

The National Association for Environmental,
Health & Safety, and Sustainability (EHS&S)
Management (NAEM)

Setting Up a GHG Quantification Program



Mother
PARKERS[®]
TEA & COFFEE | EST. 1912

 **MONTROSE**
ENVIRONMENTAL



PRESENTERS



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Mother Parkers Tea & Coffee
Director of Sustainability, Strategy,
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What You Will Learn

- ✓ Lessons learned by a privately owned organization in their journey to build an Environmental, Social, and Governance (ESG) program.
- ✓ Insights into the common challenges and practical solutions for successfully developing a Greenhouse Gas (GHG) emissions inventory
- ✓ What an Inventory Management Plan (IMP) is and the process for creating one.
- ✓ The importance of conducting stakeholder alignment and materiality assessment in phases, where to start, and what to prioritize.
- ✓ Understand the current landscape and emerging trends shaping the future of GHG emissions disclosures.



Montrose Environmental

Providing strategy, selection, setup, and support of leading EHS/ESG information management systems to manage compliance and risk while enhancing value for your organization, customers, employees, and the environment.

- Risk Management
- Management of Change
- Regulatory Compliance
- Greenhouse Gas
- ESG
- Air/Water/Waste
- Organizational Change Mgmt.
- Process Safety
- Incidents
- Learning Management
- Audits
- Inspections
- Occupational Health
- Control of Work / Permit to Work

Mother Parkers Tea & Coffee

- A fourth-generation, family-owned, privately held company.
- Mother Parkers' business is primarily focused on providing private label coffee and tea beverage solutions to our customers.
- Supplier of choice to some of North America's largest retailers and foodservice operators.
- Voluntary reporting of GHG emissions and sustainability goals/progress to Carbon Disclosure Project (CDP), SupplyShift/THESIS and unique customer specific reporting.



Acronyms During the Presentation

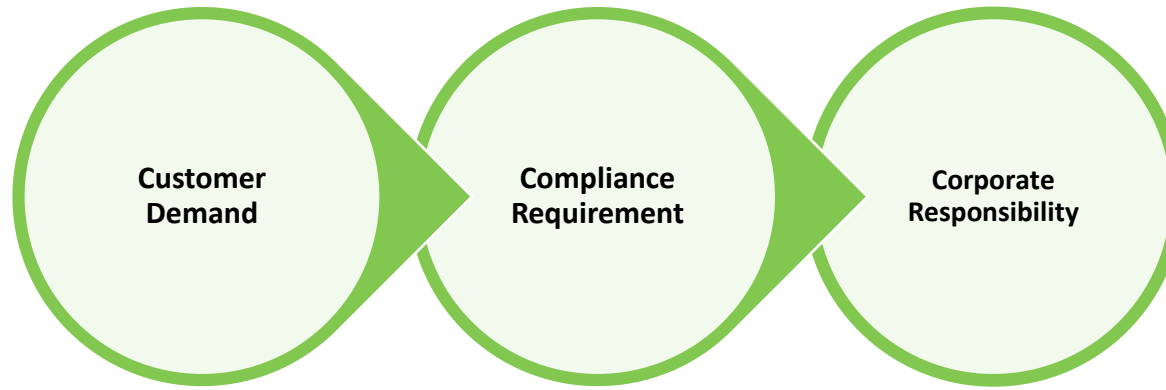
- **Carbon Disclosure Project (CDP):** CDP is a global non-profit that runs the world's only independent environmental disclosure system for companies, capital markets, cities, states and regions to manage their environmental impacts and make Earth-positive decisions.
- **GHG Protocol:** Corporate Accounting and Reporting Standard, which provides a step-by-step guide for companies to use in quantifying and reporting their GHG emissions.
- **Greenhouse gases (GHG):** GHGs are the six gases listed in the Kyoto Protocol: carbon dioxide (CO₂); methane (CH₄); nitrous oxide (N₂O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulphur hexafluoride (SF₆).
- **GHG Inventory:** A quantified list of an organization's GHG emissions and sources.
- **Science-Based Targets (SBT):** Targets are considered 'science-based' if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to 1.5°C above pre-industrial levels.
- **Science-Based Targets Initiative (SBTi):** The Science Based Targets initiative (SBTi) is a corporate climate action organization that enables companies and financial institutions worldwide to play their part in combating the climate crisis.
- **Scope:** Defines the operational boundaries in relation to indirect and direct GHG emissions.
- **Scope 1:** inventory A reporting organization's direct GHG emissions.
- **Scope 2:** inventory A reporting organization's emissions associated with the generation of electricity, heating/ cooling, or steam purchased for own consumption.
- **Scope 3:** inventory A reporting organization's indirect emissions other than those covered in scope 2.

So you have been asked by your company or customer to start a GHG Inventory for your company...

Where do you start?



Understand “WHY” You Need to Start GHG Inventory



EXAMPLES OF GHG INVENTORY BUSINESS NEED & VALUE:

- **Customer:** Disclosure to voluntary GHG reporting, requirement to set SBT's and initiate abatement plan.
- **Compliance:** Disclosure required for mandatory (government or industry) reporting, or participation in carbon markets (like cap-and-trade or carbon tax). This is the fastest evolving area in carbon reporting.
- **Corporate Responsibility:** Demonstrate alignment of your company's values to that of your customer/consumer.

Inventory Management Plan is Cross-Functional

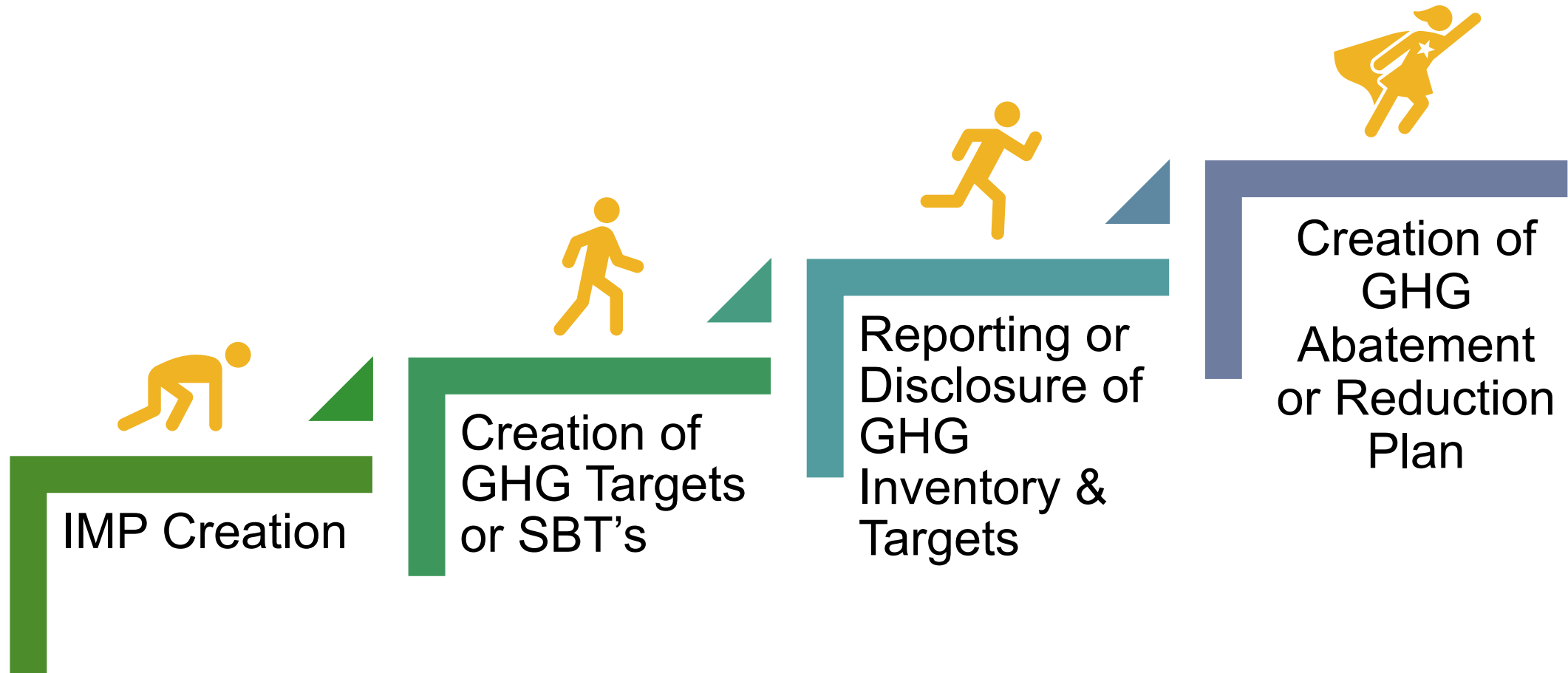
ROLE	RESPONSIBILITY
Chief Operating Officer (COO)	Executive Sponsor
Chief Commercial Officer (CCO)	Executive Sponsor
Director of Sustainability	Inventory Manager
Sustainability Specialist	Inventory Manager
Sr. Director Engineering	Manufacturing/Operations Lead
EHSS Director	EHSS Lead
Senior Manager, Transportation	Transportation Lead
Corporate Controller, Finance	Finance Lead
Manager, Sourcing & Supply Chain	Procurement Lead
Sr. Director Human Resources	Human Resources Lead

These roles are responsible for GHG inventory management.

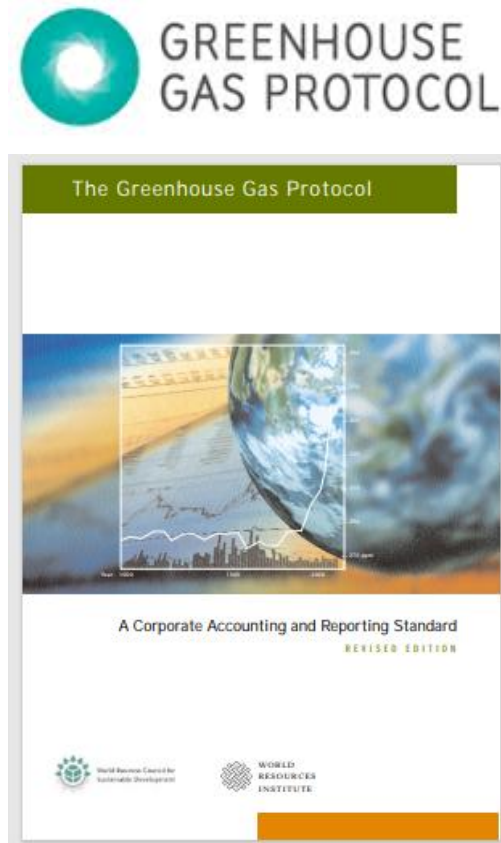
These roles “volunteer” their time = buy-in needed.

IMP is the Foundation to a Climate Action Program

Climate Action Plan Evolution



Introduction to the Greenhouse Gas Protocol and Principles



<https://ghgprotocol.org>

PRINCIPLES	DESCRIPTION	EXAMPLE
Relevant	GHG inventory must contain all the relevant information that is required for decision making.	Select the GHG sources, GHG sinks, GHG reservoirs, data and methodologies appropriate to the needs of the intended user .
Complete	GHG inventory must have complete information regarding emission sources and activities within the selected boundary.	Includes data for all scope 1, 2 and 3 sources within inventory boundary.
Consistent	Use consistent methodologies to allow for meaningful comparisons of emissions over time.	The same methodology is used to calculate the emissions year-over-year.
Transparent	Disclose assumptions clearly, factually and neutrally by maintaining proper documentation.	The data used to calculate the emissions sources are well-documented .
Accurate	Maintain accuracy and reduce uncertainty while calculating emissions for proper decision making.	The company uses country or boundary specific data for emissions sources.

Calculation of GHG Emissions



**Usage from
Electricity
Invoices (kWh)**

X



**Regional
Emission
Factor
(lb/MWh)**

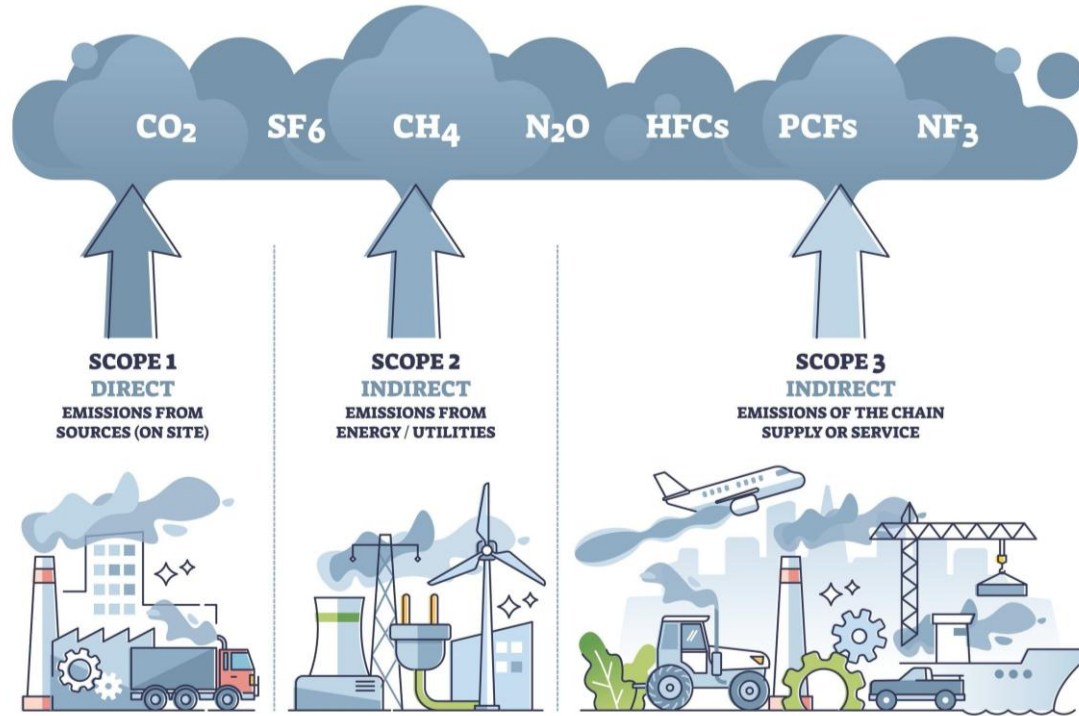
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Scope 1 and Scope 2 GHG Emissions³⁸

Reported in metric tons of carbon dioxide equivalents (MTCO ₂ e)	2023	2022	2021 ³⁹	2020 ⁴⁰
Scope 1 Direct GHG emissions	11,621	11,397	6,180	6,301
Vehicle Fleet ⁴¹	9,498	9,318	5,267	3,744
Vehicle, Gasoline Fuel	6,438	6,407	3,668	2,389
Vehicle, Diesel Fuel	3,060	2,911	1,599	1,355
Aircraft, Jet Fuel ⁴²	268	83	81	-
Natural Gas and Propane (building use) ⁴³	1,754	1,895	832	2,556
Refrigerants (building use) ⁴⁴	101	101	-	-
Scope 2 Indirect GHG emissions (purchased electricity, location-based method)⁴⁵	5,261	5,133	4,662	1,962
Total Scope 1 and Scope 2 GHG emissions	16,882	16,530	10,842	8,263

Source: 2023 Montrose Environmental Sustainability Report

Planning a GHG Inventory



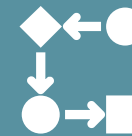
Identify requirements of both Internal and external stakeholders



Review methodologies to calculate GHG Emissions



Map data sources, assess data availability, identify gaps, and develop assumptions.



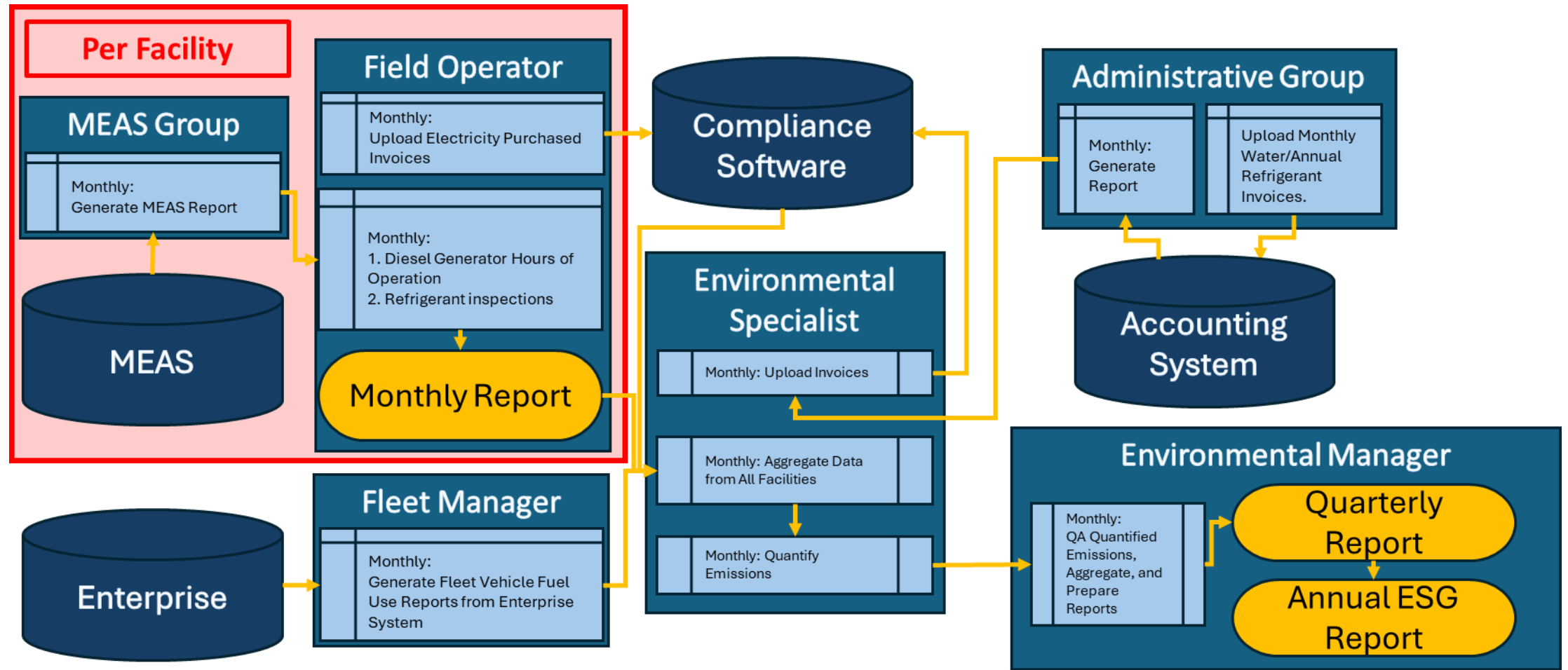
Build an organizational process with roles and responsibilities



Centralized documentation of standards and gaps to provide transparency, create consistency and ensure, alignment

Source: <https://kunakair.com/greenhouse-gases-and-climate-action/>

Organizational Data Flow



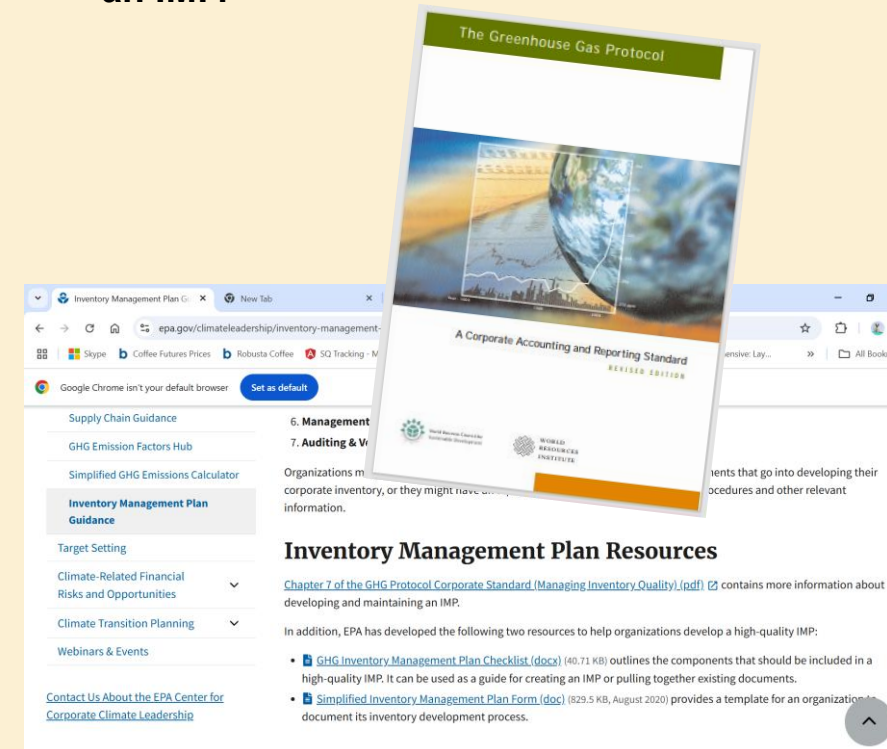
Developing an Inventory Management Plan (IMP)

IMP SECTIONS:

1. Organization Information
2. Boundary Conditions
3. Emissions Quantification
4. Data Management
5. Base Year
6. Management Tools
7. Employee Training
8. Auditing & Verification



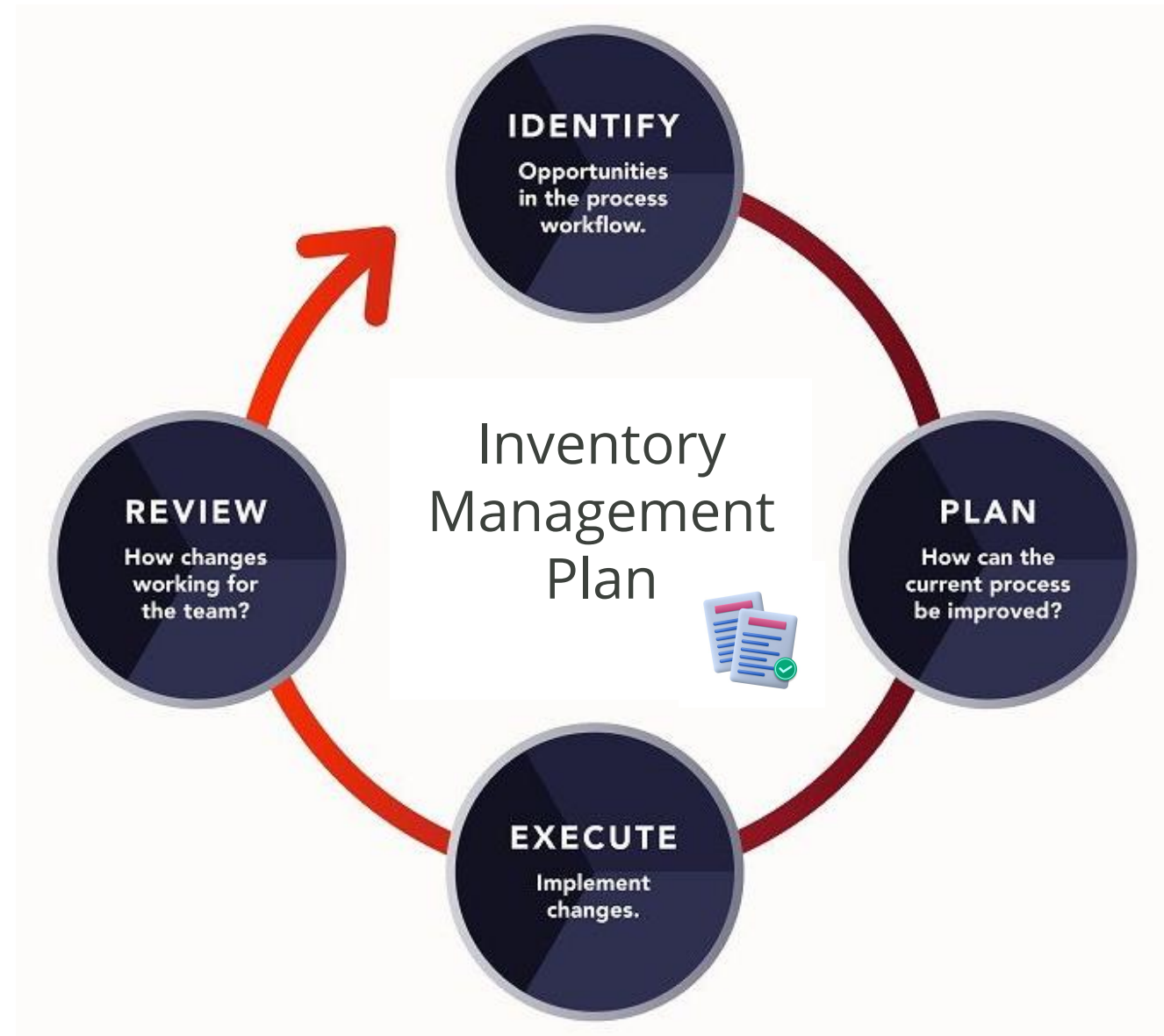
Check out the GHG Protocol Section 7 and the EPA Website for templates, tips and resources for developing and maintaining an IMP.



Source: www.epa.gov/climateleadership/inventory-management-plan-guidance

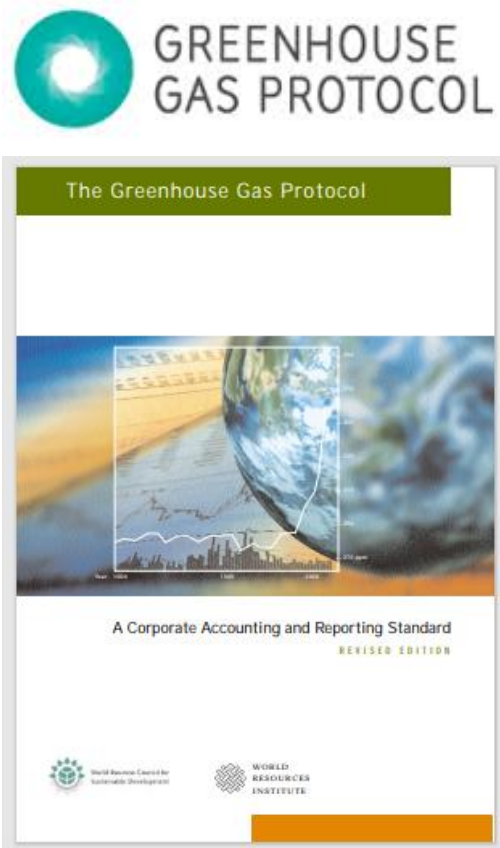
Continuous Improvement Cycle

- Build and document a strong foundation that can be enhanced upon over time, rather than aiming for perfection during the first cycle.
- Identify strategies for addressing gaps.
- Develop a flexible process for adopting continuous improvements



Source: <https://www.planview.com/resources/guide/lean-principles-101/what-is-continuous-improvement/>

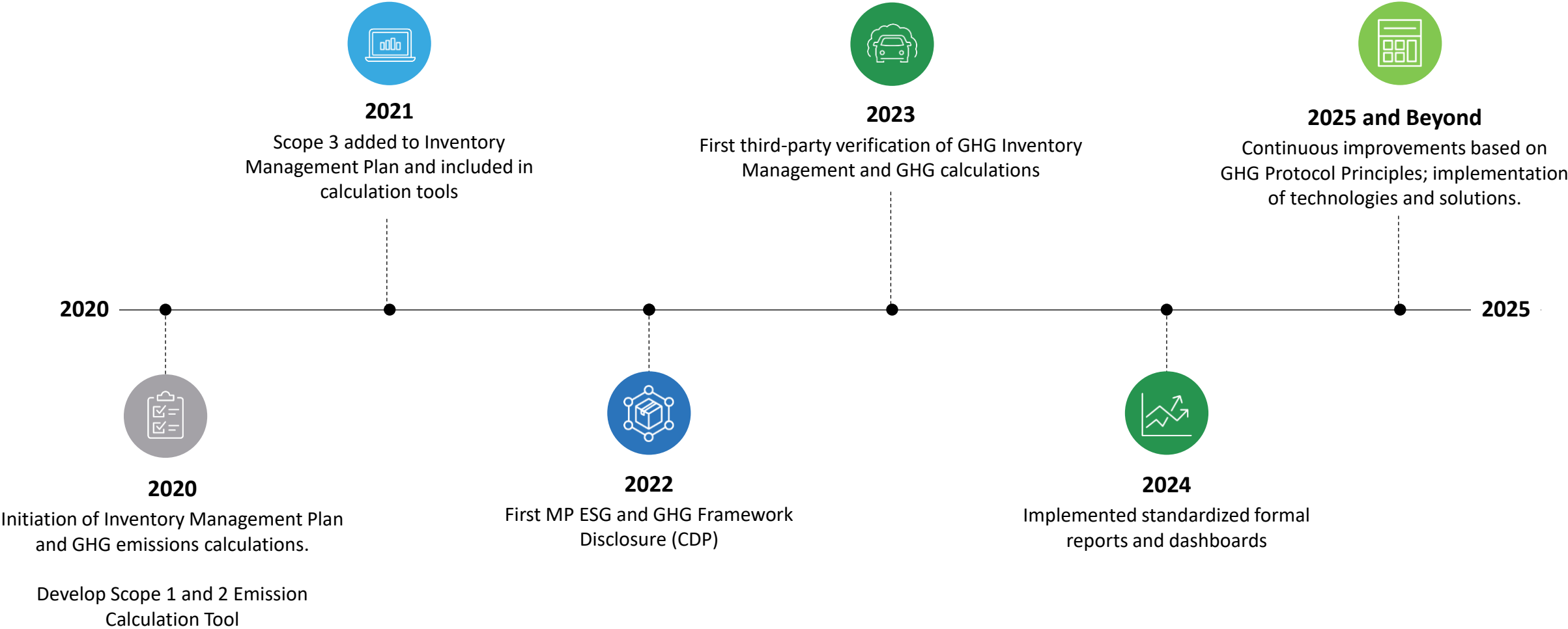
Bringing it Back...



Source: <https://ghgprotocol.org>

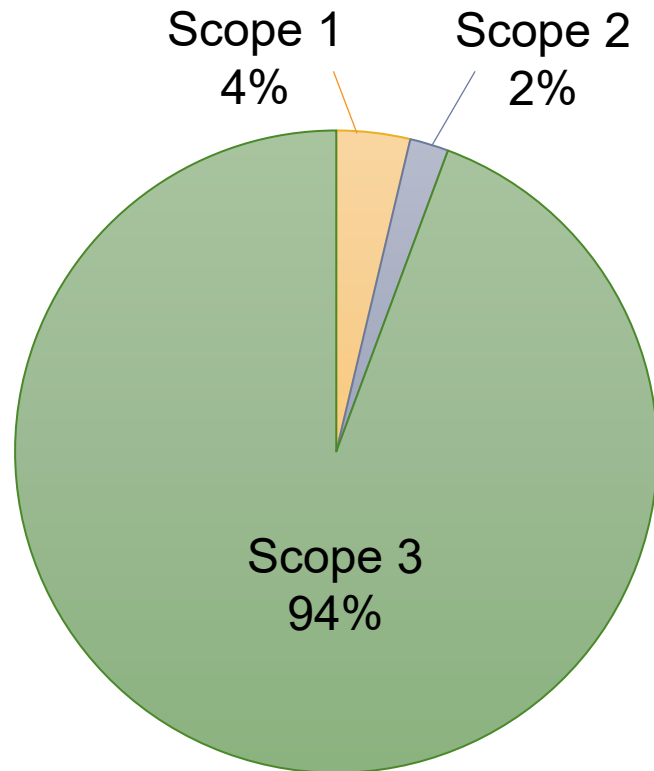
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Mother Parkers GHG Quantification Timeline



Example of Continuous Improvement – GHG Protocol Principles

MOTHER PARKERS 2024 GHG EMISSIONS FOOTPRINT BY GHG CATEGORY



- Scope 3 – Purchased Goods and Services is the largest category of emissions = coffee and tea cultivation.
- No standardized or industry accepted emissions factors exist for coffee and tea cultivation = completeness, consistency and accuracy challenges for company and industries.
- Leadership opportunity! Collaborate with industry associations and sustainability platforms.

Resources



GHG PROTOCOL

Greenhouse Gas (GHG) Protocol
[https:// www.ghgprotocol.org](https://www.ghgprotocol.org)

World Resources Institute (WRI)

Best practice methodologies for calculating GHG Emissions



EPA IMP GUIDELINES

Environmental Protection Agency (EPA)
<https://www.epa.gov/climateleadership/inventory-management-plan-guidance>

Checklists and data collection spreadsheets for developing an Inventory Management Plan.



SASB MATERIALITY FINDER MATRIX

Sustainability Accounting Standards Board (SASB)
<https://sasb.ifrs.org/standards/materiality-finder/>

Understanding financially material sustainability topics for each industry segment.

Review

- Begin to question why your organization needs to calculate a GHG Inventory.
- Identify the business need and value, and who will need to be involved in the decision-making process.
- Collect requirements and understand prioritization.
- Start simple, only focus on the highest priorities and develop a plan of action.
- Document standards, processes, and areas for improvement in an IMP or similar document
- Implement a process to that will allow for adoption of enhancements over time.



QUESTIONS



**THANK YOU
AND
CONTACT US!**



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