

Your GHG Audit Toolkit Pt. 2: Transform Chaos into Clarity

Defining accounting approaches in
line with the GHG Protocol



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Today's webinar

- 01. Baseline year selection
- 02. Consolidation approach
- 03. Organisational structure
- 04. Data collection approach

Executive Summary

- The GHG Protocol's standards should guide every part of data collection
- Be prepared for your journey with key organisational boundaries
- Keeping your objectives for data collection clear at the start will give it structure, and help you stay prepared for repeat measurement
- Companies with renewable energy set up can reflect this choice through location-based methods that reflect that reality
- Work with audit season in mind; account vicariously for significant YOY changes

Compliance and achievement of these five main principles gets you a good report

Relevance

Reported emissions represent the GHG emissions of the company/facility/source and serve the decision-making needs of stakeholders

Accuracy

Ensure that uncertainties are reduced as far as practicable

Consistency

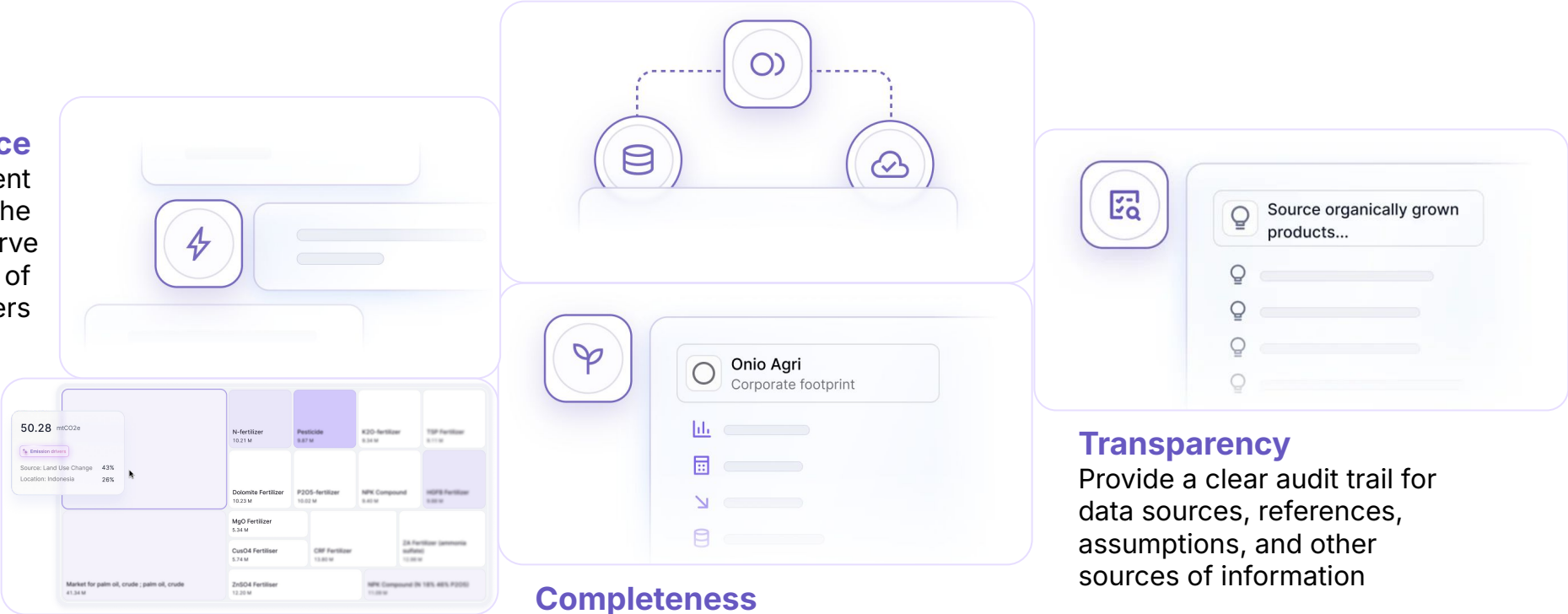
Use consistent methodologies, approaches, boundaries, etc. to allow for meaningful comparison of emissions across assets and over time

Transparency

Provide a clear audit trail for data sources, references, assumptions, and other sources of information

Completeness

Account for and report on all GHG emission sources



The year you select should abide by the GHG Protocol's good reporting principles

20 20 20 20

23 24 25 26

Completeness:

Do I have decent data availability for the base year?

Relevance:

How recent is the year?
Is the year representative?

Consistency:

Is there any significant changes to my business since the baseline year?

Recalculation

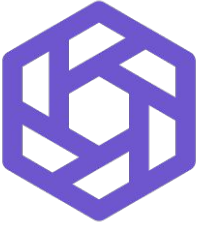
When do I recalculate?

- Recalculate only when emissions change exceeds any “significance threshold” (usually at 5%).
- Back this up with basis and context, as this usually done with significant effort.

What creates the need for recalculation?

- Structural changes
- Changes in calculation methodology
- Discovery of significant errors

How do I determine what's best for my organisation?



Equity share approach

- Aligns GHG reporting with financial accounting and ownership.
 - Suits complex joint ventures, partnerships, or minority stakes.
 - Simplifies proportional emissions allocation.
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Control approach

- Aligns GHG reporting with direct operational control.
- Suits operational structures where organisational boundaries are clearly defined.
- Highlights areas for direct emission reduction measures.
- Operational control reveals opportunities within operational boundaries.

Determining org structure achieves two main objectives

Key objective 1: Knowing what's included and excluded from the company's inventory; saving time on recalculation

Key objective 2: Breaking down emissions by BU can allow you to maximise decarb efforts

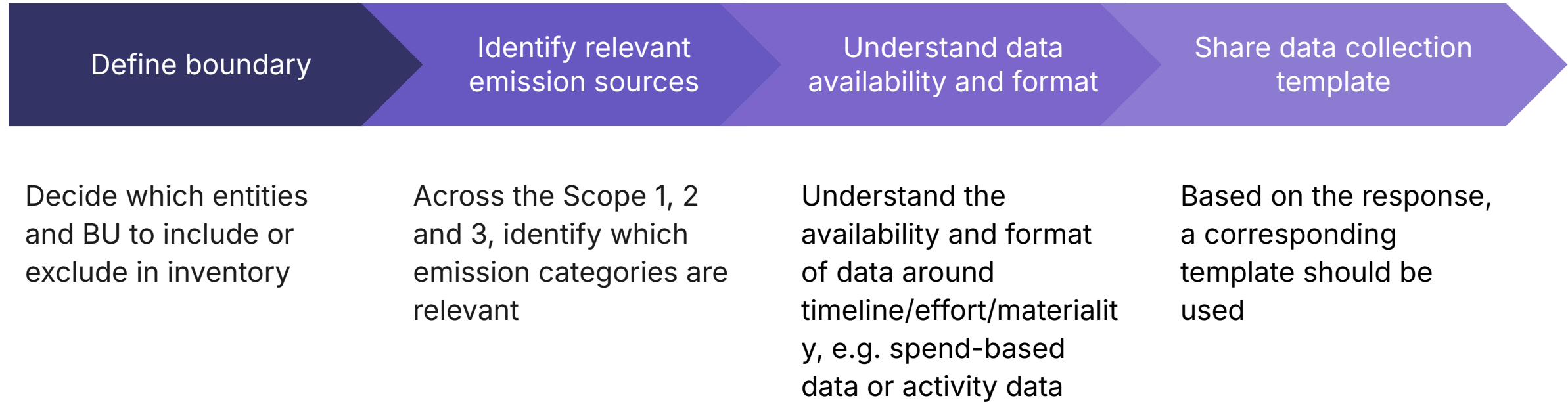
What's new?

IFRS S1 stipulates that the reporting entity for climate disclosure aligns with financial reporting.

Implication:

- this is consistent with what we have been doing, aligning accounting boundary with annual report/financial reporting

How is the data collection journey structured?



Data availability assessment

Category	Applicability (Y/N) (Is this applicable for the reporting company, regardless of whether it is material?)	Coverage (Y/N) (If yes, can you give a description of the nature of the emission source and its usage?)	Emission boundary covered (Please provide emission sources if covered)	What kind of data is available? (Please note down any exclusions and any justification)	What is the nature of your collection efforts? (Has it already been done? What protocols do you have for collecting data?)
Scope 1					
Stationary sources	Y	Y	E.g. natural gas used in kitchen stoves	Activity-based data	Natural gas used in liters
Mobile sources	NA - company does not have company vehicles	N	NA	Spend-based data; fuel receipts not captured pre-2007 due to fire	NA
Process emissions	NA - company operations do not have process emissions	N	NA	NA	NA
Fugitive emissions	Y	Y	E.g. refrigerant used in air conditioning	NIL	Type and amount of refrigerant used in liters

How should I manage repeat measurements?



Account for Changes
in Business Context




Anticipate Changes
in Measurement

Location-based methodology

- Location-based methods reflect the average emissions intensity of grids on which the organisation is consuming energy (using grid-average emission factor data).
- The GHG Protocol **does not require but recommends** that companies use the most appropriate, accurate, precise, and highest quality emission factors available.

Grid average emission factors, shown here on the right, should represent all the emissions from energy generation occurring within a defined geographic region.

Emission factors	Indicative examples
Regional or subnational emission factors Average emission factors representing the electricity production occurring in a defined grid distribution region that approximates a geographically precise energy distribution and use area. Emission factors should reflect net physical energy imports/exports across the grid boundary.	eGRID total output emission rates (U.S.) Defra annual grid average emission factor (UK)
National production emission factors Average emissions factors representing all electricity production information from geographic boundaries that are not necessarily related to dispatch region, such as state or national borders. No adjustment for physical energy imports or exports, not representative of energy consumption area.	IEA national electricity emission factors

Emission factors	Indicative examples	Precision
Energy attribute certificates or equivalent instruments (unbundled, bundled with electricity, conveyed in a contract for electricity, or delivered by a utility)	<ul style="list-style-type: none"> Renewable Energy Certificates (U.S., Canada, Australia and others) Generator Declarations (U.K.) for fuel mix disclosure Guarantees of Origin (EU) Electricity contracts (e.g. PPAs) that also convey RECs or GOs Any other certificate instruments meeting the Scope 2 Quality Criteria 	<div>Higher</div>  <div>Lower</div>
Contracts for electricity, such as power purchase agreements (PPAs) ^a and contracts from specified sources, where electricity attribute certificates do not exist or are not required for a usage claim	<ul style="list-style-type: none"> In the U.S., contracts for electricity from specified nonrenewable sources like coal in regions other than NEPOOL and PJM Contracts that convey attributes to the entity consuming the power where certificates do not exist Contracts for power that are silent on attributes, but where attributes are not otherwise tracked or claimed 	
Supplier/Utility emission rates , such as standard product offer or a different product (e.g. a renewable energy product or tariff), and that are disclosed (preferably publicly) according to best available information	<ul style="list-style-type: none"> Emission rate allocated and disclosed to retail electricity users, representing the entire delivered energy product (not only the supplier's owned assets) Green energy tariffs Voluntary renewable electricity program or product 	
Residual mix (subnational or national) that uses energy production data and factors out voluntary purchases	<ul style="list-style-type: none"> Calculated by EU country under RE-DISS project ^{b, c} 	
Other grid-average emission factors (subnational or national) – see location-based data	<ul style="list-style-type: none"> eGRID total output emission rates (U.S.).^d In many regions this approximates a consumption-boundary, as eGRID regions are drawn to minimize imports/exports Defra annual grid average emission factor (UK) IEA national electricity emission factors^e 	

What does a functional specification cover and why?

Which emission source categories are included or excluded

Covers the principle of relevance, ensuring measured emissions support decision making and gives insights

Why certain assumptions were made in emissions measurement

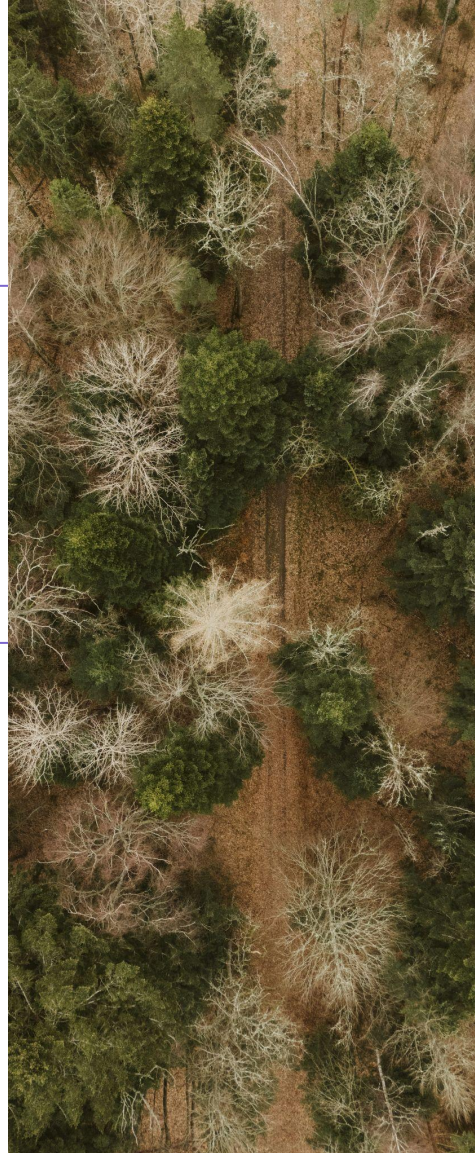
Covers the principle of transparency, allows auditors / third-party verifiers conduct quality assurance

How inventory boundaries were defined during measurement

Covers the principle of completeness, meaning all relevant and material GHG emission sources are included

What methodology was applied (e.g. operational control vs financial control)

Covers the principle of consistency, making sure consistent methods, approaches and boundaries are applied

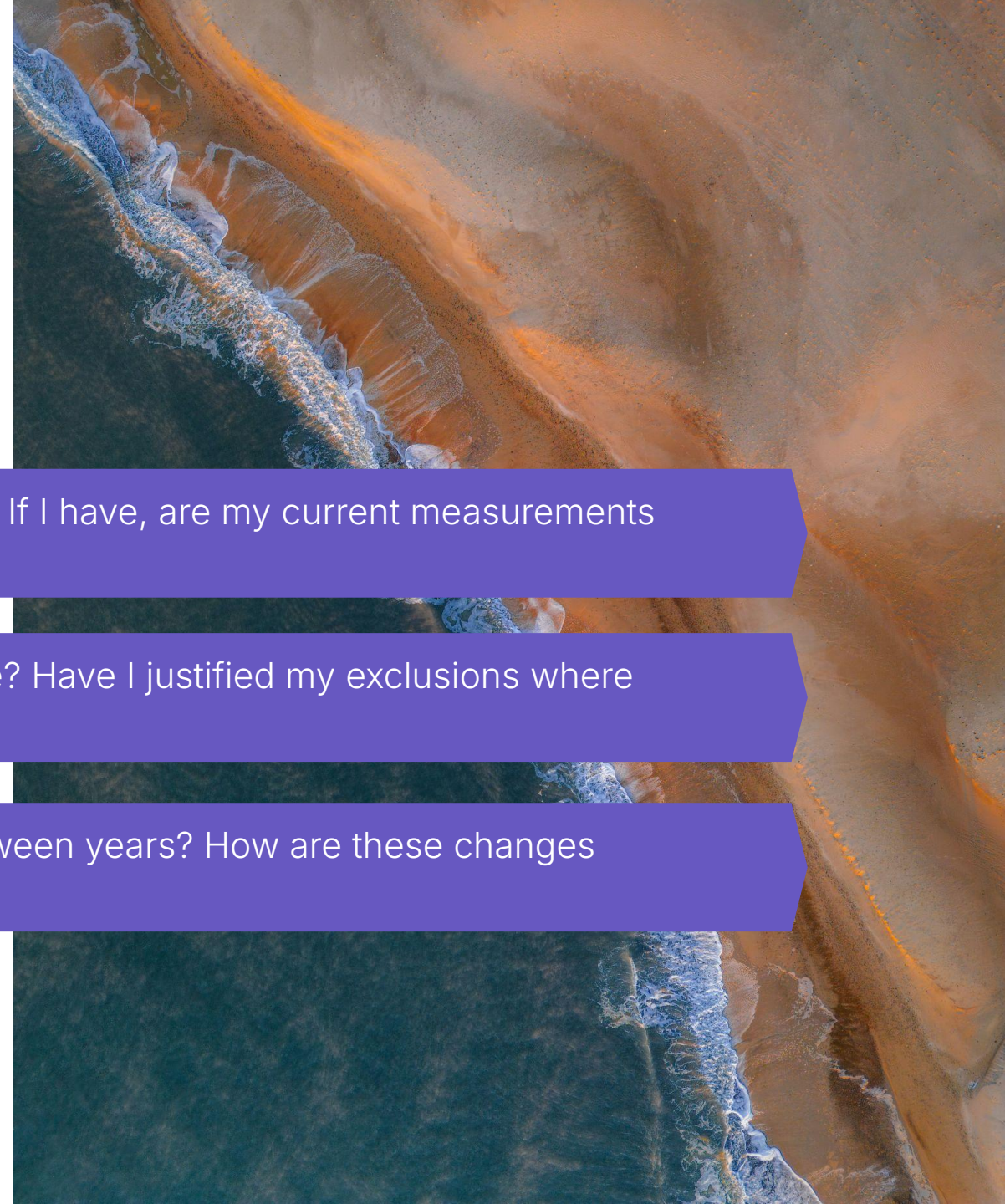


Now that I'm done with my inventory, how should I verify whether I'm going the right way?

Question 1: Have I committed to a measurement boundary? If I have, are my current measurements correctly classified within them?

Question 2: How reasonable are the assumptions I've made? Have I justified my exclusions where applicable?

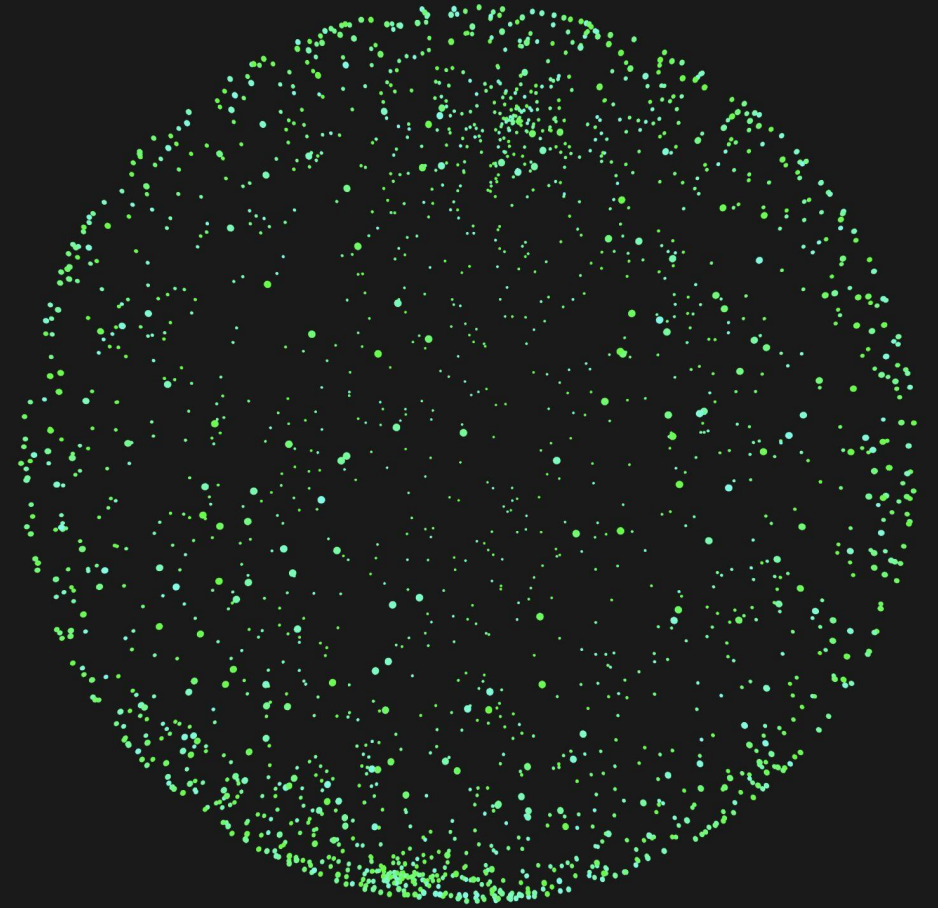
Question 3: Have I quantified a difference in emissions between years? How are these changes distributed across my scope categories?



Thank you *for your time*

Let's work together for a sustainable future and
keep our planet habitable for all.

[See how we can support your journey](#)



Appendix

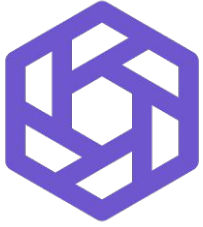
When do I recalculate?

- Recalculate only when emissions change exceeds any “significance threshold” (usually at 5%).
- Back this up with basis and context, as this is usually done with significant effort.

What creates the need for recalculation?

- Structural changes (Mergers, acquisitions, and divestments, outsourcing and insourcing of emitting activities)
- Changes in calculation methodology, including improvements in the accuracy of emission factors or activity data
- Discovery of significant errors, or a number of cumulative errors, that are collectively significant.

Approaches for setting GHG inventory boundaries



Equity share

This approach is based on the share of ownership that a company has in its operations, assets, and subsidiaries. An organization accounts for GHG emissions from operations and assets according to its share of equity in the operation.



Control approach (Financial control)

This approach is based on the degree of financial control a company has in its operations, assets and subsidiaries. The organization has financial control over the operation if it can direct the operation's financial and operating policies with a view to gaining economic benefits from the operation's activities. It accounts for 100 percent of the GHG emissions over which it has financial control. It does not account for GHG emissions from operations it owns equity in but does not have financial control over.



Control approach (Operational control)

This approach is based on the degree of operational control a company has. It has operational control if it has the authority to introduce and implement operating policies. It does not account for GHG emissions from operations it owns equity in but does not have operational control over.

An organization accounts for 100 percent of emissions from operations over which it or one of its subsidiaries has operational control.