The retail sector is indirectly responsible for an important proportion of national GHG emissions, especially linked with the upstream supply chain of retail companies. Indeed, for food and beverage retailers or for businesses dealing with apparel and footwear, the majority of their impact will come from their products and their manufacturing. It is vital for companies within this sector to fully understand their supply chain impacts in order to implement a robust emission reduction strategy.

By setting reduction targets that go beyond their direct operations, leading companies in the retail sector will set an example, engaging and collaborate with suppliers all along their value chains.





# Retail

Guidance sheet

Aldi / Lidl Ireland / Musgrave / Tesco  
Marks and Spencer / Sodexo Ireland

“We have a really complicated supply chain, it is hard to measure and capture all indirect emissions. The priority is to encourage our suppliers to follow our lead and assess and reduce their direct emissions” - Musgrave

## Research outcomes

### Key results from the questionnaire

<b>50%</b> Addressing their scope 3 emissions	<b>Cat. 1, 4, 9, 11, 12</b> Main Scope 3 categories assessed
<b>Science-Based Targets:</b> 3 companies surveyed have already set an SBT on their Scope 1, 2 and 3 emissions and others are committed to setting a SBTs in the short term. <b>Biggest barriers:</b> as for the agrifood and beverage sector, the biggest barrier to emissions assessment and reduction is the complexity of the supply chain and how to effectively engage suppliers to reduce their footprint.	

### Insights from Marks and Spencer

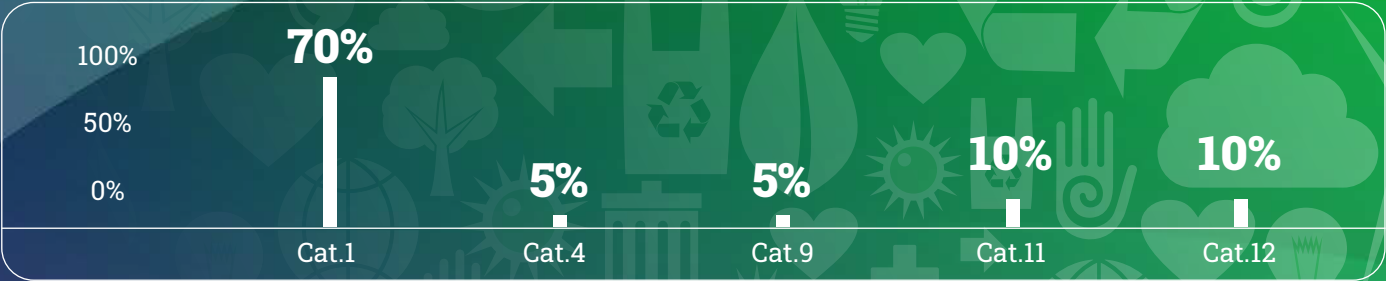
Estimates for M&S showed that scope 3 accounts for more than 95% of their total emissions with more than 260’000 tons of CO<sub>2</sub>e. However, due to the complexity of their supply chain, priority should be put on supplier engagement rather than trying to measure indirect emissions accurately. If setting a reduction target on indirect emissions is important, it is crucial to first locate where the main emissions occur across the supply chain and put the responsibilities down to suppliers to reduce their footprint. For M&S, the best strategy moving forward would be to aim for net-zero as a company and engage their suppliers to aim for net-zero as well. Indeed, they believe big companies have the necessary leverage to lead the way and foster change down their supply chain, with a more top-down approach.





# Retail

Guidance sheet



## Scope 3 reporting sectorial outlook

For most brands and retailers, scope 3 emissions are the most significant source of emissions but remain complicated to measure and manage. They usually represent the vast majority of a retailer’s emissions with about 95% of the total emissions.



Scope 1 **5%**  
Scope 2 **5%**  
Scope 3 **95%**

## Material scope 3 categories

- Cat 1. Purchased goods and services (>70%): All goods purchased by the company will fall under this category. This account for all sold products, except for own brand products. They account for the majority of a company’s emissions.
- Cat 4 and 9. Upstream/downstream transportation and distribution (5%): another material driver. While this is far behind category 1, these are category, especially downstream, that companies can act upon.
- Cat 11. Use of sold products (5-10%): especially in the clothing industry, use of sold products should not be overlooked (such as washing and drying).
- Cat 12. End-of-life treatment of sold products (5-10%): the relevance of this category will significantly depend the type of products and packaging, most companies include end-of-life in their accounting and targets no matter their size due to consumer concerns.



# Retail

Guidance sheet



## Scope 3 Challenges and recommendations

- Although an entire assessment and screening of the value chain emissions is necessary, a large focus can be set on the category 1 emissions related to purchased goods and services. Indeed, as discussed in the sectorial outlook, purchased goods and services represent the vast majority of a retailer’s indirect emissions and are thus critical to understand in order to implement robust reduction goals and strategies.
- Engaging suppliers and setting criteria for sold products is a key step towards reducing indirect emissions. Bigger retailers can have a leverage on suppliers to encourage them to implement more sustainable practices at their level.
- Consumer usage must not be overlooked, especially for companies in the clothing industry.

- One of the main approach to tackle scope 3 emissions is to achieve higher material efficiency and move towards materials and products with lower environmental impacts. Important to promote and favor more sustainable sourcing of products.

GHG Protocol: [Corporate Value Chain \(Scope 3\) Standard](#)  
Assess your hotspots: [Quantis Scope 3 Evaluator](#)

GHG Protocol: [Calculating scope 3 emissions](#)





# Retail

Guidance sheet

## Science-Based Targets Sectorial outlook

There has been an increased interest in the recent years from retails to set science-based targets. The majority of companies is aware that their most significant emissions happen across their value chain. With value chain emissions way higher than the 40% threshold, retail companies must develop scope 3 targets in line with science in order to fulfil the SBTi criteria. There is no sectorial pathway for the general retail sector developed yet by the SBTi. Companies are recommended to use one of the two main contraction of absolute emissions approaches (intensity or absolute). Also, due to the importance of their value chain emissions, setting suppliers’ engagement targets is highly recommended to achieve their scope 3 reduction objective.

For retailers in the apparel and footwear sector, the SBTi has developed a guidance to help companies from this sector to set SBTs and start their journey towards tackling their GHG emissions. Companies in the apparel and footwear sector

have the choice of using the absolute contraction method, the physical intensity method or the economic intensity approach to set their scope 1 and 2 and their scope 3 targets.

## Recommendations and challenges

- The biggest concern for companies in this sector is how to tackle value chain emissions. Indeed, Scope 3 emissions are especially hard to measure and capture for the following reasons:
  - They are out of the company’s control zone
  - Complex supply chain with thousands of different suppliers
- Collaboration is key. Especially in the retail sector where businesses rely heavily on their suppliers to reduce their emissions and achieve their targets. It is crucial for

### Target example

British multinational grocery and general merchandise retailer Tesco commits to reduce scope 1 and 2 GHG emissions 60% by 2025, using a 2015 base-year. Tesco also commits to reduce its scope 3 GHG emissions 17% by 2030, using a 2015 base-year. The emissions categories covered by the scope 3 target are purchased goods and services (supply chain), fuel and energy related activities, upstream transportation and distribution, and waste generated in operations.

companies in this sector to develop suppliers’ engagement targets and put in place criteria to select suppliers for given products

- Supplier engagement: Commit to having a specific percentage of suppliers (as a percentage of spend or GHG emissions) with their own SBTs within five years from the date the company’s target is submitted to the SBTi for validation

SBTi Manual : [How to set a Science-Based Target](#)

SBTi Tool : [Calculate your reduction pathway](#)

Apparel and footwear : [Sectorial guidance](#)





# Professional services and SMEs

Guidance sheet

## Sector overview

### The professional services sector

The professional services sector might not directly be responsible for a significant proportion of global carbon emissions, however, due to their number and rapid development, they play a key role in the global effort to limit global warming to 1.5°C. By implementing sustainable procurement strategies, reducing their fuel demand or developing new company-wide mobility plan for business and employee travels, such companies can have a cascading positive impact on their value chains and thus participate in the global decarbonisation challenge.

<b>~90%</b> Of worldwide businesses are small- or medium- sized enterprises	<b>50%</b> They represent about 50% of worldwide employment
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### Small- and medium-sized companies

Small and medium businesses make up about 90% of total companies worldwide and account for more than 50% of the global employment according to the World Bank. Consequently, even if they're relative emissions might appear quite small in comparison with huge corporations and carbon-intensive businesses, SMEs have a crucial role to play in the global response to the climate change. There is a growing awareness amongst SMEs on the risks and opportunities linked to climate change and related interest to develop climate strategies and emissions reduction plans to participate in the global decarbonisation of our economy. More and more SMEs are turning towards SBTs to prove their commitment and play they're part by setting robust GHG emissions reduction targets in line with the latest climate science.



# Professional services and SMEs

Guidance sheet

KPMG / Matheson / PM Group / PWC / William Fry / A&L Goodbody  
Aviva / AXA / Deloitte / Ricoh Ireland / Arup / PwC

## Research outcomes

### Key results from the questionnaire

<b>70%</b> Addressing their scope 3 emissions	<b>Cat. 1, 3, 5, 6, 7</b> Main Scope 3 categories assessed
<p><b>Science-Based Targets:</b> 2 companies surveyed have already set an SBT on their Scope 1, 2 and 3 emissions and another is committed to setting an SBT in the short term.</p> <p><b>Biggest barriers:</b> The lack of internal resources dedicated to this task, especially for SMEs, is a key issue.</p>	

## Insights from companies

The recurring theme amongst respondent was the lack of internal resources dedicated to the company’s footprint assessment and reporting. Indeed, for SMEs, one of the biggest barriers to emissions assessment and reporting, is the lack of internal resources. Measuring and assessing value chain emissions might prove time and resource consuming and smaller companies might not have sustainability experts solely dedicated to this task. It is critical for these companies to get internal buy-in to establish the right internal structure and allow for a robust assessment of a company’s emissions.





# Professional services and SMEs

Guidance sheet

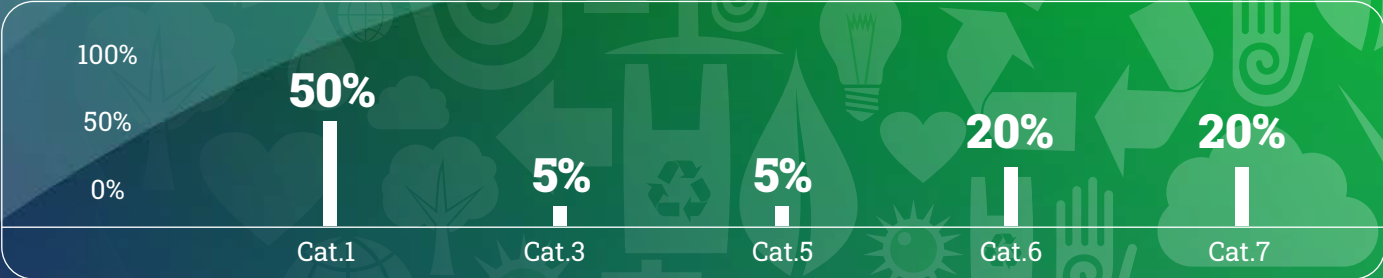
## Scope 3 reporting sectorial outlook

For companies providing professional services, most of the company’s impacts will fall under its scope 3.



Scope 1 **5%**  
Scope 2 **10%**  
Scope 3 **85%**

The split for SMEs might vary slightly depending on the activities of the company. However, due to a lack of internal resources to fully assess the entire value chain, the same categories than professional services are usually included.



## Material scope 3 categories

- Cat 1. Purchased goods and services (50%): All goods purchased by the company will fall under this category. The driving factors are most usually ICT equipment and data transfers as well as meals provided in the company’s canteens.
- Cat 6. Business travels (20%): Business travels are in most cases an important driving factor of a company’s scope 3 emissions. Business flights and car travels represent the majority of the impact.
- Cat 7. Employee commuting (20%): An important category that is often overlooked. Especially for professional services companies and SMEs, employee commuting is an important scope 3 hotspot and should be measured.
- Other categories might still be material for some companies, it is important to start by a complete inventory estimate to ensure such potential emissions hotspots are not overlooked





# Professional services and SMEs

Guidance sheet



## Scope 3 Challenges and recommendations

- To quickly calculate a comprehensive first screening of a company's scope 3 carbon footprint and locate the main sources of emissions, a scope 3 evaluator tool has been developed by Quantis in partnership with the WRI and the WBSCD, following the guidelines from the GHG Protocol. The tool can be found in the links below.
- Getting data related to employees commuting to work might be a barrier during the first reporting year. The development of a systematic employee mobility survey sent out on a yearly basis is a possible first step to understand and locate the impact hotspots related to commuting. These surveys also prove very helpful to steer and develop a company-wide mobility plan. Such

a plan, along with internal buy-in from employees, will allow businesses to reduce their emissions by switching to public transports and a softer mobility.

- Regarding SMEs, one of the biggest barriers to scope 3 reporting, and global emissions reporting in general, is the lack of internal resources. Indeed, measuring and assessing value chain emissions might prove time and resource consuming and smaller companies might not have sustainability experts solely dedicated to this task. It is critical to get internal buy-in to put the right structure in place to allow for a robust assessment of a company's emissions.

GHG Protocol: [Corporate Value Chain \(Scope 3\) Standard](#)

GHG Protocol: [Calculating scope 3 emissions](#)

Assess your hotspots: [Quantis Scope 3 Evaluator](#)





# Professional services and SMEs

Guidance sheet

## Science-Based Targets Sectorial outlook

The professional services sector currently does not have a specific SBT pathway developed. Therefore, companies should use the absolute emissions contraction approach, the most commonly used approach from the SBTi and very straightforward, to set their targets.

The SBTi has recently introduced a new route for SMEs to set emissions reduction targets following a 2 or 1.5°C reduction pathway. The new streamlined route is meant to facilitate a thorough and often resource-consuming process, to encourage smaller companies to also take action and reduce their emissions. The new target validation route is as follows:

- Small and medium-sized enterprises (SMEs) are defined as non-subsidiary, independent companies with fewer than 500 employees
- SMEs can skip the initial step of committing to set an SBT, and immediately set a target consistent with one of several predefined target options

- Signing and completing the Target-Setting Letter for SMEs entails:
  1. Achieving the scope 1 and 2 target in accordance to the GHG Protocol and within the specified timeframe
  2. Measuring and reducing scope 3 emissions following the GHG Protocol Standard (no specific target required on scope 3)
  3. Publicly reporting company-wide scope 1 and 2 GHG emissions and progress against targets on an annual basis.

## Recommendations and challenges

As for scope 3 accounting, the lack of internal resources is the main barrier for SMEs. Indeed, quantifying value chain emissions, collecting data and monitoring progress often exceeds the available resources of smaller companies.

### Target example

KPMG UK commits to reduce absolute scope 1 and 2 GHG emissions 100% by 2030 from a 2017 base year and scope 3 emissions 25% over the same timeframe.

The new route developed for SMEs has been developed to account for these difficulties. It imposes less intensive scope 3 assessments requirements to the reporting company. With the new approach, SMEs will not be required to set quantified targets, but instead locate and try to mitigate the main sources of emissions along their value chain. This allows SMEs to do their part in reaching global objectives without putting an insurmountable burden on the shoulders of smaller organisations.

SBTi Manual : [How to set a Science-Based Target](#)

SBTi Tool : [Calculate your reduction pathway](#)

Commitment letter for SMEs: [Target Setting Letter](#)

SBTi: [FAQ for SMEs](#)





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# Quantis

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