

SUPPLY CHAIN SUSTAINABILITY

**SCHOOL**



# Scope Busting in Carbon Footprinting & Reporting

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Action Sustainability



# House Rules



Mics off please



Get involved in our poll questions



'Use the chatbox for questions



Share your feedback at the end

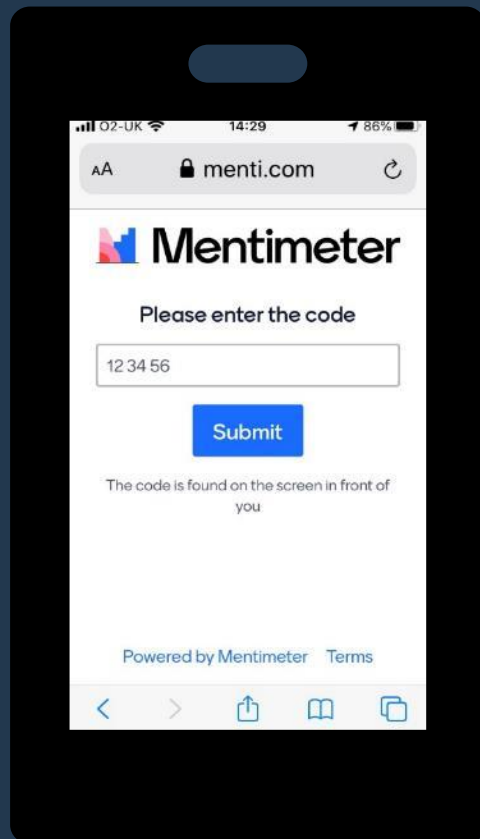


Slides will be shared later



We are recording so you and others can watch back later

# Mentimeter



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# Workshop Overview

- The concept of 'scopes' – sources of carbon and the GHG Protocol
- Setting Organisational Boundaries
- Setting Operational Scopes for carbon
- Why we need them for reporting
- Test!



# National Highways – Net Zero Plan



## CORPORATE EMISSIONS

Net zero by 2030

Net zero for our own operations by 2030



## MAINTENANCE & CONSTRUCTION EMISSIONS

Net zero by 2040

Net zero for maintenance & construction by 2040



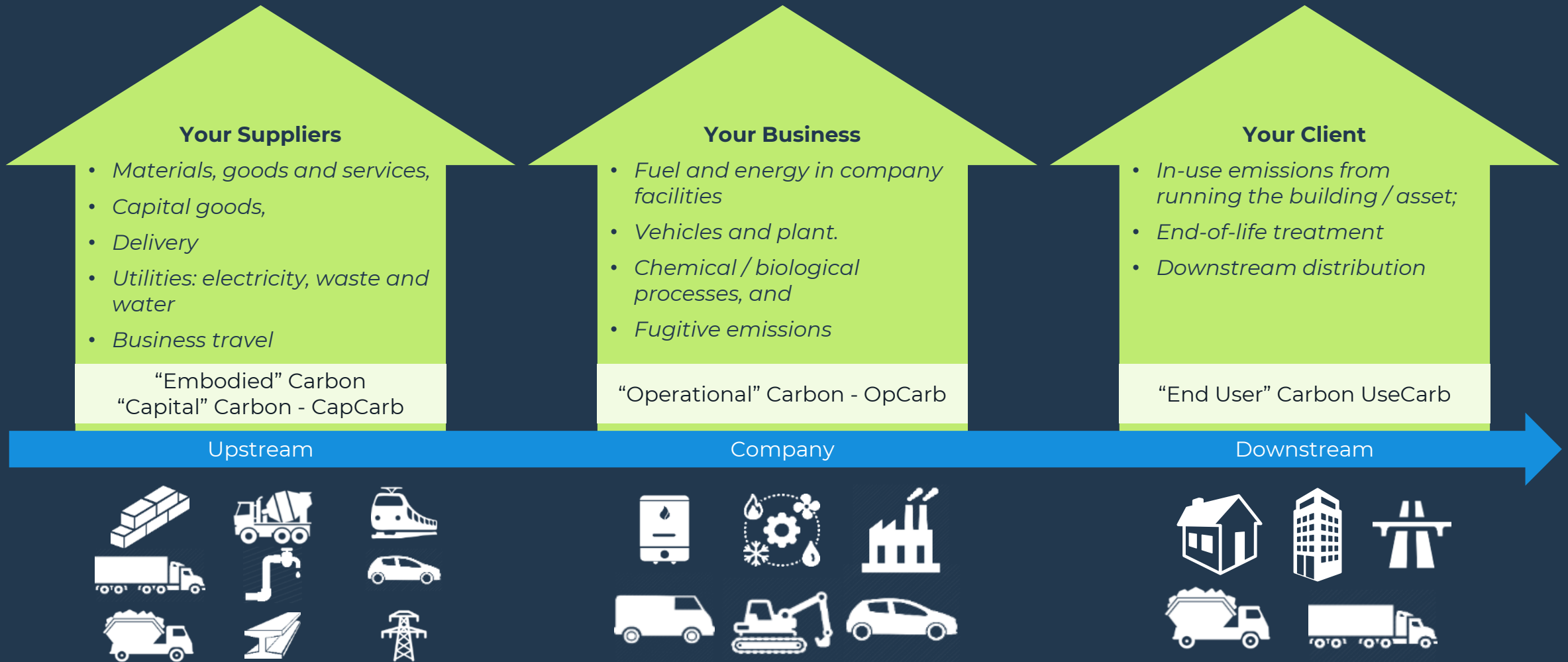
## ROAD USER EMISSIONS

Net zero by 2050

Net zero carbon travel on our roads by 2050

For more information check out: <https://nationalhighways.co.uk/netzerohighways/>

# Sources of Carbon Emissions from your Organisation



# The GHG Protocol

## GHG Protocol

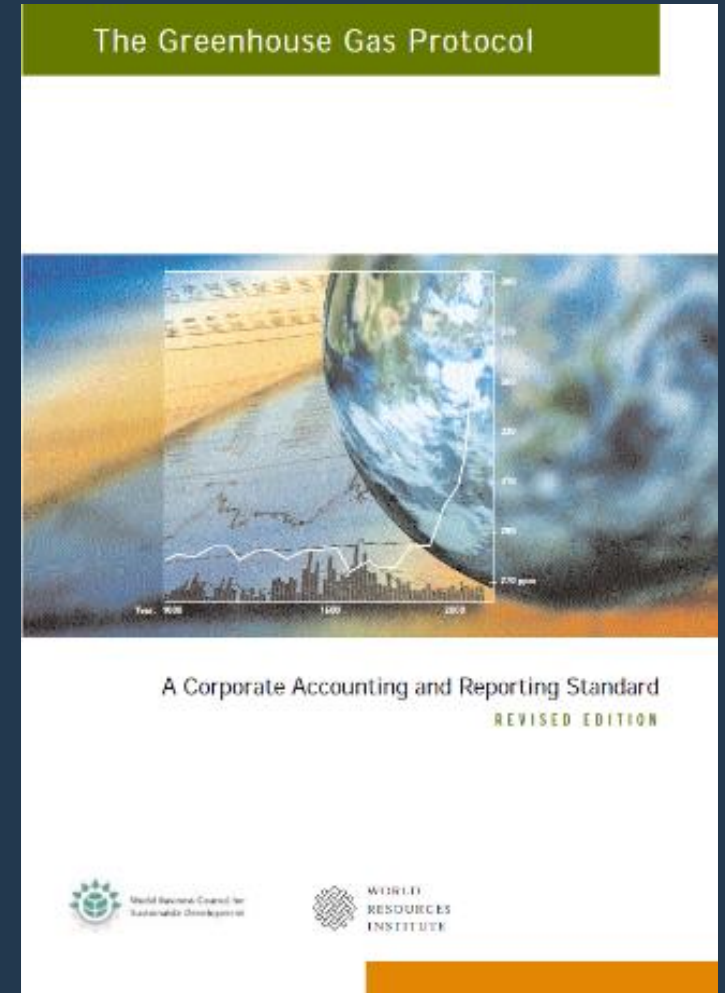
Accounting and Reporting of 6 greenhouse gases  
(Kyoto Protocol)

GHG inventory using standardised approaches and principles

Develop an effective strategy to manage and reduce GHG emissions

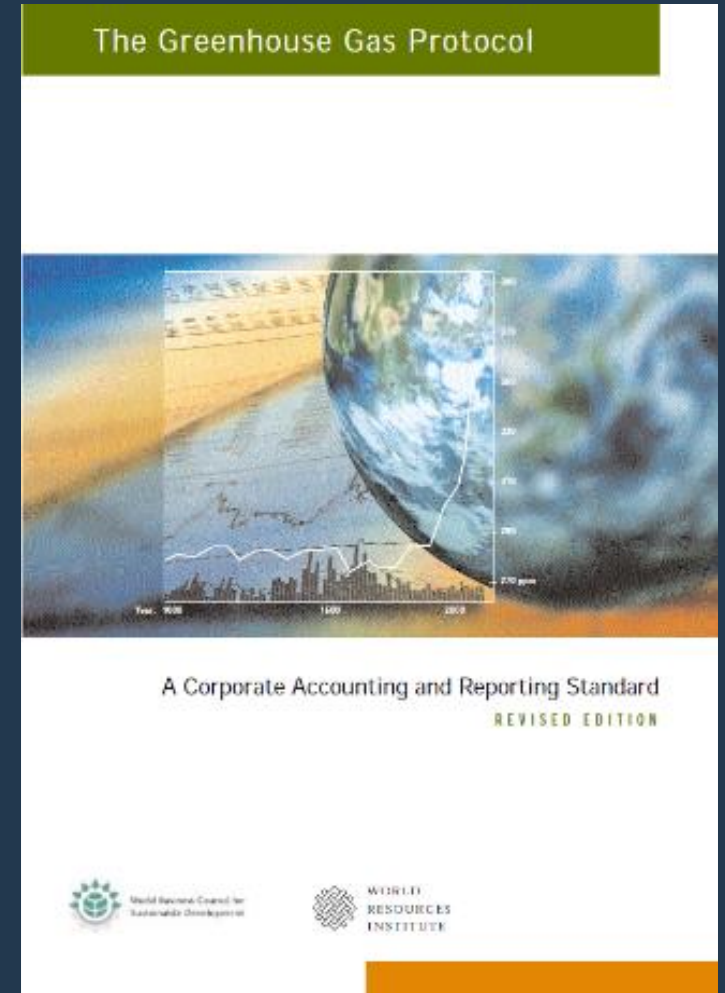
Consistency and transparency in GHG Accounting and Reporting

Construction-specific GHG Protocol - Encord



# Organizational Boundaries: Consolidation approaches

- Equity share approach
- Control approach
  - Financial control
  - Operational control





- **Equity share**

- Under the equity share approach, **a company accounts for GHG emissions from operations according to its share of equity in the operation.**
- The equity share reflects economic interest, which is the extent of rights a company has to the risks and rewards flowing from an operation.



- **Financial control**

- Under the financial control approach, **a company accounts for 100% of the GHG emissions over which it has financial control.**
- It does not account for GHG emissions from operations in which it owns an interest but does not have financial control.

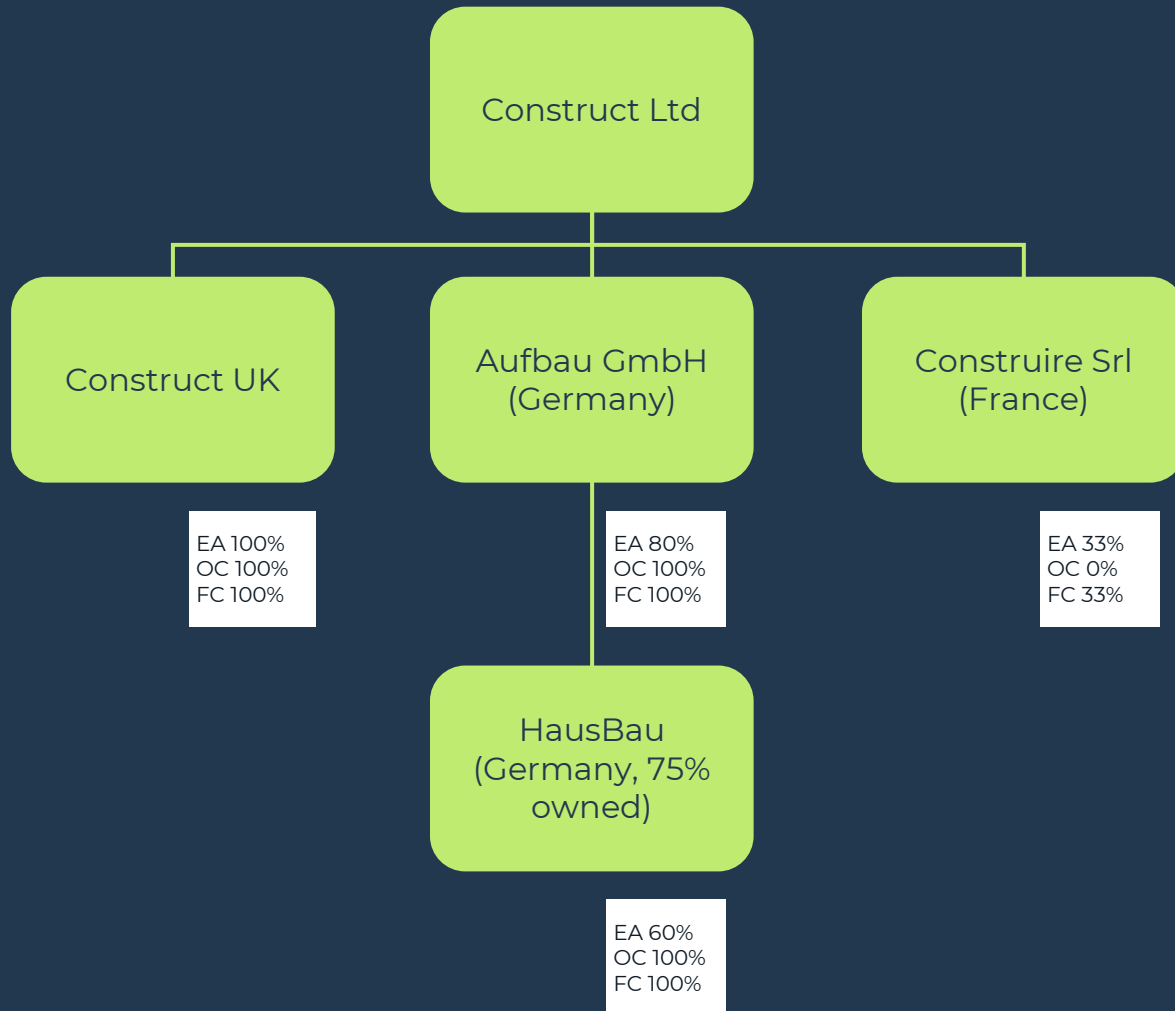


- **Operational control**

- Under the operational control approach, **a company accounts for 100% of the GHG emissions over which it has operational control.**
- It does not account for GHG emissions from operations in which it owns an interest but does not have operational control.



# Example



Biz Units	Structure	Equity	Control
Construct UK	Incorporated Company	100%	OC 100% FC 100%
Aufbau GmbH	Incorporated Company	80%	OC 100% FC 100%
HausBau	Subsidiary of Aufbau GmbH 75% owned	60%	OC 100% FC 100%
Construire Srl	Non-incorporated Joint Venture	33%	OC 0% FC 33%



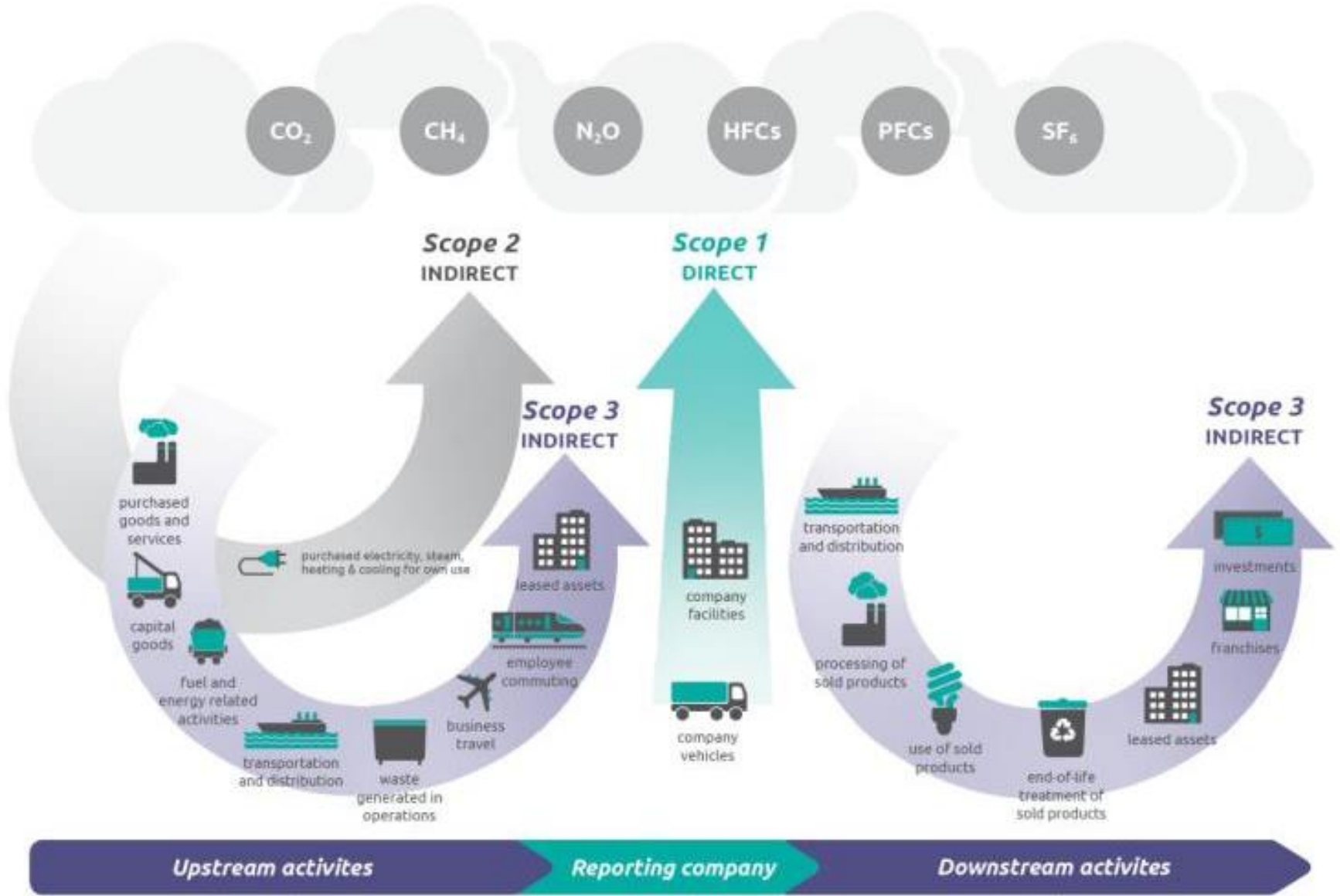
# **Operational Scopes for Carbon**

# Operational Boundaries – Scopes

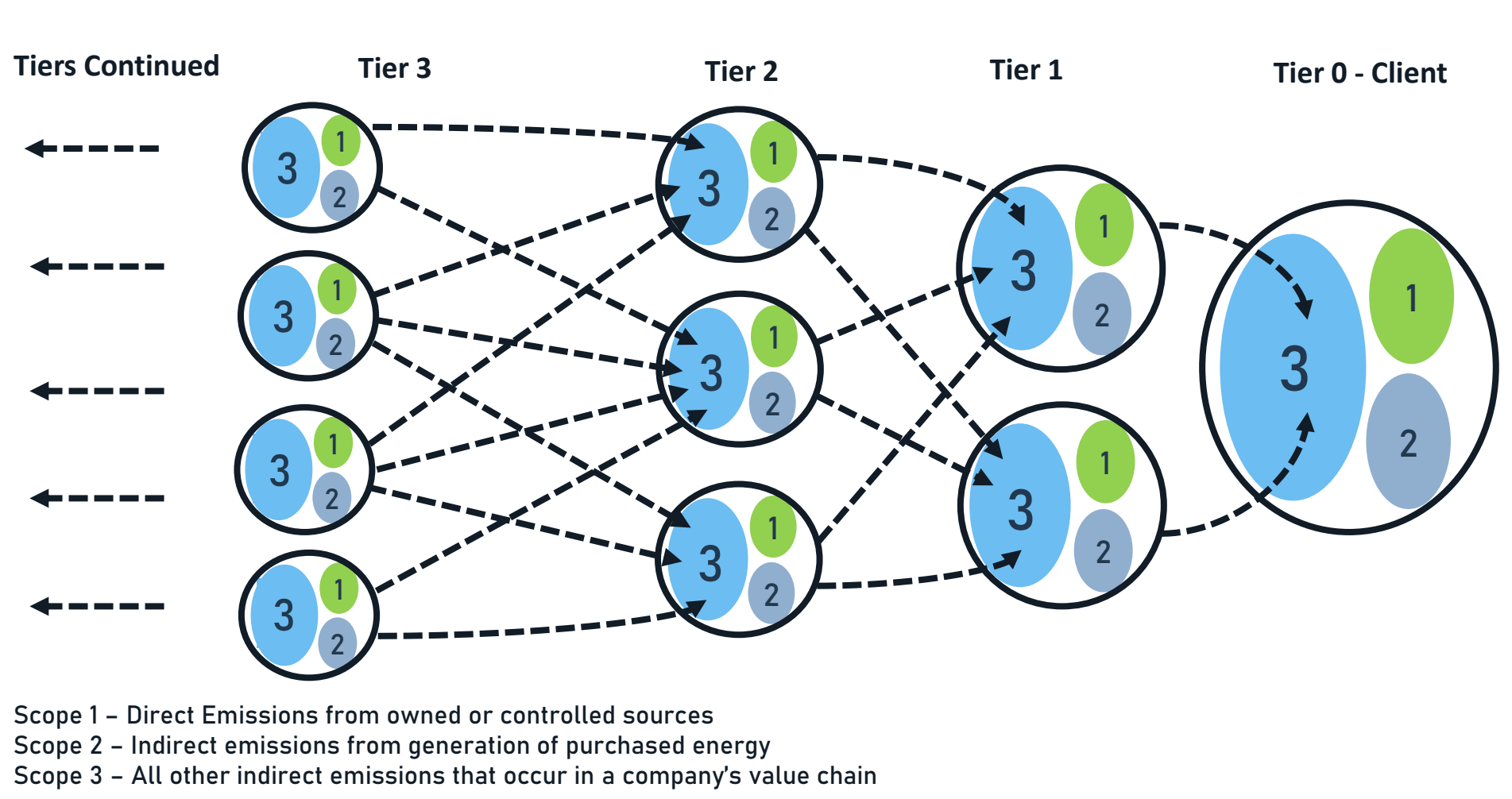
**Direct emissions** are emissions from sources that are owned or controlled by the reporting company

**Indirect emissions** are emissions that are a consequence of the activities of the company but occur at sources owned or controlled by another company

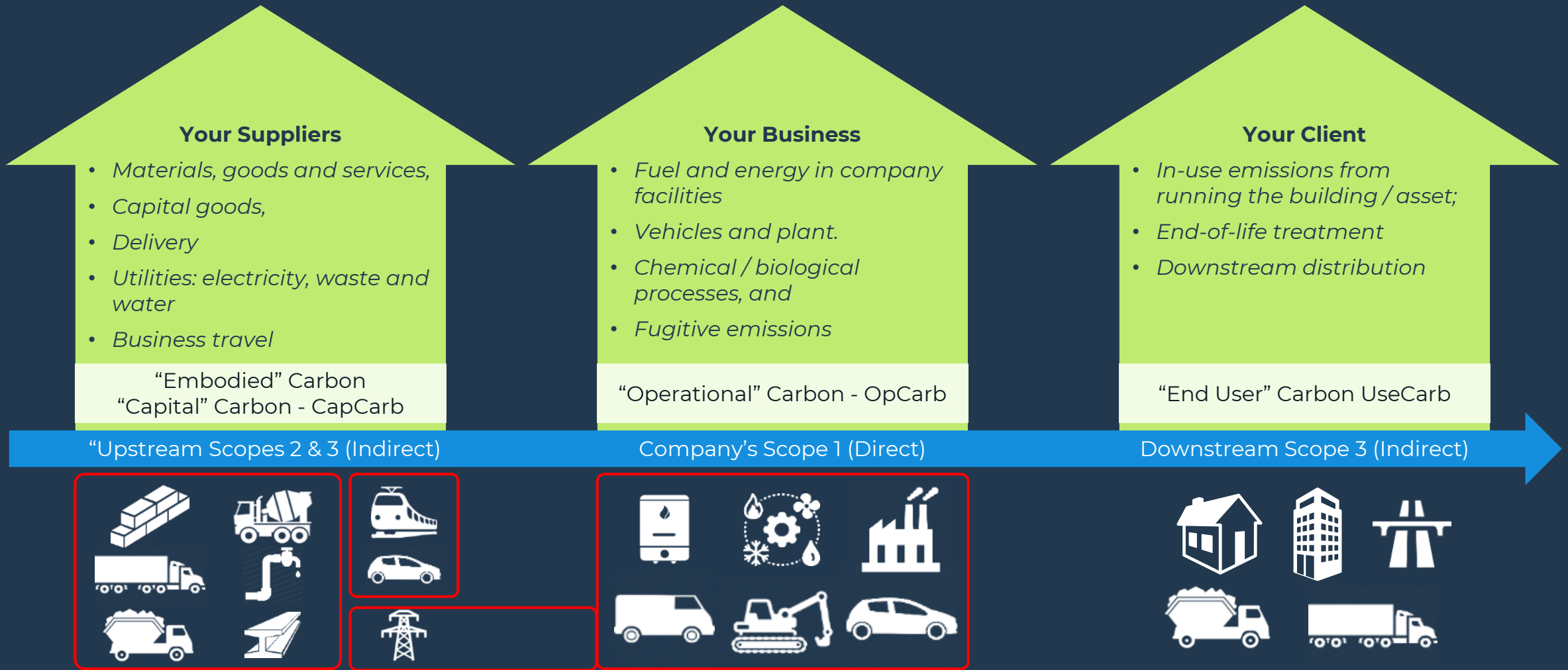
Figure [1.1] Overview of GHG Protocol scopes and emissions across the value chain



# The links between Scope 1, 2 and 3 carbon emissions in the Supply Chain



# Set your Boundaries for your Organisation





# Where to collect data from? Examples



## Scope 1

### Company Transport (owned/controlled by org)

- **What?** Amount of miles travelled
- **Where?** Mileage data from trackers, company fuel cards and mileage claims for expenses.

### Fossil Fuels

- **What?** Amount of fuels consumed (e.g. litres, tonnes, kWh)
- **Where?** Fuel bills and fuel expense claims.

### Fugitive emissions

- **What?** Leakages of GHGs (e.g. kg)
- **Where?** Your Health & Safety department will file an incident report for any Fugitive emissions leaks, due to the harmful nature of the gases.



## Scope 2

### Electricity

- **What?** Electricity consumed by your company. It includes both location-based (grid) emissions (mandatory) & market-based emissions (e.g. green tariffs, REGOs or PPAs)
- **Where?** Electricity bill or electric meter reads



## Scope 3

### Materials

- **What?** Amounts of materials purchased to manufacture your product or the product itself (e.g. tonnes)
- **Where?** Invoices or account records stored by your Financial department

### Third party transport

- **What?** Distance travelled in vehicles NOT owned or directly operated by your organisation for business purposes (e.g. miles; passenger.km)
- **Where?** Records of expenses claims for fuel, rail & air travel and/or employee transport surveys.

### Waste

- **What?** End-of-life disposal of materials using a variety of different disposal methods (e.g. tonnes)
- **Where?** Waste management company report & waste disposal invoices will state the type and destination on the waste you produce.

### Water

- **What?** water supply & wastewater treatment (e.g. litres)
- **Where?** Water bill or water meter readings



## Reporting Requirements

# Streamlined Energy & Carbon Reporting (SECR)

- In force as of: 1<sup>st</sup> April 2019 (and replaces the CRC)
- Qualification:
  - All quoted companies: LSE, EEAS, NYSE, NASDAQ (*builds on Mandatory GHG Reporting – Director's Report*)
  - Large unquoted companies (LUQC) & Limited Liability Partnerships (LLP):  $\geq$  £36m turnover, balance sheet  $\geq$  £18m,  $\geq$  250 or more employees (2 of 3)
- Scopes and Process:
  - Calculate Scopes 1 and 2 from for which they are responsible
  - Location-based Scope 2 electricity is mandatory; market-based is optional if using renewable power sources
  - Scope 3 business travel for LUQC & LLP responsible for purchasing fuel. Other scope 3 encouraged
  - Include underlying energy of gas, electricity, fuels and transport
  - Global for quoted; UK for LUQC & LLPs
- Additional requirements:
  - At least one intensity ratio (productivity), e.g. emissions per £ turnover, or GIFA, etc



# Energy Savings Opportunity Scheme (ESOS)

- In force as of: 17<sup>th</sup> July 2014, from EU Directive 2012/27/EU
- Qualification:
  - Large undertaking:  $\geq 250$  or more employees, or  $\geq \text{£}44$  million turnover and a balance sheet  $\geq \text{£}38$  million, or
  - Is part of a larger organisation which meets the above criteria and the highest UK parent acts as a 'responsible undertaking' and ensures the whole group complies.
  - An overseas company with a UK registered establishment which has 250 or more UK employees
- Scopes and Process:
  - Calculate energy use from assets and activities for which they are responsible, i.e. buildings, industrial processes and transport (scopes 1 and 2)
  - Identify significant areas of consumption, covering 90% of consumption
  - Appoint a lead assessor to carry out ESOS assessment, an employee or a third party, but they must be a member of an approved professional body listed in the [ESOS lead assessor register](#)
  - Audit criteria: 12 months' continuous data; analyse energy consumption and efficiency; identify energy saving opportunities that are practicable and cost effective to implement (estimated whole life costs & benefits – cost per unit energy saved); and include a representative sample of site visits



# Science Based Targets Initiative (SBTi)

- Purpose:
  - A partnership between CDP, the UN Global Compact, the World Resources Institute and the World Wildlife Fund
  - A method for any organisation to set carbon emissions reduction targets in line with the Paris Climate Agreement
  - Identify opportunities to reduce carbon and cost, and report to your clients
- Scopes and Process:
  - Select a suitable trajectory pathway (Absolute or Sectoral) and targets within the SBT method, depending on sector and own circumstances.
  - **Covers Scopes 1 and 2. Include Scope 3 if it accounts for  $\geq 40\%$  of total scope 1, 2 and 3 emissions**
  - Develop plan to hit reduction target in the 5 – 10 year timeframe: what actions will be taken to reduce emissions, as well as those of supply chain
  - Capture and analyse data for your business – report
- Reporting:
  - Annual. Provide carbon emissions data and actions undertaken.

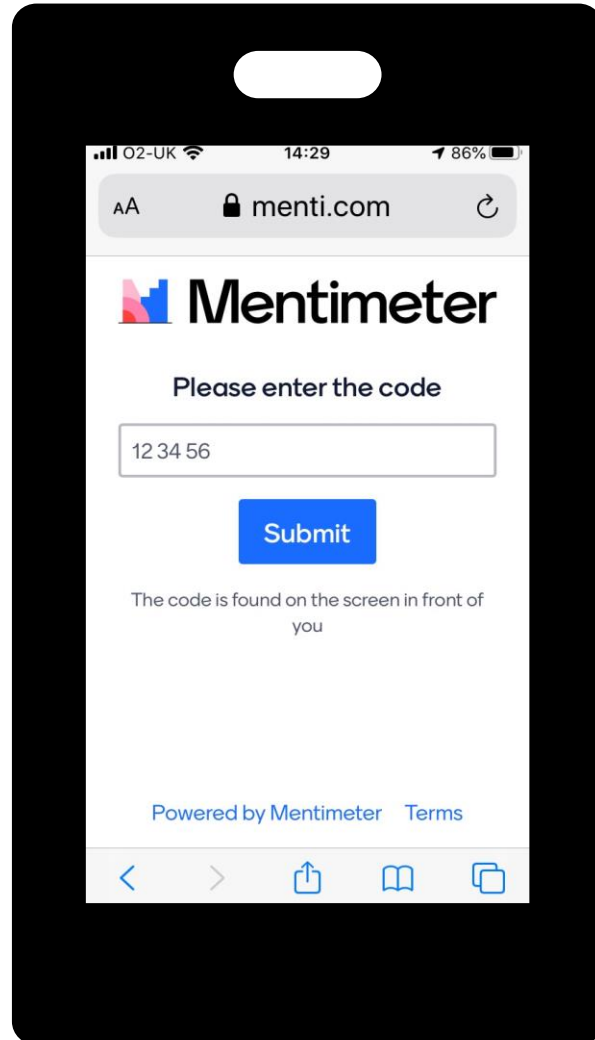


The end of the learning... for now...



...but the beginning of your carbon 'scoping'!.... **and a test!**





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Please provide your feedback





# Thank you!

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