

Scope 3 Emissions & Offsetting

Sept 2023



Intro + Background



**Not a specialist in formal Scope 3
Calc Methodologies or Offsetting!**

Career Summary:

- Upstream Oil & Gas for ~25 years
- Chartered chemical engineer for >20 years, spent much of career calculating, fact-checking & explaining production, emissions + impacts..
- Observation that *'orgs full of clever experienced people can make terrible decisions'* led me to MSc in Operational Research, completed 2020
- Was 'exited' from oil + gas in 2020; co-founded our business to help orgs make good decisions in accelerating real decarbonisation

Perspectives of a (Purpose-Driven) Business Owner

1. Managing Scope 3 Emissions

- Our Experience
- Company Challenges

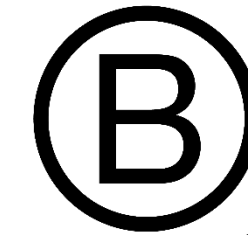
2. Managing Offsets

- Our Experience
- Company Challenges

3. Tools to Help Understanding


4. Summary & Closing Thoughts

Certified



Corporation

This company is committed to
accountability, transparency,
and continuous improvement.

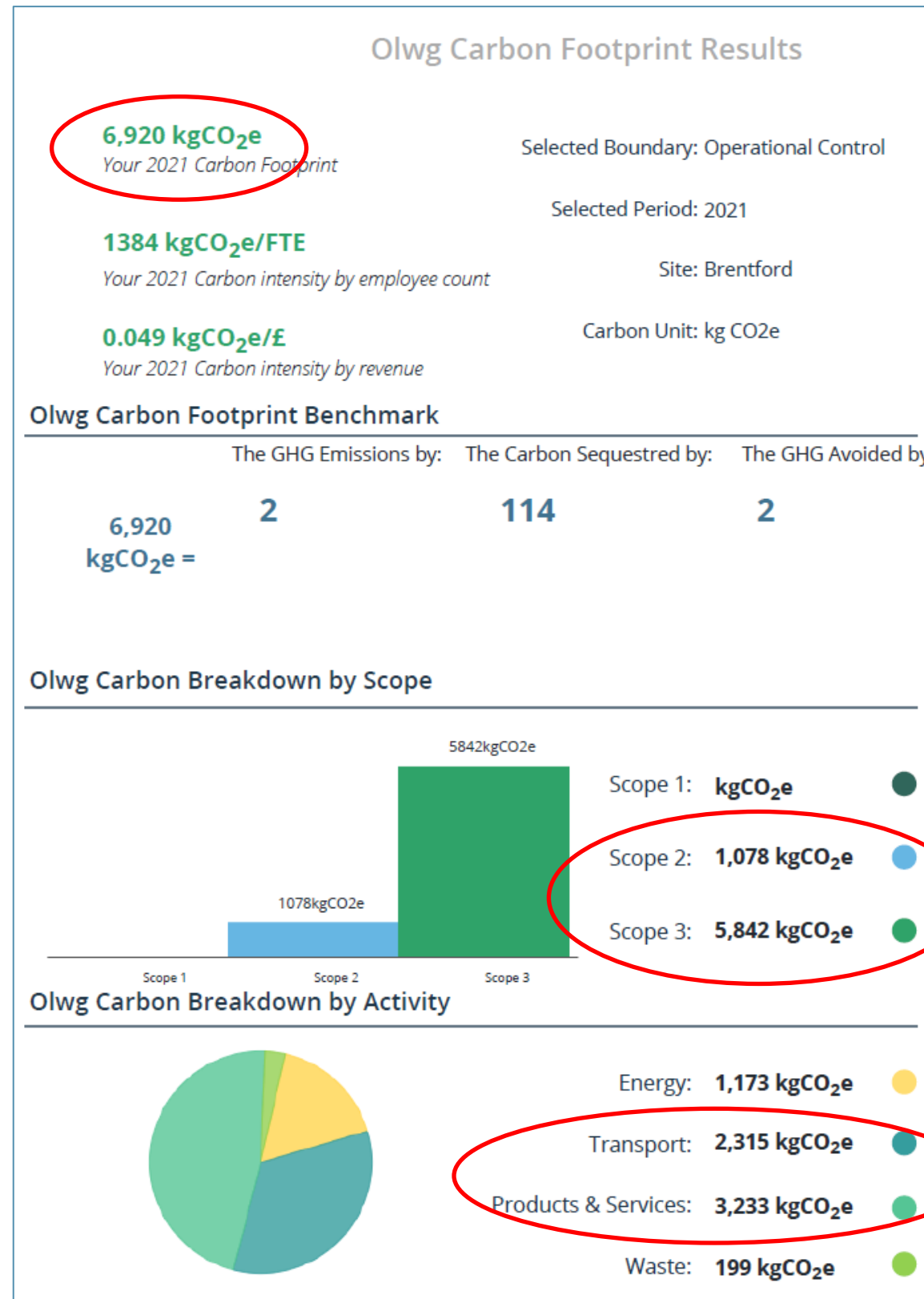


EVERY B CORP
GOES BEYOND

Managing Scope 3 Emissions – Our Experience

Used **Climate Essentials** software (by *Climax Community*) – local SME; promoted by West London Business as a good tool

It **identified the data our business needed to gather** + calculated full impact, according to Greenhouse Gas Protocol



Olwg Scope Breakdown

*Bal: Boundary and Lesing selection. Because the way you have selected your business boundaries and how to account for leased assets, some Scope 1 and Scope 2 emissions have now been assigned to Scope 3.

Brentford | 2021

Scope 1	kg CO ₂ e	Scope 2	kg CO ₂ e	Scope 3	kg CO ₂ e
Grid Gas		District Heating		Business Travel - Land	1,770
Heating Oil		Electricity	1,078	Business Travel - Air	
LPG		Electric Vehicles		Employee Commuting	545
Petrol		Electric Vans		Employee WFH	1,663
Diesel		Heat Pumps		Employee Food & Drinks	1,187
Diesel Vehicles		Total:	1,078	Water Use	32
Petrol Vehicles				Products Purchases	236
Hybrid Vehicles				Services	
Petrol Vans				Hotel Stays	
Diesel Vans				General Waste	182
HGV				Recyclable Waste	17
Wood Chips				Food Waste	
Refrigerants				Other Emissions	0
				Events	115
				Total:	5,842



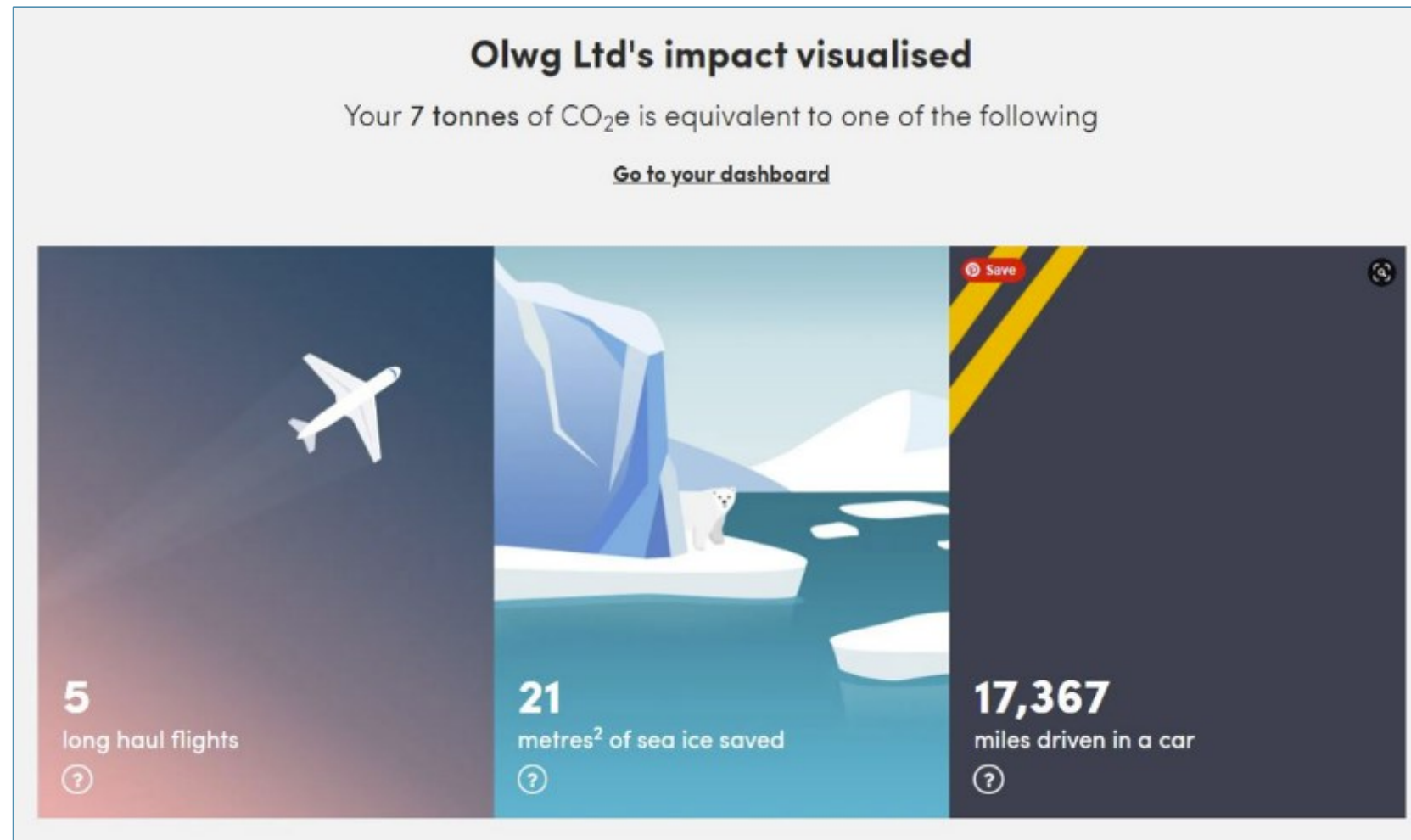
Managing Scope 3 Emissions – Company Challenges

“Managing and reducing Scope 3 emissions for a business can be challenging due to several reasons”:

1. **Complexity and Scope**
2. **Data Availability and Quality**
3. **Supplier Engagement**
4. **Scope Definition**
5. Technological Limitations
6. Cost Considerations
7. Regulatory Uncertainty
8. **Consumer and Stakeholder Expectations**
9. **Long-Term Commitment**
10. **Supply Chain Complexity**

“Successful management and reduction of Scope 3 emissions often require a holistic approach, collaboration with stakeholders, investment in data and technology, **and a clear commitment to sustainability goals**”. *[credit: ChatGPT]*

Managing Offsets – Our Experience



Used **Ecologi** platform to offset – seemed to be a highly-regarded robust + verified product

Offsets priced at £9.45 / tonne CO₂ avoided

Climate projects Olwg Ltd have supported

Your funding directly impacts atmospheric CO₂ levels

[Visit project insights page](#)



Wind power project in Mexico

Preventing the emission of 245,015 tonnes of CO₂e every year through wind power

2.31T CO₂ REDUCED



First Ever Wind Power Project in Honduras

Preventing the emission of 226,978 tonnes of CO₂e every year through wind power

4.69T CO₂ REDUCED

Used to fund **CO₂-avoiding projects** such as wind, solar or landfill-reduction projects **in developing countries**

Tree-planting can also be purchased at relatively low cost, but **not counted as CO₂-avoiding offsets**

EVERY B CORP GOES BEYOND

Managing Offsets – Company Challenges

“Offsetting scope 3 emissions for a business can be challenging due to several factors”:

1. Scope and Complexity
2. Data Availability
- 3. Costs**
- 4. Offset Quality**
- 5. Rebound Effects**
6. Regulatory Uncertainty
- 7. Stakeholder Expectations**
- 8. Integration with Business Strategy**
9. Technological Barriers
- 10. Behavioral Change**

“To address these challenges, businesses must adopt a comprehensive and transparent approach to scope 3 emissions management, work collaboratively with suppliers and partners, and **consider a mix of emissions reduction strategies and high-quality offset projects.**” *[credit: ChatGPT]*

Tools to Help Understanding (Scope 3)

Unit Converter ABOUT

CO2E CO2E RATE AREA ENERG >

Input: 22000

From: km/yr travelled - aviation commercial

To: te/yr CO2

Answer: 1.771

Flying:
London – Singapore
return (11,000 km x 2)
~ 1.8 tonnes CO₂

Input: 16000

From: km/yr travelled - car diesel, medium

To: te/yr CO2

Answer: 2.2127994

10,000 mi/yr diesel car
~ 2.2 te/yr CO₂

Input: 16000

From: km/yr travelled - car elec from UK grid ave

To: te/yr CO2

Answer: 0.60399991

10,000 mi/yr EV car from
UK grid ~ 0.6 te CO₂/yr

Input: 16000

From: km/yr travelled - rail elec from UK grid ave

To: te/yr CO2

Answer: 0.08

10,000 mi/yr train from
grid <0.1 te/yr CO₂

X 3.7 lower

X 7.5 lower

~ 27 times lower



Tools to Help Understanding (Scopes 1 + 2?)

Unit Converter

CO2E CO2E RATE AREA ENERG >

Input: 4000

From: kWh/yr Elec - UK grid 2020 ave.

To: te/yr CO2

Answer: 0.88800089

Home elec @2020:
(220 g CO2/kWh)
~ 0.9 te/yr CO₂

X 2.2 lower

Unit Converter

CO2E CO2E RATE AREA ENERG >

Input: 4000

From: kWh/yr Elec - UK grid target

To: te/yr CO2

Answer: 0.4

Home elec @2030:
(100 g CO2/kWh)
~ 0.4 te/yr CO₂

Input: 6

From: mmscfd natural gas

To: te/yr CO2

Answer: 120925.95

6 mmscfd (typ. FPSO fuel gas)
~ 121,000 te/yr CO₂

Input: 50

From: mmscfd natural gas

To: te/yr CO2

Answer: 1007716.3

50 mmscfd (typ. field export / cont. flare)
~ 1 M te/yr CO₂



Summary + Closing Thoughts

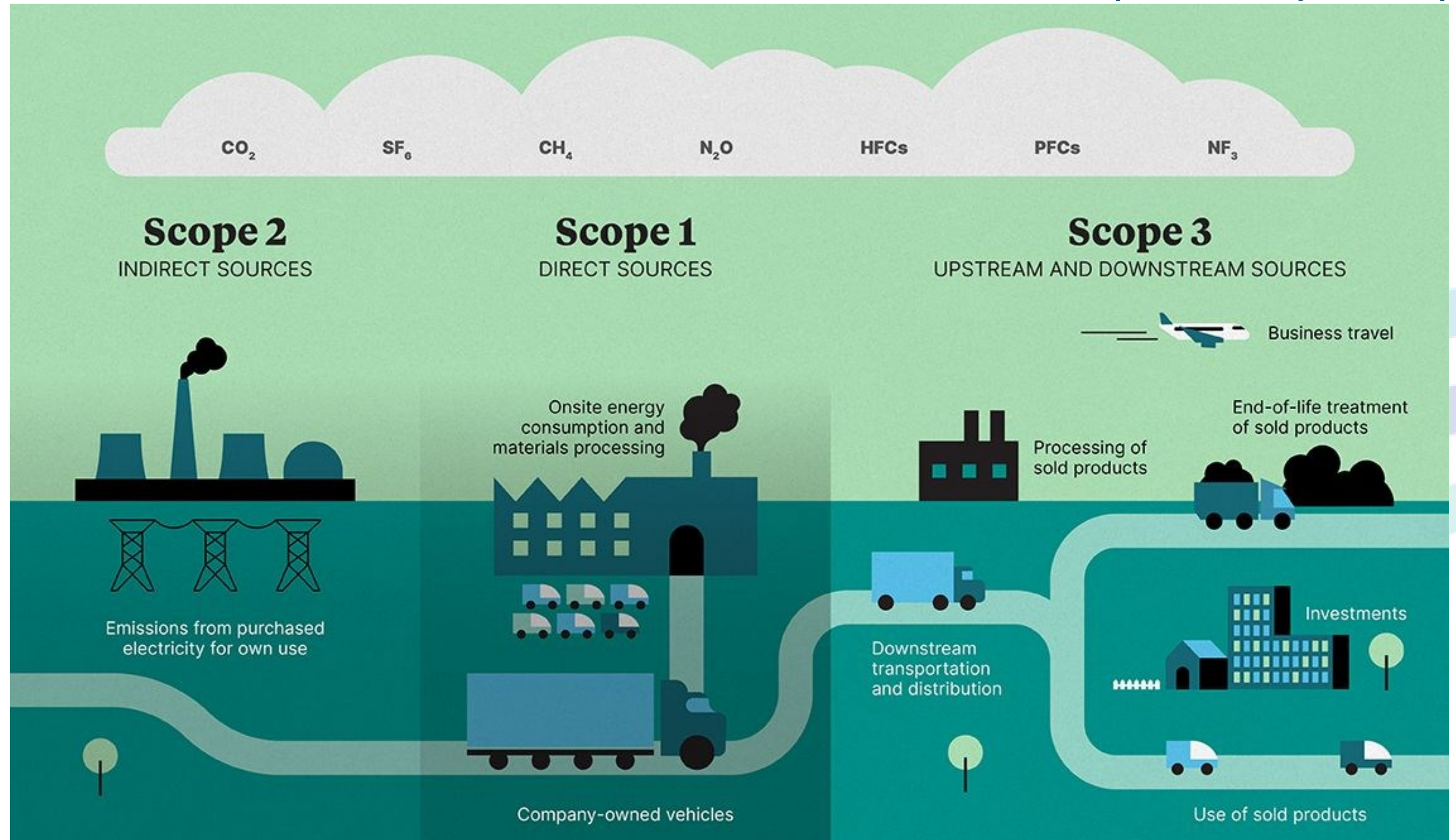
- **Inclusion of Scope 3 reveals true business impacts.** (and every activity + material has some kind of emission impact). For those committed to reducing negative impact there's help available in the way of web-based tools etc
- **Start with simple tools to quickly make sense of comparisons + take quick action** on transport/ supplies etc. Deal with complexity + detailed accounting later..
- **Measuring Scope 3 for a business gets increasingly complex** with scale of operations + supply chain. Even for seasoned energy professionals can be difficult to make sense of..
- **50 mmscfd gas = ~ 1 M te/yr CO₂.** If in the business of using/ supplying large volumes of oil & gas, not much scope for hiding the scale of this impact.
- **Offsetting should be treated with caution; it is relatively cheap (@ ~£9.45/te CO₂) once real actions exhausted – and offsetting residual business impact can also be a cost-effective way to fund CO₂-avoiding projects.**

BACKUP



Scopes 1,2,3 Pic

[credit: Oliver Wyman forum]



Managing Scope 3 Emissions – Company Challenges

“Managing and reducing Scope 3 emissions for a business can be challenging due to several reasons”:

- 1. Complexity and Scope:** Scope 3 emissions encompass a wide range of indirect emissions, including those from the entire value chain, such as suppliers, customers, and transportation. Tracking and measuring these emissions accurately can be complex and resource-intensive.
- 2. Data Availability and Quality:** Gathering data on emissions from suppliers and other stakeholders may be challenging, as they may not have the same level of commitment to sustainability reporting. Ensuring data quality and consistency can be a significant hurdle.
- 3. Supplier Engagement:** Encouraging suppliers to reduce their emissions can be difficult, especially if they are not as committed to sustainability goals. Developing collaborative relationships and incentives for emission reductions is essential.
- 4. Scope Definition:** Determining which emissions sources to include in Scope 3 can be subjective. Deciding what's material and relevant to the business can vary, and this can affect the reported emissions.
- 5. Technological Limitations:** Some industries may lack readily available technologies or alternatives to reduce emissions. Finding practical solutions in these cases can be challenging.
- 6. Cost Considerations:** Emission reduction initiatives often come with costs. Balancing environmental goals with financial constraints can be tricky for businesses, especially smaller ones.
- 7. Regulatory Uncertainty:** Evolving regulations and reporting requirements related to emissions can pose challenges for businesses. They must stay up-to-date and adapt their strategies accordingly.
- 8. Consumer and Stakeholder Expectations:** Meeting the increasing expectations of consumers, investors, and other stakeholders for sustainability can be demanding. Failing to meet these expectations can have reputational and financial consequences.
- 9. Long-Term Commitment:** Achieving meaningful emissions reductions can take time, and businesses must remain committed to sustainability goals over the long term, even when results may not be immediate.
- 10. Supply Chain Complexity:** In global supply chains, emissions can be dispersed across various regions and countries, each with its own regulations and challenges. Coordinating efforts across these complexities can be daunting.

“Successful management and reduction of Scope 3 emissions often require a holistic approach, collaboration with stakeholders, investment in data and technology, and a clear commitment to sustainability goals”. *[credit: ChatGPT]*

Managing Offsets – Company Challenges

“Offsetting scope 3 emissions for a business can be challenging due to several factors”:

- 1. Scope and Complexity:** Scope 3 emissions encompass a wide range of indirect emissions sources, from the entire value chain to employee commuting. Identifying, measuring, and managing all these sources can be complex.
- 2. Data Availability:** Gathering accurate data from suppliers and partners can be challenging. Many organizations lack visibility into their entire value chain, making it hard to quantify emissions accurately.
- 3. Costs:** Offset projects can be expensive, and the cost of offsetting scope 3 emissions can be substantial, especially for large businesses with extensive supply chains.
- 4. Offset Quality:** Ensuring the quality and effectiveness of offset projects is crucial. Some projects may not have the desired environmental impact, which raises questions about their legitimacy as offsets.
- 5. Rebound Effects:** There's a risk that offsetting emissions may lead to complacency within a business, reducing the incentive to reduce emissions at the source.
- 6. Regulatory Uncertainty:** The regulatory landscape for scope 3 emissions and offsets is still evolving in many regions. This uncertainty can make it challenging for businesses to plan and invest in offset strategies.
- 7. Stakeholder Expectations:** Meeting stakeholder expectations, including customers, investors, and employees, regarding emissions reduction and offsetting can be challenging, as expectations may vary widely.
- 8. Integration with Business Strategy:** Integrating scope 3 emissions reductions and offsetting into a company's broader sustainability and business strategy requires careful planning and alignment.
- 9. Technological Barriers:** In some cases, businesses may face technological barriers when trying to reduce emissions in their supply chain, such as the availability of low-carbon alternatives.
- 10. Behavioral Change:** Achieving emissions reductions often requires changes in behavior and practices throughout the value chain, which can be challenging to implement and sustain.

“To address these challenges, businesses must adopt a comprehensive and transparent approach to scope 3 emissions management, work collaboratively with suppliers and partners, and consider a mix of emissions reduction strategies and high-quality offset projects.”

[credit: ChatGPT]



EVERY B CORP
GOES BEYOND