

Update to FDF Members Scope 3 Emissions Reporting

Based on GHG Protocol

Corporate Value Chain (Scope 3) Accounting and Reporting Standard

Presented by:
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The Presenter



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Graeme has over 15 years experience in the areas of carbon management and carbon reporting. He has worked with organisations across a range of sectors, ensuring compliance with mandatory carbon reporting schemes and developing carbon targets, and carbon management strategies.

What we'll cover today

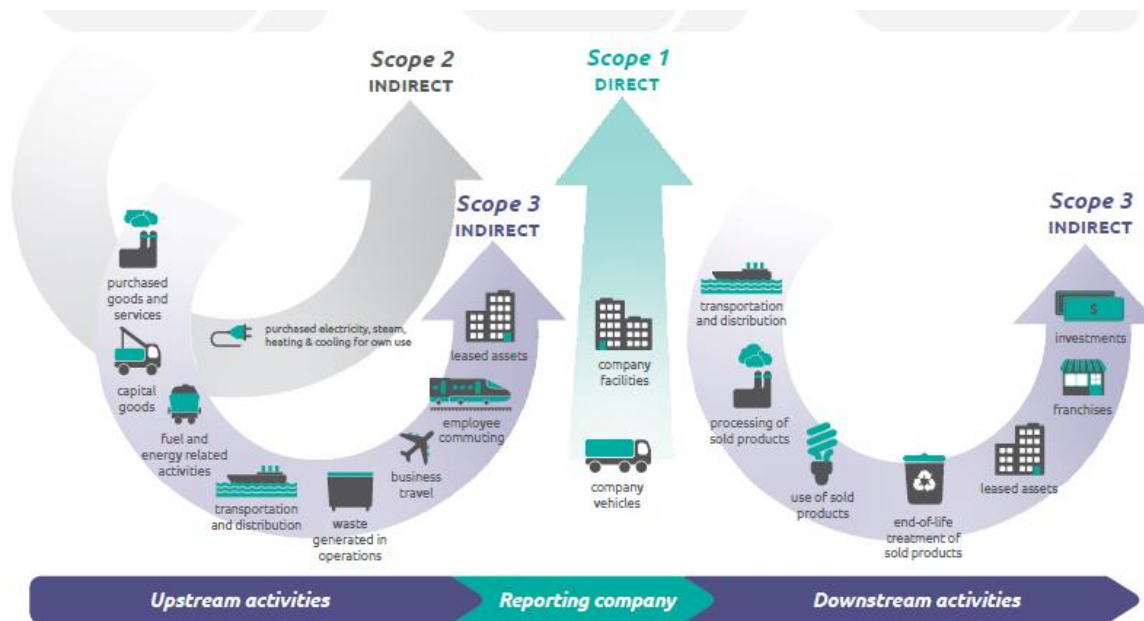


- What are Scope 3 emissions?
- How do I Identify my Scope 3?
- How do I calculate these?
- Questions

WHAT ARE SCOPE 3 EMISSIONS

What are the Scopes of Emissions?

- Under GHG Protocol Methodology – GHG emissions categorised by Scope
 - Scope 1 – Direct e.g. Natural gas, diesel, Refrigerant gases
 - Scope 2 – Indirect from purchased energy e.g. electricity, heat
 - Scope 3 – Indirect (all other) e.g. from waste, water, commuting etc.



'Upstream' Scope 3

1	Purchased Goods and Services	Extraction, production, and transportation of goods and services purchased
2	Capital Goods e.g. Plant, buildings, vehicles	Extraction, production, and transportation of capital goods purchased
3	Other fuel and energy related emissions	e.g. Extraction, production, and transportation of fuels and energy, T&D losses
4	Upstream transportation and distribution	Transportation and distribution of products and services purchased (non-owned vehicles)
5	Waste generated	Disposal and treatment of waste
6	Business travel	Transportation of employees for business-related activities (non-owned vehicles), can include hotel stays
7	Employee Commuting	Transportation of employees between homes and workplace
8	Upstream leased assets	Operation of assets leased by the reporting company (lessee)

'Downstream' Scope 3

9	Downstream transportation and distribution	Transportation and distribution of products sold (in non-owned vehicles)
10	Processing of sold products	Processing of intermediate products sold
11	Use of sold products	e.g. energy consumed by the product during expected life-time (Scopes 1 and 2 emissions)
12	End-of-life treatment of sold products	Emissions that occur during disposal or treatment of sold products
13	Downstream leased assets	Operation of assets owned by the reporting company (lessor)
14	Franchises	Operation of franchises (Scope 1 and 2)
15	Investments	Operation of investments (including equity and debt investments and project finance)

Category 1 – Purchased Goods and Services

‘This category includes all upstream (i.e., cradle-to-gate) emissions from the production of products purchased or acquired by the reporting company in the reporting year. Products include both goods (tangible products) and services (intangible products)’ E.g.

- Extraction of raw materials
- Agricultural activities
- Manufacturing, production, and processing
- Generation of electricity consumed by upstream activities
- Disposal/treatment of waste generated by upstream activities
- Land use and land-use change
- Transportation of materials and products between supplier

Primary Data:

- Product-level cradle-to-gate GHG data from suppliers from site-specific data
- Site-specific energy use or emissions data from suppliers

Category 2 – Capital Goods

‘This category includes all upstream (i.e., cradle-to-gate) emissions from the production of capital goods purchased or acquired by the reporting company...final products that have an extended life and are used by the company to manufacture a product, provide a service, or sell, store, and deliver merchandise’ E.g.

- Equipment
- Machinery
- Buildings
- Facilities
- Vehicles

Primary Data:

- Product-level cradle-to-gate GHG data from suppliers from site-specific data
- Site-specific energy use or emissions data from capital goods suppliers

Category 3 – Fuel and energy-related emissions

‘Emissions related to the production of fuels and energy purchased and consumed by the reporting company in the reporting year that are not included in Scope 1 or Scope 2.’ E.g.

- Extraction, production and transportation of fuels (inc. those used to generate electricity/heat/steam)
- Transmission and distribution of electricity/heat/steam

Primary Data:

- Company-specific data on upstream emissions (e.g. extraction of fuels)
- Grid-specific T&D loss rate
- Company-specific power purchase data and generator-specific emission rate for purchased power

Category 4 – Upstream transportation & distribution

‘Emissions (Scope 1 & 2) from the transportation and distribution of products (excluding fuel and energy products) purchased or acquired by the reporting company in the reporting year in vehicles and facilities not owned or operated by the reporting company,’ E.g.

- Transportation and distribution of products purchased
- Transportation and distribution of sold products by third parties if the company is the purchaser of the service
 - Air transport
 - Rail transport
 - Road transport
 - Marine transport
 - Storage of purchased products in warehouses, distribution centre’s

Primary Data:

- Activity-specific energy use or emissions data from third-party transportation and distribution suppliers
- Actual distance travelled
- Carrier-specific emission factors

Category 5 – Waste generated in operations

‘Emissions (Scope 1 & 2) from third-party disposal and treatment of waste that is generated in the reporting company’s owned or controlled operations’ E.g.

- Disposal in landfill
- Recycling
- Composting
- Waste-to-energy
- Wastewater treatment

Primary Data:

- Site-specific emissions data from waste management companies
- Company-specific metric tons of waste generated
- Company-specific emission factors

Category 6 – Business Travel

‘Emissions (Scope 1 & 2) from the transportation of employees for business-related activities in vehicles owned or operated by third parties, such as aircraft, trains, buses, and passenger cars’ E.g.

- Road travel in private/rental cars
- Train travel
- Flights
- Optional – Hotel Stays

Primary Data:

- Activity-specific data from transportation suppliers (e.g., airlines)
- Carrier-specific emission factors

Category 7 – Staff Commuting

‘Emissions (Scope 1 & 2) from the transportation of employees between their homes and their worksites’ E.g.

- Car travel
- Bus travel
- Rail travel
- Air travel
- Other modes of transportation

Primary Data:

- Specific distance travelled and mode of transport collected from employees

Category 8 – Upstream leased assets

'Emissions (Scope 1 & 2) from the operation of assets that are leased by the reporting company' E.g.

- Offices
- Warehouses
- Data Centre

Can be included under Scopes 1 & 2 if under Operational Control

Primary Data:

- Site-specific energy use data collected by utility bills or meters

Category 9 – Downstream transportation and distribution

‘Emissions (Scope 1 & 2) from transportation and distribution of products sold by the reporting company’ E.g.

- Distribution by road/rail/air/marine
- Storage of sold products in warehouses and distribution centres
- Retailers can include travel of customers to stores

Outbound transportation and distribution services that are purchased by the reporting company are excluded from category 9 and included in category 4 (Upstream transportation and distribution)

Primary Data:

- Activity-specific energy use or emissions data from third-party partners
- Activity-specific distance travelled
- Company-specific emission factors (e.g., per metric ton-km)

Category 10 – Processing of sold products

‘(Scope 1 & 2) Processing of sold intermediate products by third parties (e.g., manufacturers) subsequent to sale... Intermediate products are products that require further processing, transformation, or inclusion in another product before use’
E.g.

- Energy use from processing of product
-not emissions associated with product use

Primary Data:

- Activity-specific energy use or emissions data from third-party transportation and distribution partners
- Activity-specific distance travelled
- Company-specific emission factors (e.g., per metric ton-km)

Category 11 – Use of Sold Products

‘Emissions (Scope 1 & 2) from the use of goods and services sold by the reporting company...Scope 1 and 2 emissions of end users. End users include both consumers and business customers that use final products’ E.g.

- Direct Electricity/fuel consumed in product use
- GHGs e.g. refrigerants emitted during use
- **Optional** – product indirect energy use (e.g. cooking/storage of food)
- Facilities
- Vehicles

Primary Data:

- Specific data collected from consumers

Category 12 – End-of-life treatment of sold products

‘Emissions (Scope 1 & 2) from the waste disposal and treatment of products sold by the reporting company (in the reporting year) at the end of their life’ E.g.

- Scope 1 & 2 emissions of waste management companies
- Emissions from energy use, disposal methods: landfill, recycling etc.

Primary Data:

- Specific data collected from consumers on disposal rates
- Specific data collected from waste management providers on emissions rates or energy use

Category 13 – Downstream leased assets

‘emissions (Scope 1 & 2) from the operation of assets that are owned by the reporting company (acting as lessor) and leased to other entities’

Leased assets may be included in a company’s scope 1 or scope 2 inventory depending on the type of lease and the consolidation approach the company uses to define its organisational boundaries

Primary Data:

- Site-specific energy use data collected by utility bills or meters

Category 14 – Franchises

‘This category includes emissions (Scope 1 & 2) from the operation of franchises not included in scope 1 or scope 2. A franchise is a business operating under a license to sell or distribute another company’s goods or services within a certain location. This category is applicable to franchisors’

Primary Data:

- Site-specific energy use data collected by utility bills or meters

Category 15 – Investments

*‘Emissions (Scope 1 & 2) associated with the reporting company’s investments in the reporting year. This category is applicable to **investors** (i.e., companies that make an investment with the objective of making a profit) and companies that provide **financial services**’ E.g.*

- Equity investments
- Debt investments
- Project finance
- Managed investments and client services

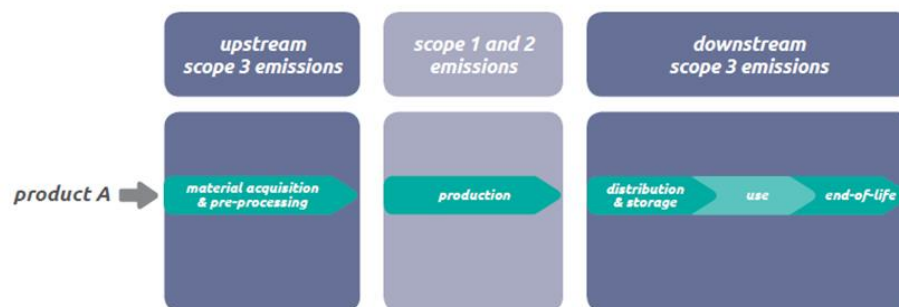
Primary Data:

- Site-specific energy use or emissions data

HOW DO I IDENTIFY MY SCOPE 3?

Set the Boundaries – Identify Emission Sources

1. Set the Organisational Boundary (equity share, control (financial¹ or operational²))
2. Set the Operational Boundary (e.g. UK/global, cradle-to-gate, cradle-to-grave)
3. Develop Value Chain Map - to include lists of:
 - All **Scope 3** emission categories
 - **Purchased** goods and services
 - **Sold** good and services
 - Suppliers and ‘value chain’
 - partners



¹...has the ability to direct the financial and operating policies...with a view to gaining economic benefits from its activities

²...has the full authority to introduce and implement its operating policies at the operation

Value Chain Mapping

Companies should map the value chain as a first step toward identifying the scope 3 activities that are included in the inventory...may exclude Scope 3 activities from the inventory, provided that any exclusion is disclosed and justified'

Undertake initial estimates of the size of the emissions by category.

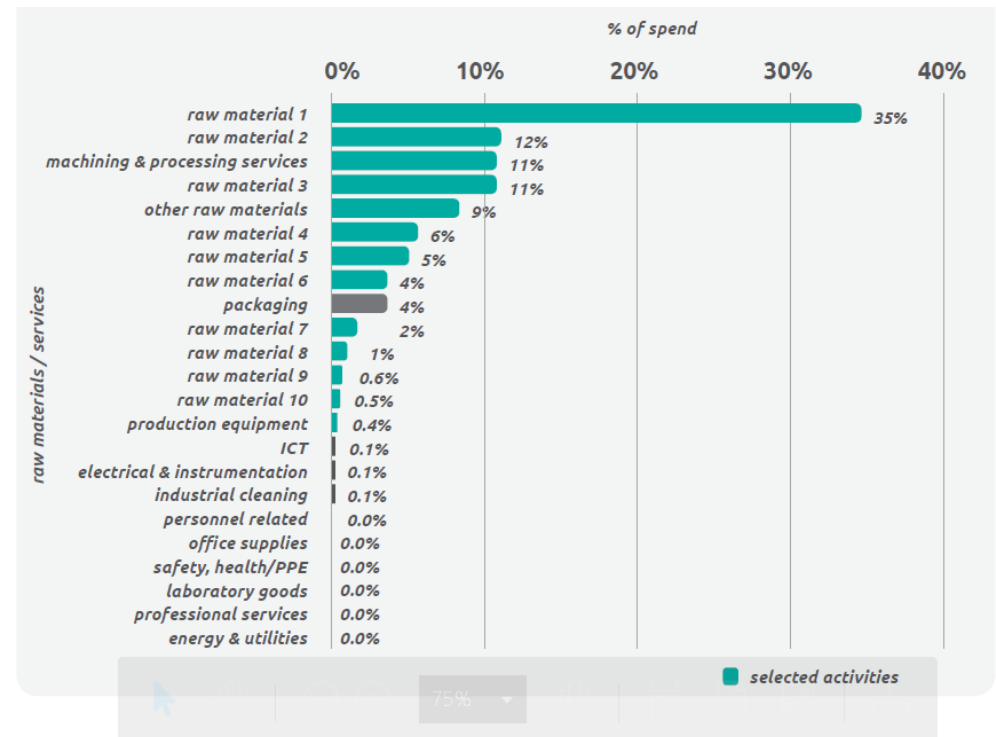
Potentially exclude:

- Categories that are **irrelevant**
- Emission sources estimated to be **insignificant**
- Emissions where the ability to collect data and influence GHG reductions is limited
- Lack of data means you are unable to estimate/calculate emissions

HOWEVER - *'Should not exclude any activity that is expected to contribute significantly to the company's total'*

Scope 3 – Purchased Goods and Services

- Develop List of purchased goods/services/suppliers
- Potentially develop key categories e.g. ingredients/dairy products/packaging etc.
- Collate data – cost/volume



Value Chain Mapping – Output

The Value Chain Exercise should identify:

- Irrelevant Scope 3 categories (e.g. franchises, investments)
- Insignificant categories
- Sources with no data availability
- Most significant Scope 3 sources
- Sources where relevant data is available
- Sources that may be significant but data capture requires improvement

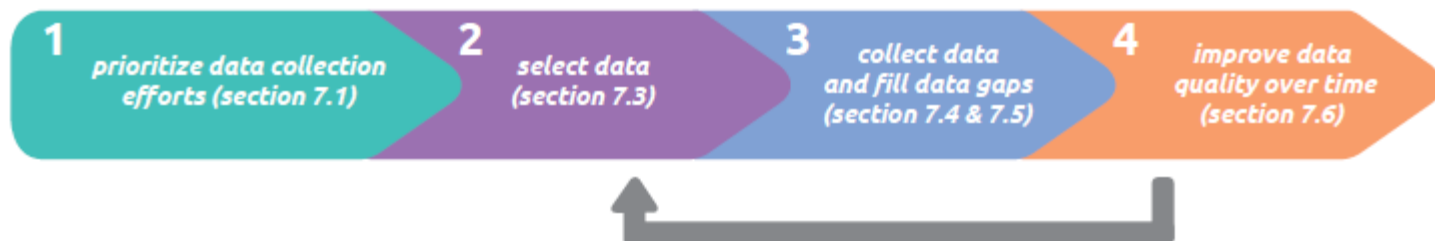
- High-level calculations/estimates of emissions for relevant categories

HOW DO I CALCULATE SCOPE 3 EMISSIONS?

Data Collection

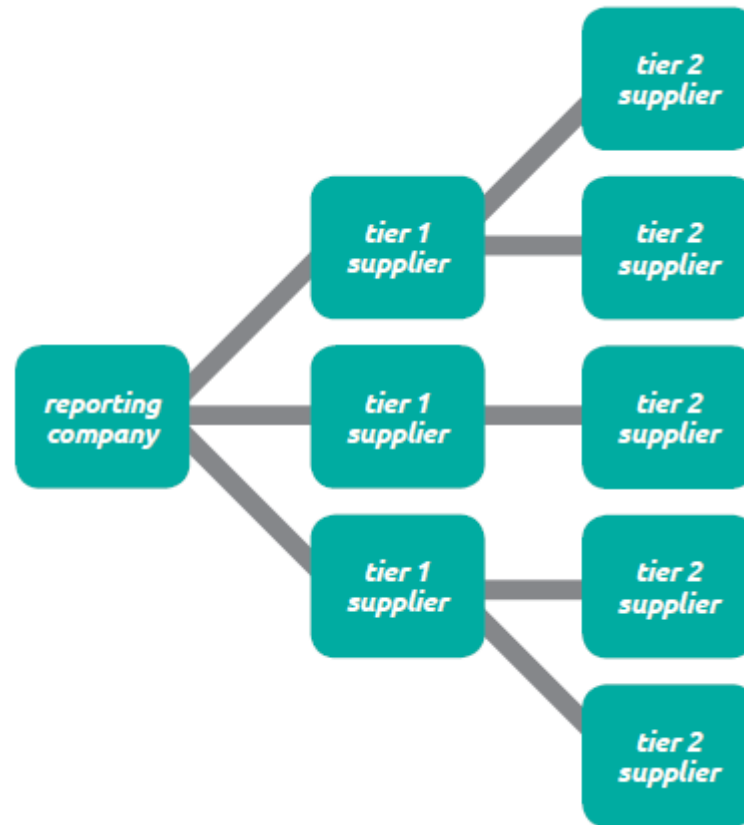
‘Companies should prioritise data collection efforts on...activities that are expected to have the most significant emissions, offer the most significant reduction opportunities, and are most relevant to business goals.’

- Prioritise data collection
- Identify data sources (Ideally primary data)
- Collate data
- Calculate Emissions



Supply Chain Data

- Tier 1 suppliers are companies with which the reporting company has a purchase order for goods or services – initial focus of data collection
- Tier 2 – Identify the most significant, potentially engage with Tier 1 supplier to obtain data



Calculation of Emissions

- May have primary emission data e.g. supplier provides a CO₂/tonne figure for product purchased
- May need to allocate emissions from a supplier e.g. total emissions at a supplier factory may be available – need to allocate by proportion of product purchased from supplier
- Calculation may be required from other data – e.g. converting miles travelled/quantities of good purchased into emissions

Examples of data sources by Category (1)

Category	Examples of primary data	Examples of secondary data
1. Purchased goods and services	<ul style="list-style-type: none"> Product-level cradle-to-gate GHG data from suppliers calculated using site-specific data Site-specific energy use or emissions data from suppliers 	<ul style="list-style-type: none"> Industry average emission factors per material consumed from life cycle inventory databases
2. Capital goods	<ul style="list-style-type: none"> Product-level cradle-to-gate GHG data from suppliers calculated using site-specific data Site-specific energy use or emissions data from capital goods suppliers 	<ul style="list-style-type: none"> Industry average emission factors per material consumed from life cycle inventory databases
3. Fuel- and energy-related activities (not included in scope 1 or scope 2)	<ul style="list-style-type: none"> Company-specific data on upstream emissions (e.g. extraction of fuels) Grid-specific T&D loss rate Company-specific power purchase data and generator-specific emission rate for purchased power 	<ul style="list-style-type: none"> National average data on upstream emissions (e.g. from life cycle inventory database) National average T&D loss rate National average power purchase data
4. Upstream transportation and distribution	<ul style="list-style-type: none"> Activity-specific energy use or emissions data from third-party transportation and distribution suppliers Actual distance traveled Carrier-specific emission factors 	<ul style="list-style-type: none"> Estimated distance traveled by mode based on industry-average data
5. Waste generated in operations	<ul style="list-style-type: none"> Site-specific emissions data from waste management companies Company-specific metric tons of waste generated Company-specific emission factors 	<ul style="list-style-type: none"> Estimated metric tons of waste generated based on industry-average data Industry average emission factors

Examples of data sources by Category (2)

6. Business travel	<ul style="list-style-type: none">• Activity-specific data from transportation suppliers (e.g., airlines)• Carrier-specific emission factors	<ul style="list-style-type: none">• Estimated distance traveled based on industry-average data
7. Employee commuting	<ul style="list-style-type: none">• Specific distance traveled and mode of transport collected from employees	<ul style="list-style-type: none">• Estimated distance traveled based on industry-average data
8. Upstream leased assets	<ul style="list-style-type: none">• Site-specific energy use data collected by utility bills or meters	<ul style="list-style-type: none">• Estimated emissions based on industry-average data (e.g. energy use per floor space by building type)
9. Transportation and distribution of sold products	<ul style="list-style-type: none">• Activity-specific energy use or emissions data from third-party transportation and distribution partners• Activity-specific distance traveled• Company-specific emission factors (e.g., per metric ton-km)	<ul style="list-style-type: none">• Estimated distance traveled based on industry-average data• National average emission factors
10. Processing of sold products	<ul style="list-style-type: none">• Site-specific energy use or emissions from downstream value chain partners	<ul style="list-style-type: none">• Estimated energy use based on industry-average data

Examples of data sources by Category (3)

11. Use of sold products	<ul style="list-style-type: none">• Specific data collected from consumers	<ul style="list-style-type: none">• Estimated energy used based on national average statistics on product use
12. End-of-life treatment of sold products	<ul style="list-style-type: none">• Specific data collected from consumers on disposal rates• Specific data collected from waste management providers on emissions rates or energy use	<ul style="list-style-type: none">• Estimated disposal rates based on national average statistics• Estimated emissions or energy use based on national average statistics
13. Downstream leased assets	<ul style="list-style-type: none">• Site-specific energy use data collected by utility bills or meters	<ul style="list-style-type: none">• Estimated emissions based on industry-average data (e.g., energy use per floor space by building type)
14. Franchises	<ul style="list-style-type: none">• Site-specific energy use data collected by utility bills or meters	<ul style="list-style-type: none">• Estimated emissions based on industry-average data (e.g., energy use per floor space by building type)
15. Investments	<ul style="list-style-type: none">• Site-specific energy use or emissions data	<ul style="list-style-type: none">• Estimated emissions based on industry-average data

Scope 3 Conversion Factors

Need to select conversion factors:

- **Defra/BEIS** provide factors for e.g. water use, waste disposal, material use; glass, paper, electrical items, plastics
<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2021>
- **GHG protocol Ithird part databases** – GHG provide a list of databases, some free some available for a fee <https://ghgprotocol.org/life-cycle-databases>
- **GHG Protocol/WRI Scope 3 evaluator tool** provides a high level estimate for; operation of facilities, purchases, logistics, travel, leased assets and investments) – uses primarily financial data, accepted by SBTi
<https://ghgprotocol.org/scope-3-evaluator>
- **Industry standards/Research Institutions** – Internet searches

Always state the source in your conversion factors in your GHG report

Reporting Scope 3 Emissions

Required Reporting

- Report emissions separately by Scope 3 category
- List of categories excluded, with justification
- Methodology used to calculate emissions
- Sources of data and emission factors
- Proportion of emissions based on data provided by suppliers/value chain partners (per category)

Voluntary e.g.

- Baseline year emission and comparison
- Emissions by product sold
- Performance indicators, relative emissions
- Uncertainty Estimate

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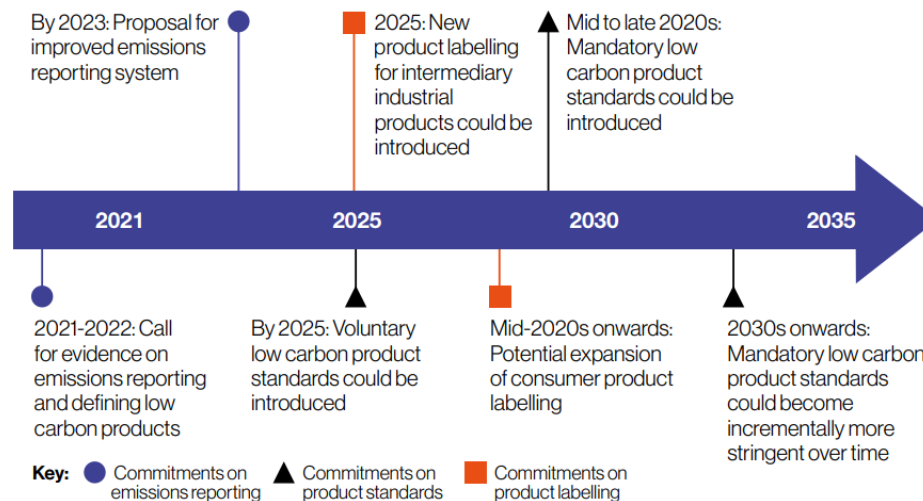
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Benefits to Scope 3 Reporting

- Greater understanding of Environmental Impact
- Identify carbon ‘hot-spots’
- Potentially identify emission reductions/cost reductions in the value chain
- Respond to client data requests
- ‘Future-proof’ against future reporting legislation (see below from Gov Decarbonisation Strategy 2021)
- Develop product life cycle analysis (LCA)/carbon footprint (see below)



ADDITIONAL INFORMATION

GHG Protocol Scope 3 Guidance

<https://ghgprotocol.org/scope-3-technical-calculation-guidance>

QUESTIONS



Thankyou

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global **environmental** and **advisory** solutions

