REDUCING ENERGY, WATER CONSUMPTION AND WASTE IN TOURISM BUSINESSES – A PRACTICAL APPROACH

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Agenda

I. About the approach – what is carbon accounting?

II. Emission scopes

III. How does carbon accounting apply to tourism?

IV. Examples & case studies

V. How does this help manage energy, water and waste?

VI. What it can lead to

About the approach – what is carbon accounting?

- Methods used to measure how much greenhouse gases an **entity** emits

- Entity can be a large organisation, small business, country or individuals plus more

- Reported as "tonnes of carbon dioxide equivalent" (tCO2e)
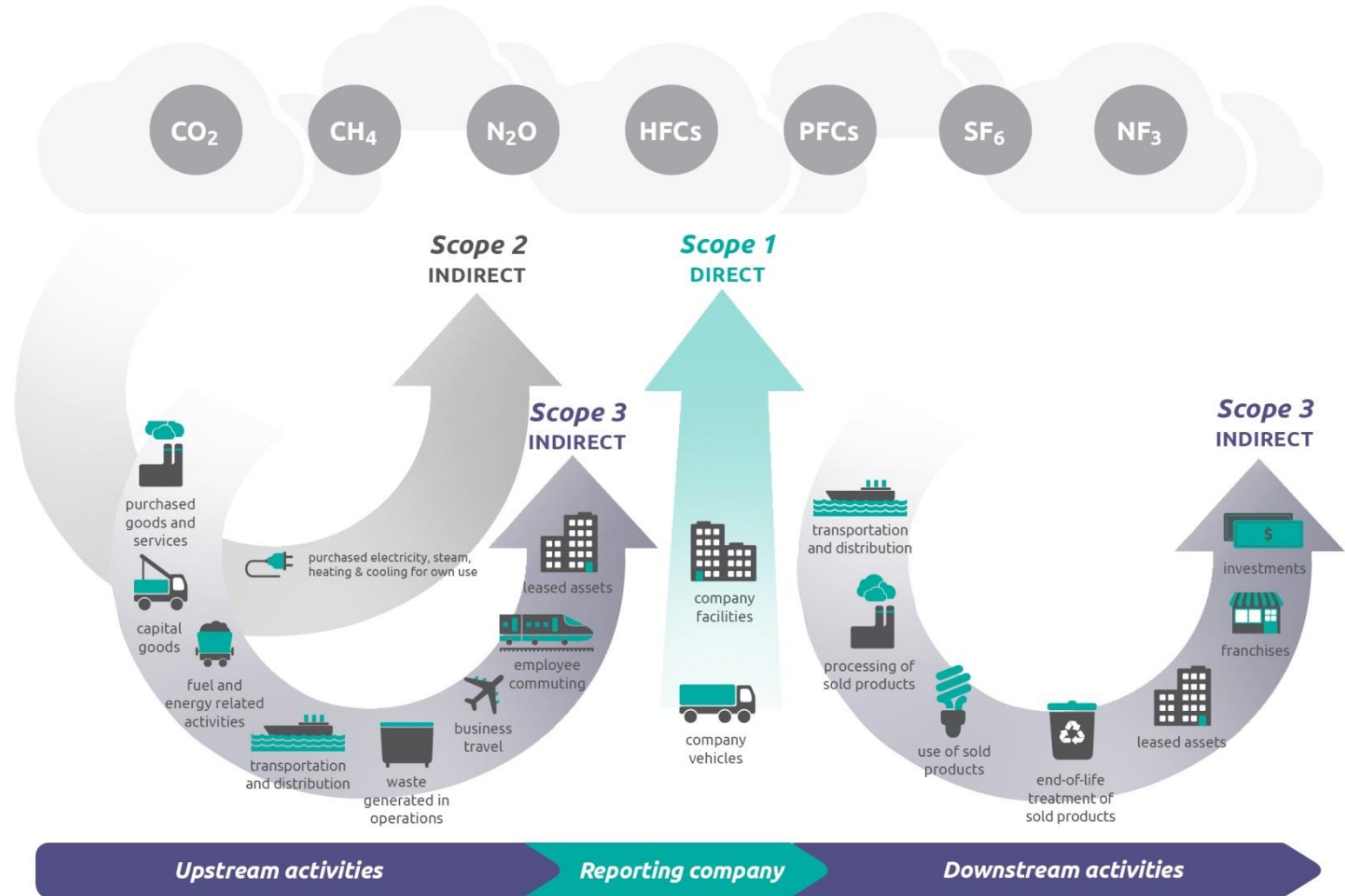
GREENHOUSE GAS PROTOCOL

WORLD RESOURCES INSTITUTE

World Business Council for Sustainable Development

"You can't manage what you don't measure"

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Emission Scopes

How we define/class emission sources in carbon accounting

Source: Global GHG Protocol - Corporate Value Chain (Scope 3) Accounting and Reporting

How does carbon accounting apply to tourism?

General

Boundary & Base Year Setting	Emission Source Identification	Data Collection	Emissions Calculations & Inventory Compilation

Tourism

Where are our offices? Where do our services run?	What kind of activities do we do?	What data points exist?	What are the calculated emissions for each activity?

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Emissions Sources – Tourism Service Examples
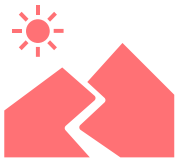
Tour operator

- Fuel used in vehicles to drive customers (scope 1)
- Electricity used in accommodation (scope 2)
- Waste generation on trips (scope 3)
- Flights within trip itineraries (scope 3)

Hotel

- Natural gas needed for heating rooms (scope 1)
- Fuel in vans to pick up customers to and from airport (scope 1)
- Electricity used in hotels (scope 2)
- Water used in hotel by patrons (scope 3)
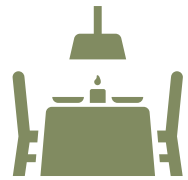- Waste generated in hotel (scope 3)

Restaurant

- Natural gas for cooking stovetops and heating restaurant (scope 1)
- Electricity used in restaurant and kitchen (scope 2)
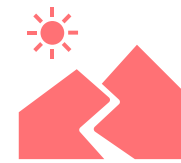- Waste generation from restaurant (especially food/organic waste) (scope 3)

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Case Studies

Restaurant/caterer

- Lebanese streetfood provider in Melbourne
- Small business
- Australia's first 100% renewable-run streetfood zero-carbon kitchen
- Climate Active carbon neutral certified in 2020
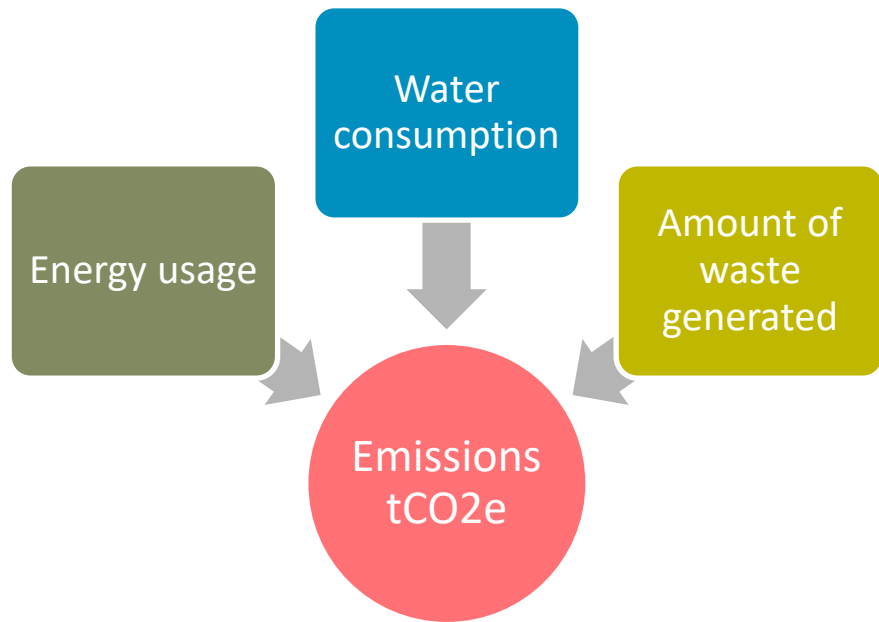
Tour operator

- Provider of global adventure travel experiences
- Large business
- Carbon neutral since 2010
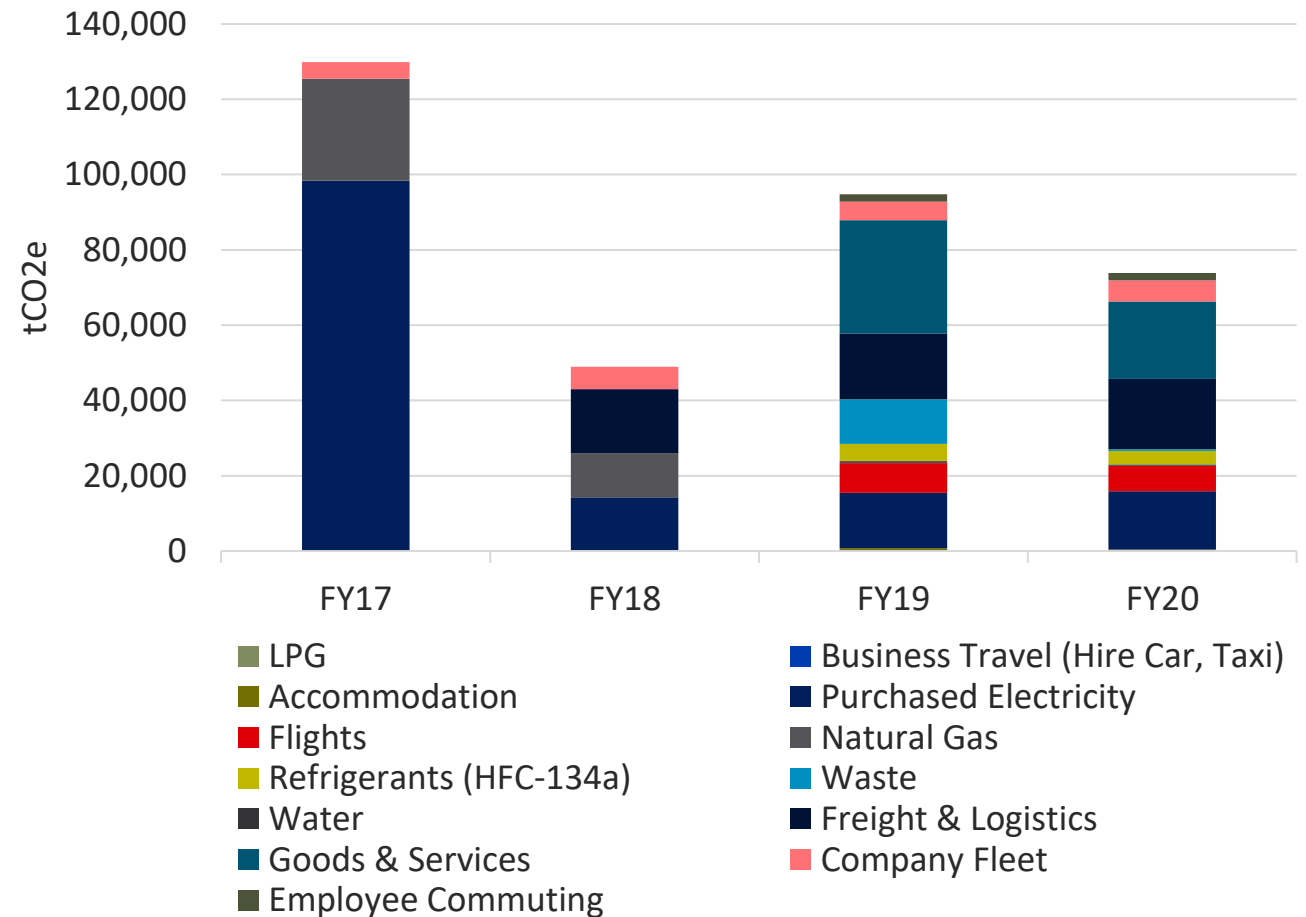- Has the world's first SBT for a tour operator

SMALL → LARGE

Same approach – different scale

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How does this help manage energy, water and waste?

Energy usage

Water consumption

Amount of waste generated

Emissions tCO2e

Example of Historical Emissions by Source

Legend:
- LPG
- Accommodation
- Flights
- Refrigerants (HFC-134a)
- Water
- Goods & Services
- Employee Commuting
- Business Travel (Hire Car, Taxi)
- Purchased Electricity
- Natural Gas
- Waste
- Freight & Logistics
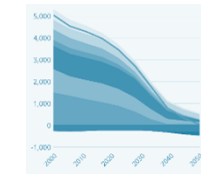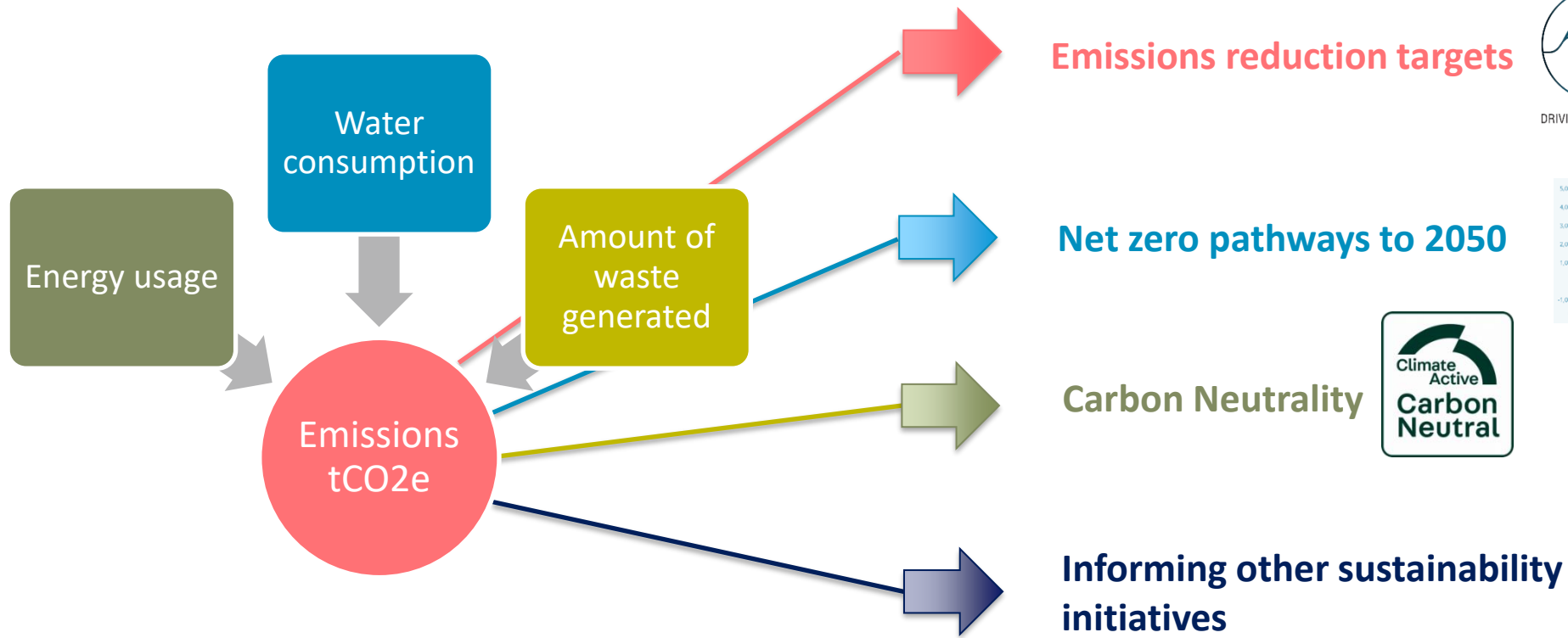- Company Fleet

What can it lead to?

Why in a nutshell

Good for the planet AND business too:

- Value differentiator
- Enhances reputation
- Efficiencies = reduced costs
- Staff satisfaction and retention

"70% of global travellers say they would be more likely to book accommodation knowing it was eco-friendly, whether they were looking for a sustainable stay or not"

"87% of Australians Want to Shop Ethically and Sustainably"

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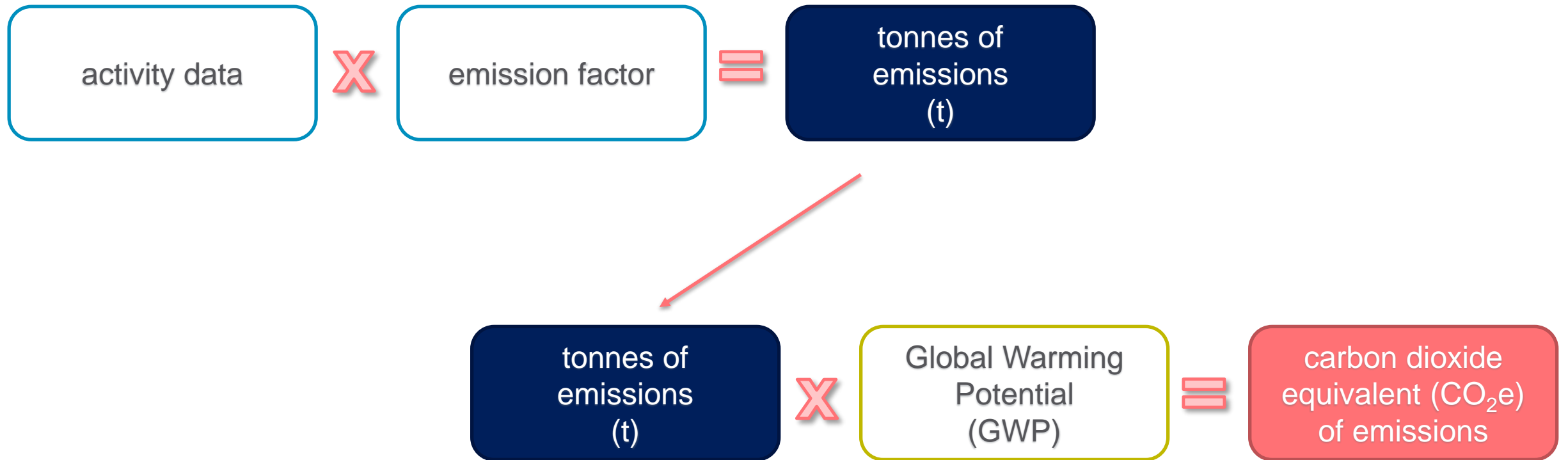# Thank you for your time.

Questions?

Links

1. GHG Protocol standards: https://ghgprotocol.org/standards

2. Science Based Targets Initiative: https://sciencebasedtargets.org/

3. Smoothing the way for small and medium-sized businesses to set science-based climate targets: https://sciencebasedtargets.org/blog/smoothing-the-way-for-small-and-medium-sized-businesses-to-set-science-based-climate-targets

4. The Australian Climate Active Carbon Neutral Standard and Certification: https://www.climateactive.org.au/

5. Intrepid Climate Active: https://www.climateactive.org.au/buy-climate-active/certified-members/intrepid-group

6. Atiyah Climate Active: https://www.climateactive.org.au/buy-climate-active/certified-members/atiyah

7. Ndevr Environmental: https://ndevrenvironmental.com.au/

8. A 10-step guide to decarbonising your travel business: https://www.intrepidtravel.com/adventures/decarbonise-travel/

9. *"87% of Australians Want to Shop Ethically and Sustainably"* https://thelatch.com.au/sustainable-shopping-australia/

10. *"70% of global travellers say they would be more likely to book accommodation knowing it was eco-friendly, whether they were looking for a sustainable stay or not"* https://www.gstcouncil.org/booking-com-sustainable-travel-report-2019/

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Estimating Emissions – the equations (detailed)

activity data **X** emission factor **=** tonnes of emissions (t)

tonnes of emissions (t) **X** Global Warming Potential (GWP) **=** carbon dioxide equivalent (CO_2e) of emissions

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Emissions Calculations – Examples of Data and EF

Activity data	**X**	Emission factor	**=**	Tonnes of emissions (t)
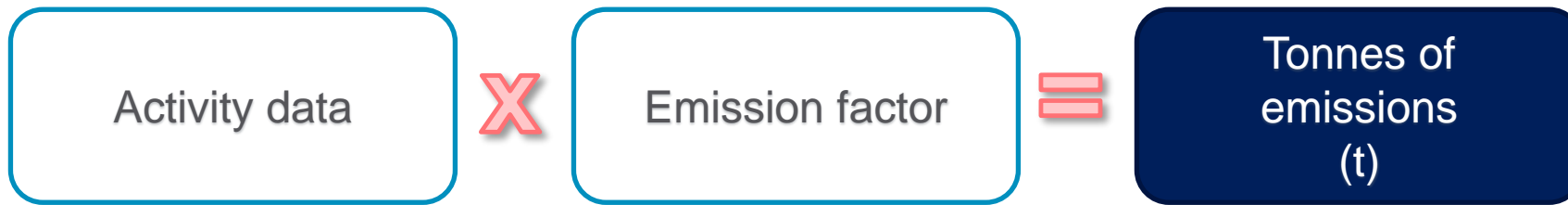
Activity data: data for an activity resulting in emissions

Examples:
- Electricity use (kWh)
- Distance travelled (kms)
- Gasoline use (kL)

Emission factors convert activity data to emission values

Examples:
- Kilograms of CO2e per kWh of electricity
- Kilograms of CO2e per air kilometre travelled
- Kilograms of CO2e per kilolitre of petrol/gasoline

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Thank you for the opportunity to connect.

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