

Inspiring business actions for managing carbon emissions

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Inspiring Action for a Better Environment

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Outline

1. Intro to Enviro-Mark Solutions and the carbon programmes
2. What are the measures of success?
3. How do the programmes work?
4. What's covered and what's not covered?
5. Where can businesses have the biggest reductions?
6. Summary



Introduction to Enviro-Mark Solutions



Operate the carbonZero and CEMARS certification programmes

- Organisations
- Products and services



World's first to be accredited under ISO 14065.. Accreditation is the third-party endorsement of our competence to issue certification. Certification marks are recognised in over 60 countries through the International Accreditation Forum (IAF).



Developed by NZ Crown Research Institute, Manaaki Whenua Landcare Research - who have a track record of over 15 years experience in GHG measurement and carbon monitoring



Accredited as a suitable standard for verification of greenhouse gas information. Organisations who report into CDP earn 10-15% more points if they hold CEMARS certification. Also accredited as a CDP Silver Climate Change Verification Partner for providing independent verification and certification services.



Recognised by the New Zealand Green Building Council's Green Star programme under the materials category of the rating tool. This aims to address the consumption of resources used in building construction by encouraging the selection of lower impact materials.



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Introduction to Enviro-Mark Solutions



Provide support services for setting Science Based Targets



Achilles Group Limited – our license partner offering CEMARS certification in the UK. Achilles provides a range of supplier management services to improve the efficiency of the procurement. Our partnership adds greenhouse gas measurement, management and certification to their portfolio of services.



Recognised partner to assist organisations in becoming Climate Neutral Now by measuring, reducing and offsetting their climate impacts. We are also a signatory of the UNFCCC initiative for our own operations.



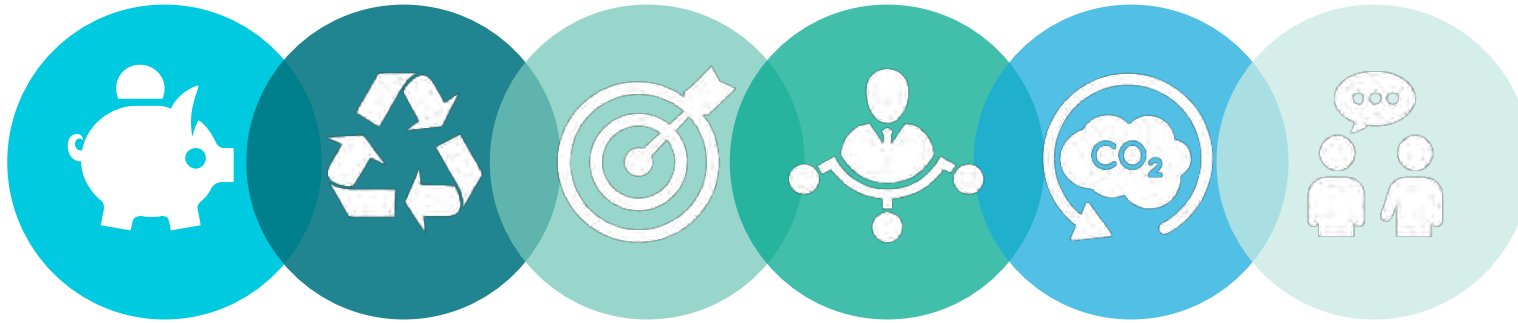
Enviro-Mark Solutions is a member of the following organisations: Sustainable Business Council, Sustainable Business Network, NZ Green Building Council, Japan New Zealand Business Council, Auckland Chamber of Commerce



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What are the measures of success?

How are they tracked?



01 Save Money

02 Reduce our overall impacts

07 Legislative compliance

10 Reputational advantage

03 Increase brand value

04 Improve stakeholder relations

08 Meet tender requirements

11 Make claims with credibility and confidence

05 Save emissions

06 Enhance staff culture

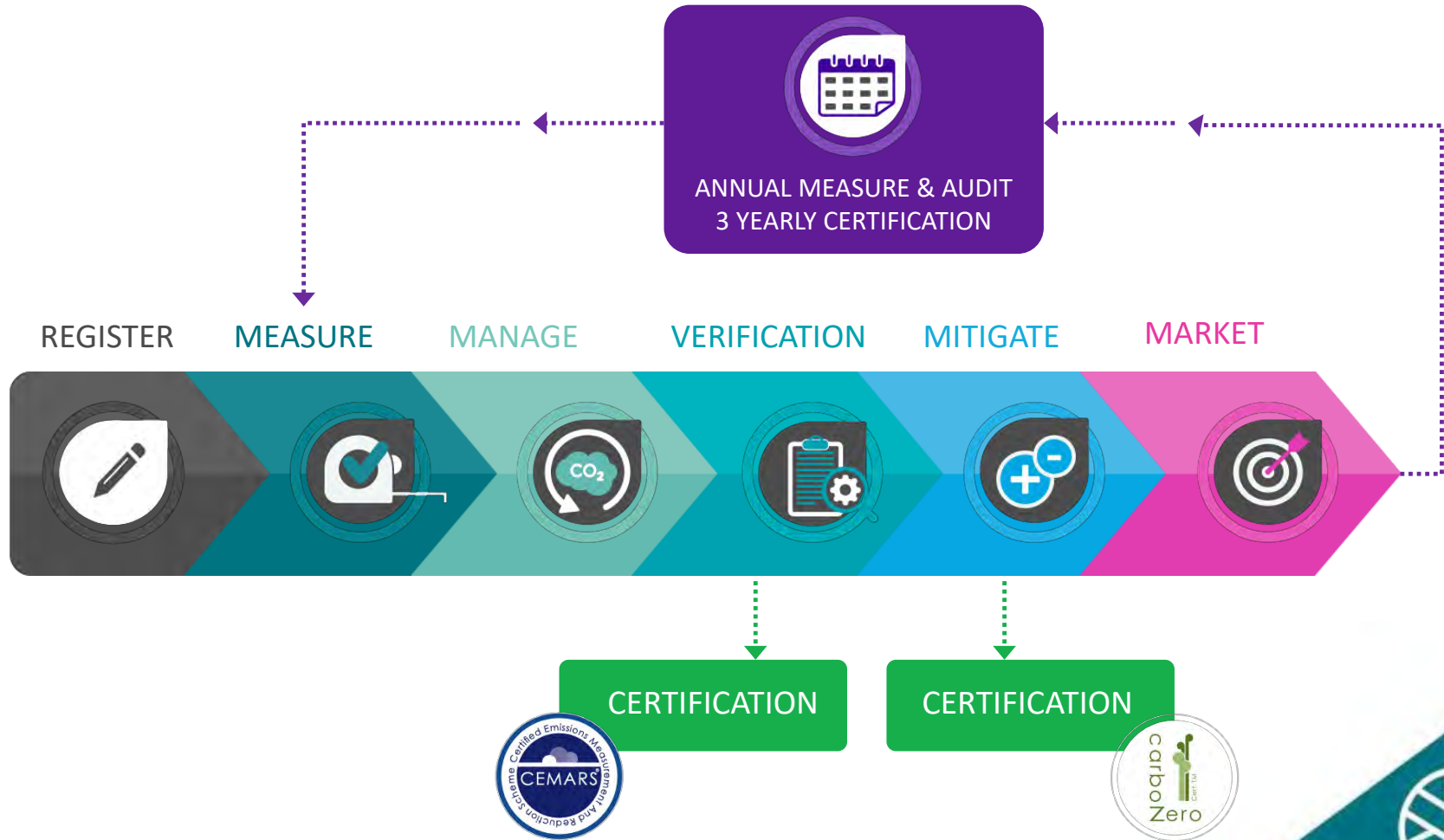
09 “Right thing to do”

12 Anticipate and manage risks



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How do the programmes work?



How do the programmes work?



Measure

- 1 Prepare a project plan and team if required
- 2 Set the base year and reporting period for the inventory
- 3 Set organisational boundaries
- 4 Set operational boundaries, identify emissions sources and set scopes
- 5 Collect and enter emissions source data into the calculation software
- 6 Complete the Emissions Inventory Report (EIR) (on the software)



Manage

- 8 Identify significant emissions and reduction opportunities
- 9 Set reduction targets
- 10 Complete the Emissions Management and Reduction Plan (EMRP)(on the software)



Mitigate

- 14 Confirm cancellation of appropriate number of carbon credits for offsetting the emissions balance



Verification

- 11 Undergo verification audit
- 12 Respond to audit findings
- 13 Independent review and issue of certificate and logos

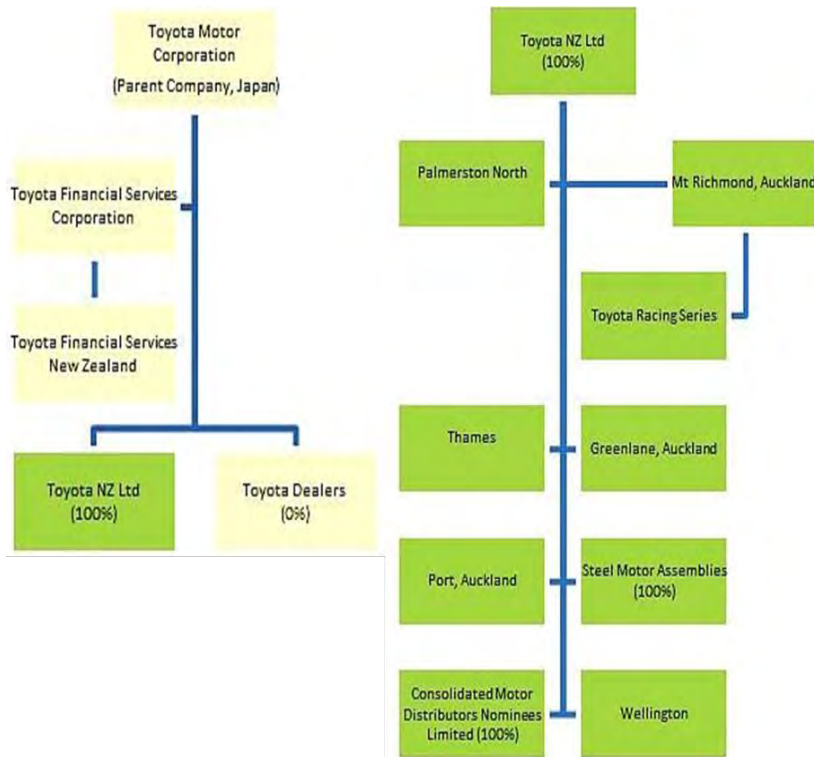


Market

- 15 Follow up with programme marketing support



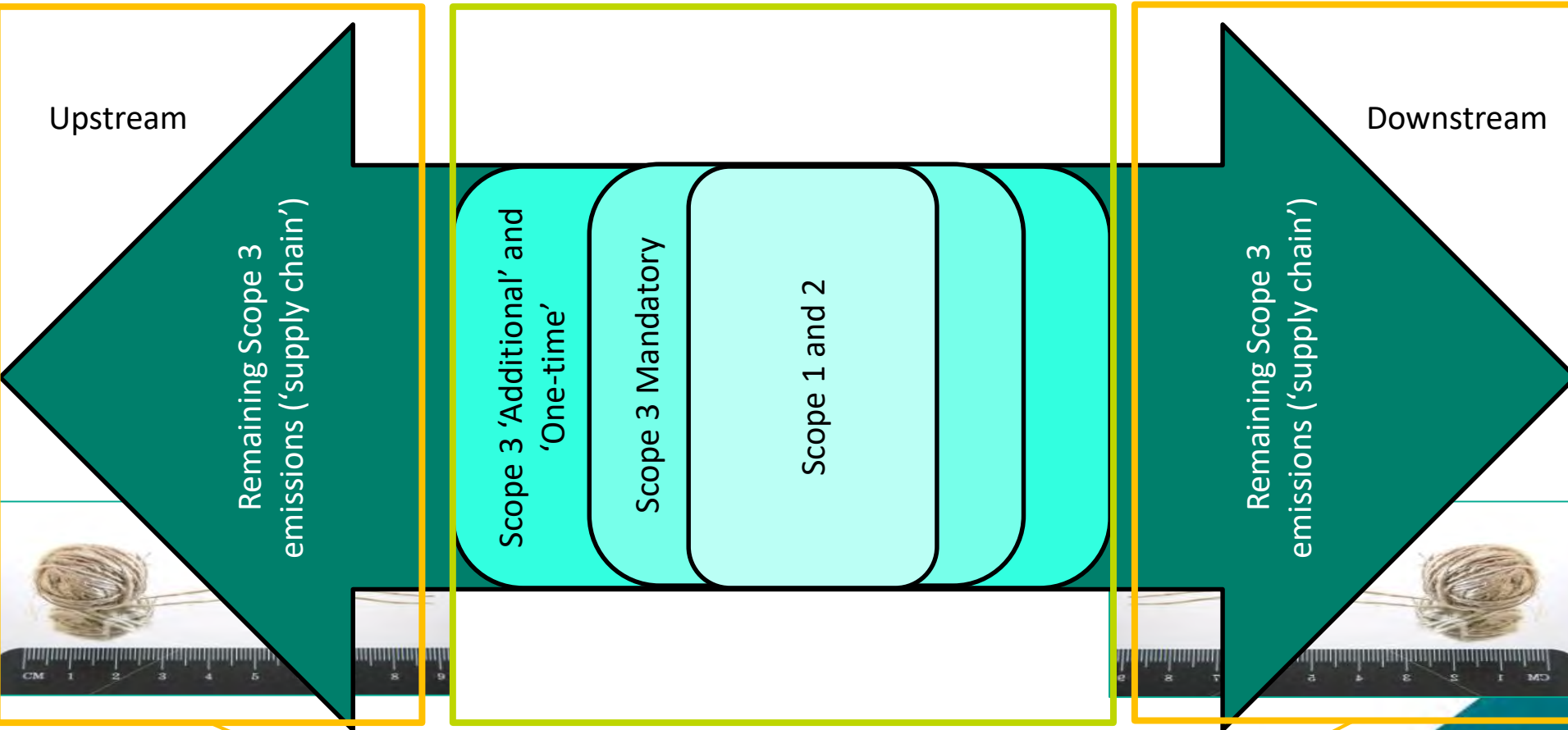
What's covered and not covered?



- Map out organisation in a legal entity chart
- Identify ownership and operational control status
- Establish boundary of inventory
- Consider reporting units to be used for emissions – may be different to existing organisation charts

Example organisation boundary

What's covered and not covered?



Covered in carbon programmes

Not covered in programmes

What's covered and not covered?

Mandatory Scope 3 emissions:



Freight/couriers*



Waste to landfill



Business travel – taxis, air, staff mileage claims

+ Sector specific emissions sources if applicable

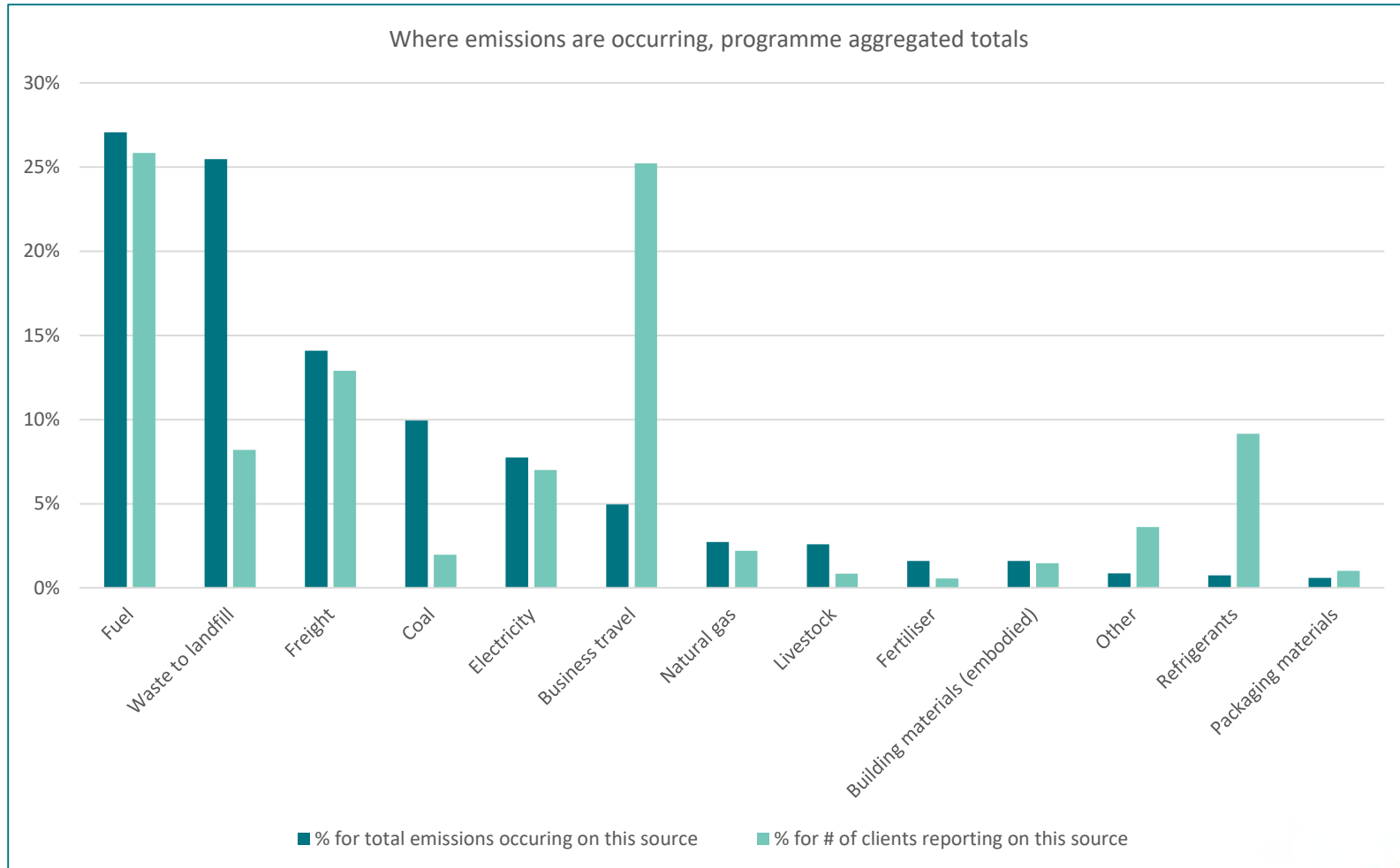
- Identify all activities that might have emissions associated with them
- Identify emission sources by scope:
 - **Scope 1 direct**
 - **Scope 2 indirect purchased heat, steam, electricity**
 - **Scope 3 mandatory**
 - (optional) Scope 3 additional
 - (optional) Scope 3 one time

Guidance on including Scope 3 additional emissions:

Ability to influence - Significance of emissions - Importance to stakeholders – Risk exposure – outsourced activities previously performed in-house – Sector guidance - Other



Where can businesses have the greatest reductions?



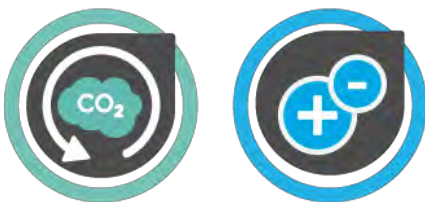
Where can businesses have the greatest reductions?

Develop a plan:

- Identify significant emissions
 - Identify opportunities:
 - Behavioural
 - Operational
 - Investment
 - Set targets
-
- Responsibilities
 - Timeframes/milestones
 - Management commitment

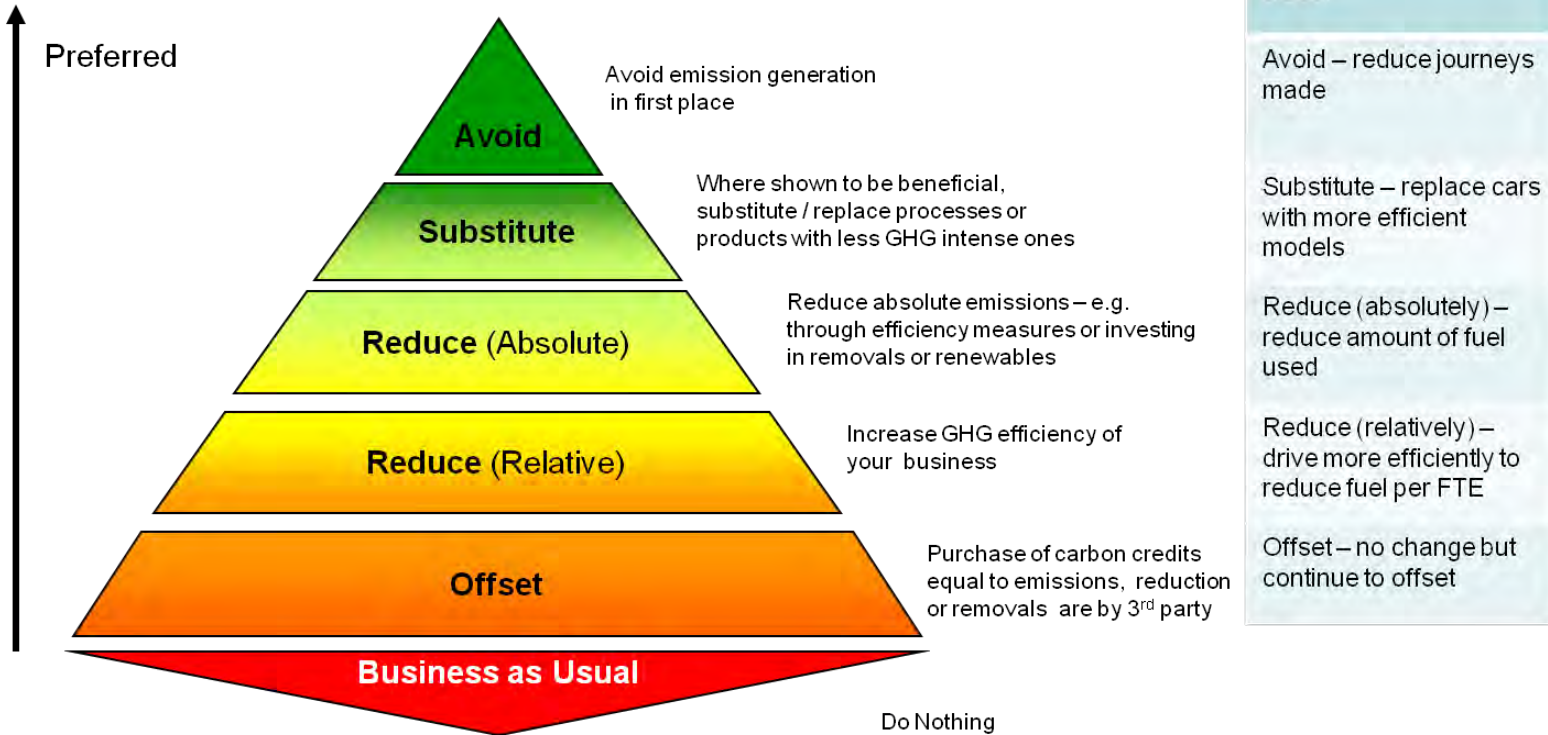
Things to consider:

- Industry best practice
- Focus on the biggest opportunities and biggest emission sources
- Level of control
- Emissions in relation to business activity KPIs
- Resources available to commit - \$ and time
- Payback periods, Capital costs
- Improving source data quality



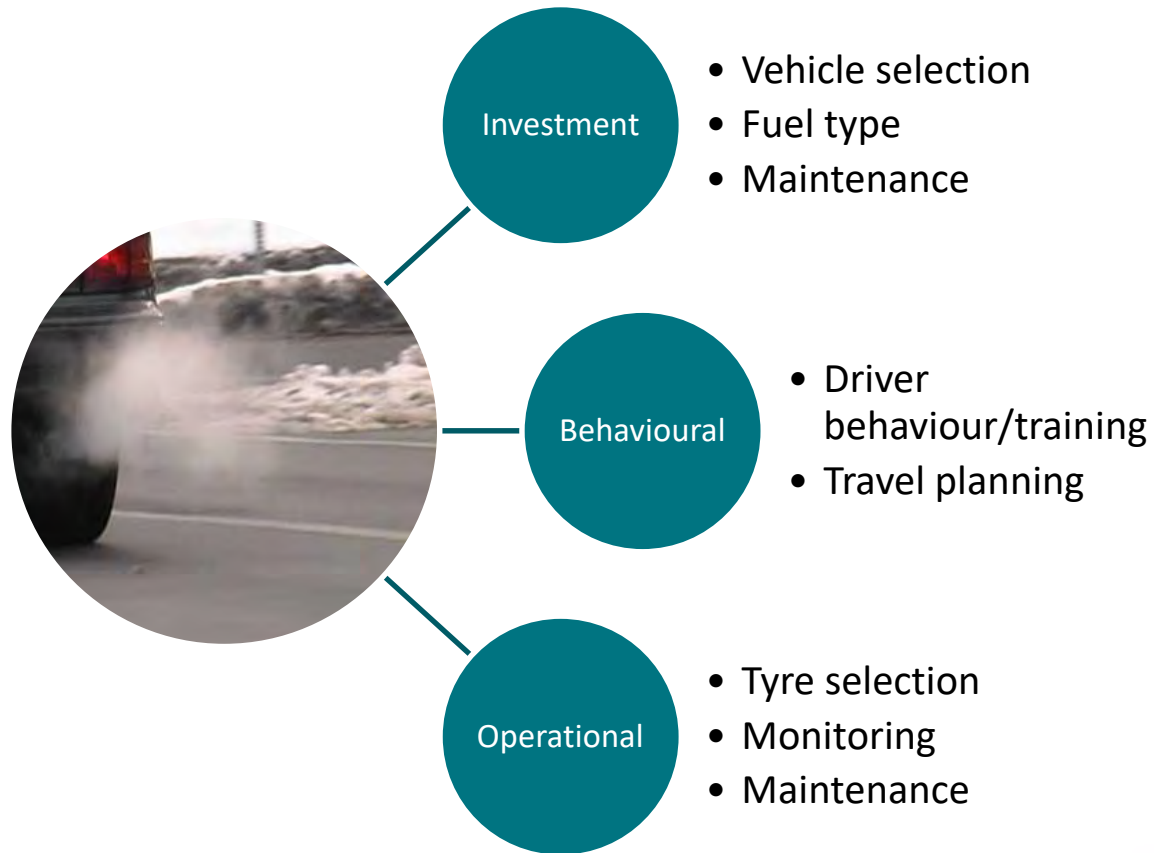
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Identifying opportunities: the hierarchy



Note: There may be situations where investment in actions undertaken by a third party may be more effective than direct action because the action involves reduction of a potent GHG or enhancement of a critical ecosystem.

Transport



Examples of what other clients are doing

Replace existing cars with **more low carbon options, such as EVs**

Hold more 'virtual meetings' through **phone or video conferencing to avoid** vehicle use

Increase volume size of consignments being **delivered**

Investigate Fleet Check **vehicle audit grants** if appropriate

Investigate use of **CRM and GPS** to determine **cycle of customer visits**



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Managing transport, resources

Resource	Description
Biofuel options	Information on biofuel options
EECA: Energywise tyres programme	Information on tyre selection for fuel efficiency. Includes a fuel saving calculator tool. Estimated savings from having Fuel Efficient tyres are 7.5% reduction (lower for electric or hybrids)
EECA: Vehicle total cost of ownership tool	Tool for comparing costs between electric vehicles and conventional petrol and diesel vehicles
EECA: Fuel efficiency and engine sizing tools	Fuel efficiency comparison tools and an engine sizing guide for anticipated average passenger loadings
EECA: heavy vehicles	Fuel efficiency workshops: Fuel management reviews Fuel management advisor training
EECA: light vehicles	Advice on purchasing new vehicles and driver training
Vehicle fuel economy labels	Vehicle fuel efficiency. Vehicle fuel economy labels give you the power to factor efficiency and running costs into the equation when you choose a car
Optifleet	Vehicle fuel efficiency - fleet management services
Biofuel options - availability - New Zealand	Biofuel is available at some Gull Stations in Auckland. Z energy is planning to introduce a B5 Blend in the Auckland region. Green Fuels sells Biogold biodiesel in the Christchurch area - currently via delivery in bulk for customers with on-site tanks.
Driving efficiently	Tips for good driving habits
Biofuel vehicle compatibility - New Zealand	Information on Biofuels and also a handy list of Biofuel compatible cars
Mevo (car sharing scheme)	Mevo is an electric car share scheme in Wellington

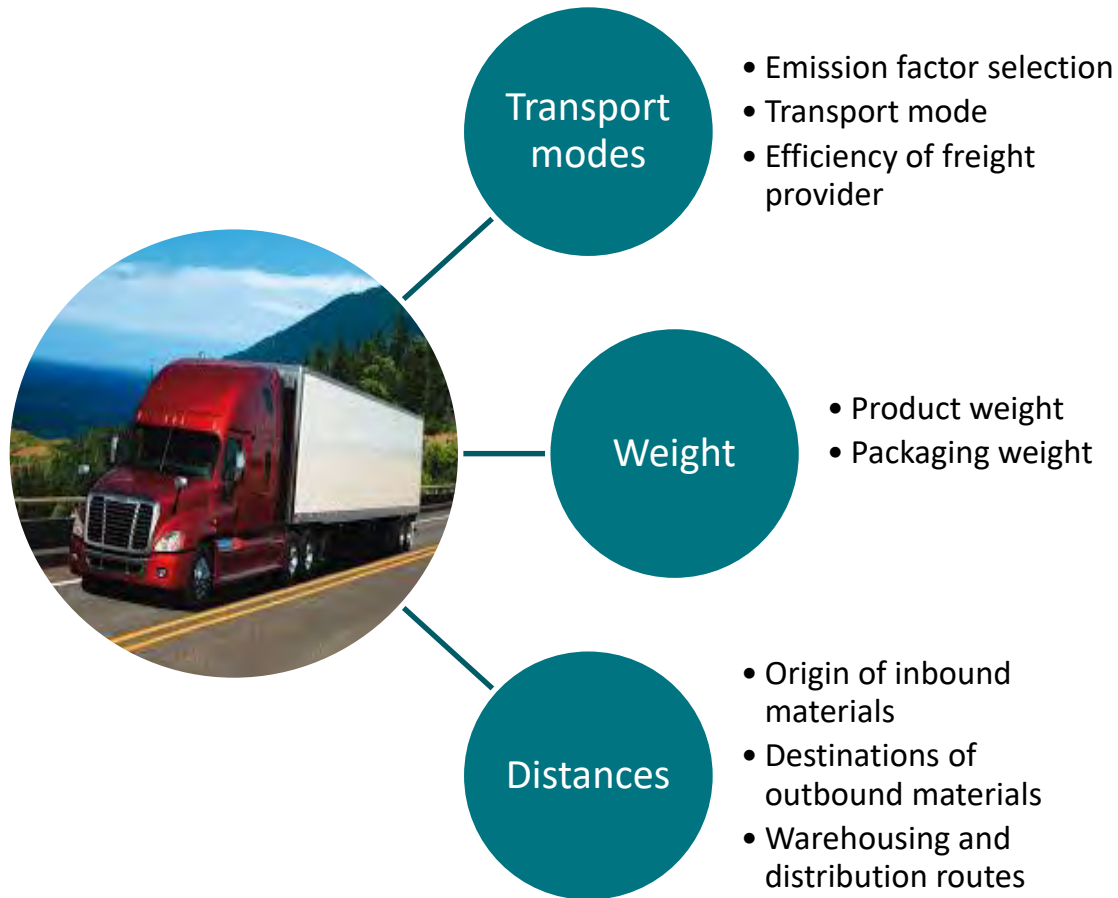


Managing waste, resources

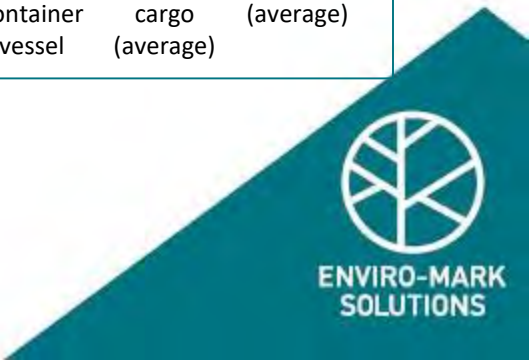
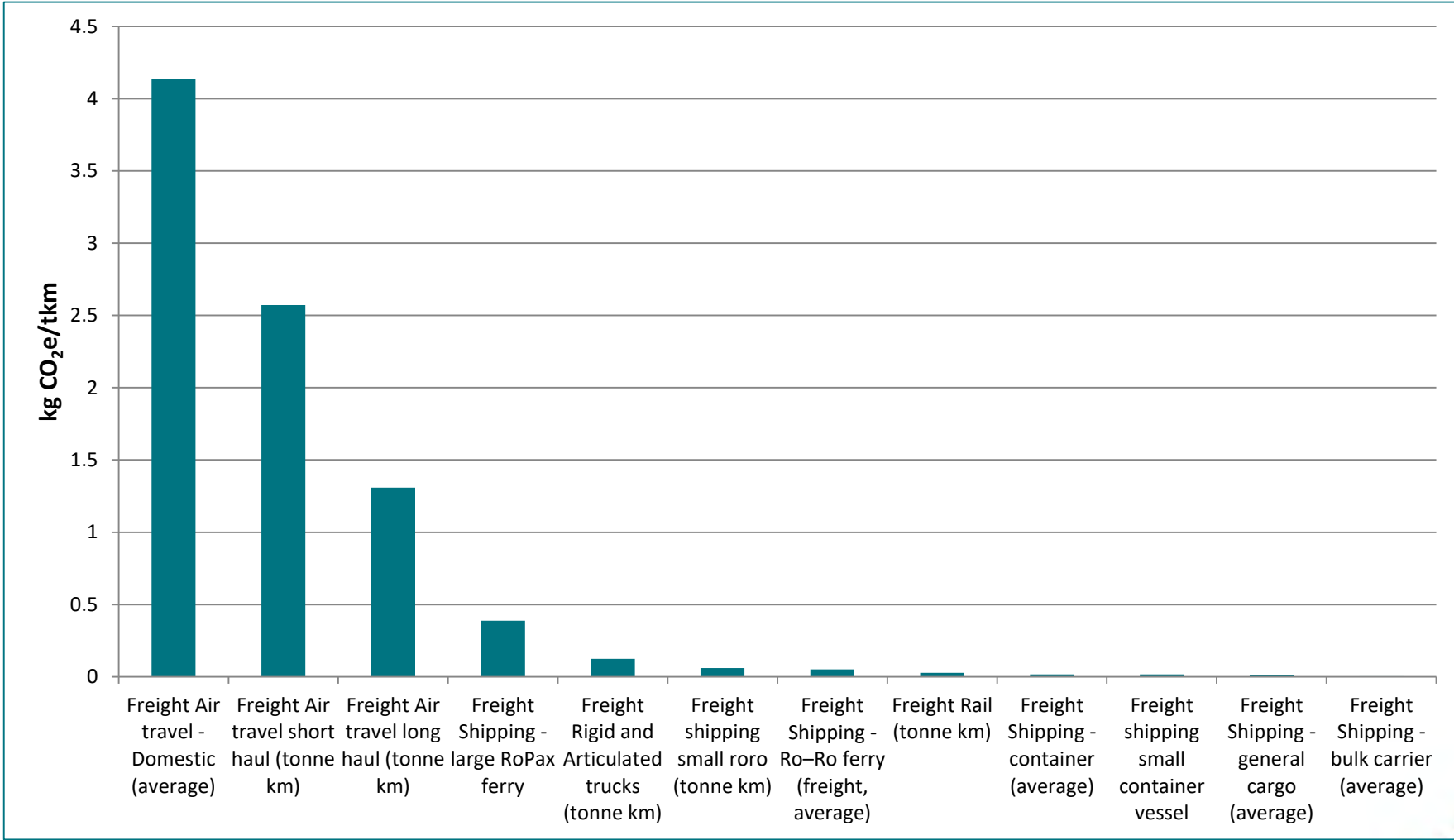
Resource	Description
Low Impact Limited	Providers of 'hungry bins', is a fast and convenient way to compost your food scraps, scalable for business use.
Recycling symbols	This link provides standard recycling symbols for different waste streams
Recycling directory	Directory of recycling operators (Christchurch based but may be applicable to other areas)
Recycling directory	Directory of recycling operators (Auckland based but may be applicable to other areas)
Renew Waste Exchange	Information exchange designed to help your business find markets for your industrial by-products, surplus materials and waste. Renew serves businesses in the Auckland Region only.
Waste audit guide	Guide on how to conduct waste audits
Zero waste guide (Sustainable Business Council)	A general guide on minimising solid waste from your organisation
Waste minimisation seed funding, Wellington	This fund supports development of innovative solutions for reducing waste. Funding will be allocated in order of priority according to the waste hierarchy: <ul style="list-style-type: none"> • Minimisation / avoidance / reduction of waste creation • Reuse of waste materials • Recycling of waste materials • Recovery of waste resource
Waste Management in Hospitals	Provided by Healthcare Without Harm, this site provides information on waste treatment options, and case studies
3R Group	3 R Group Limited (3R) develops programmes to help consumers and business to recycle or responsibly dispose of used products and packaging. From businesses with a specific waste issue to industry wide projects looking at the full product life cycle we are experts in product stewardship solutions. We combine imagination and science to repurpose waste!



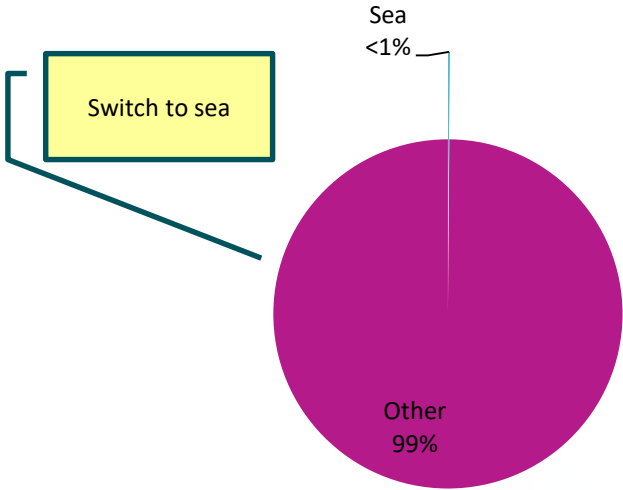
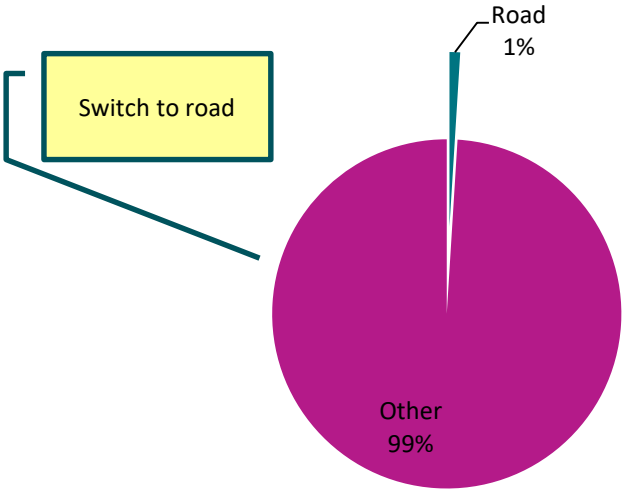
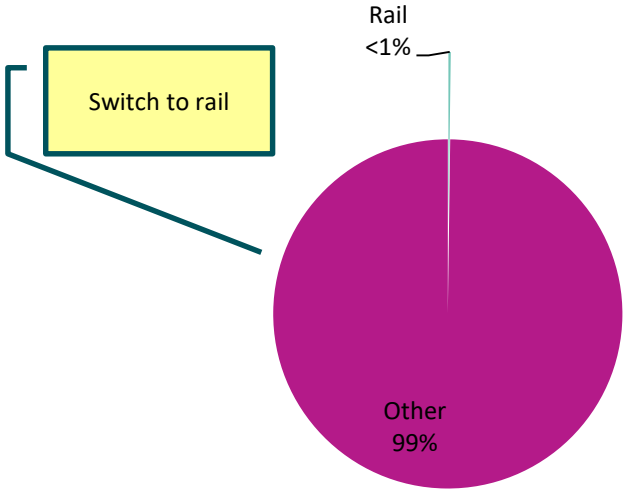
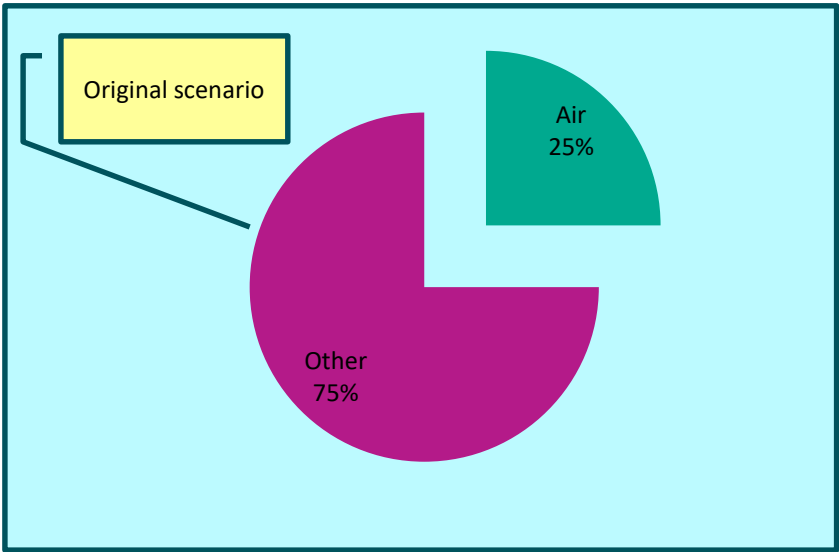
Freight



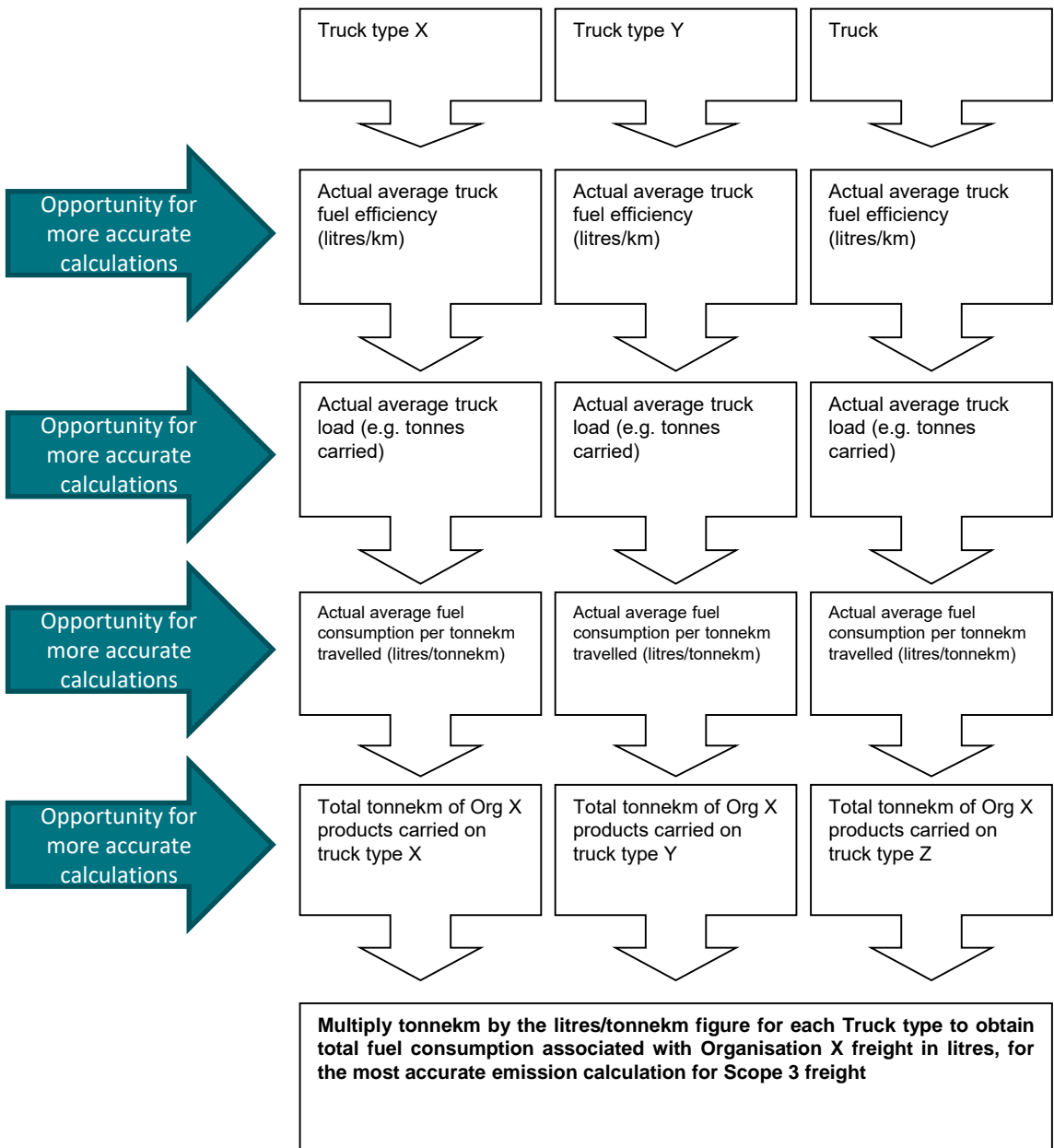
Emission factor selection and transport mode



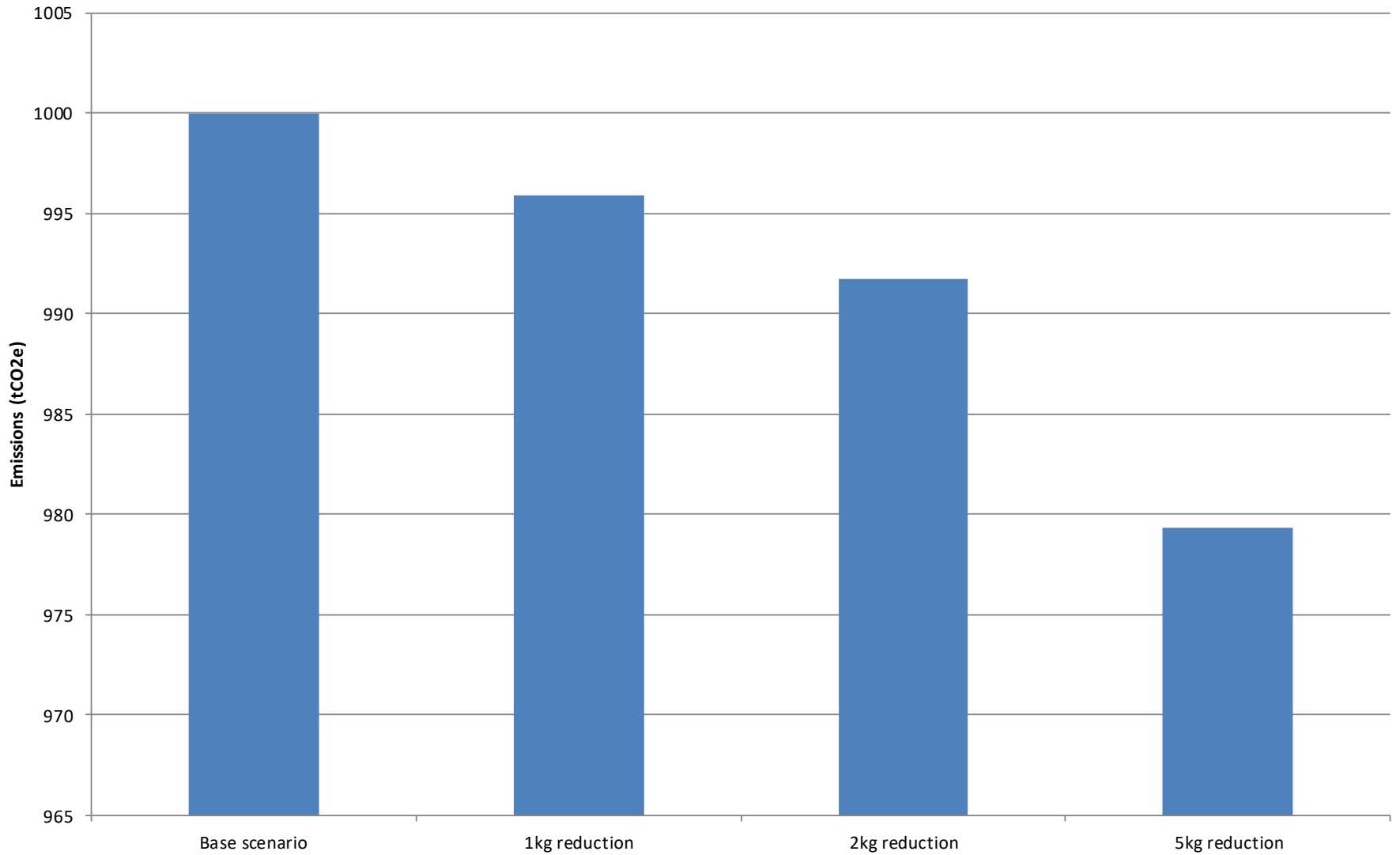
Example scenario re changing transport mode



Efficiency of freight provider, supplier specific factors



Example scenario - reducing product/packaging weights



Product weight example

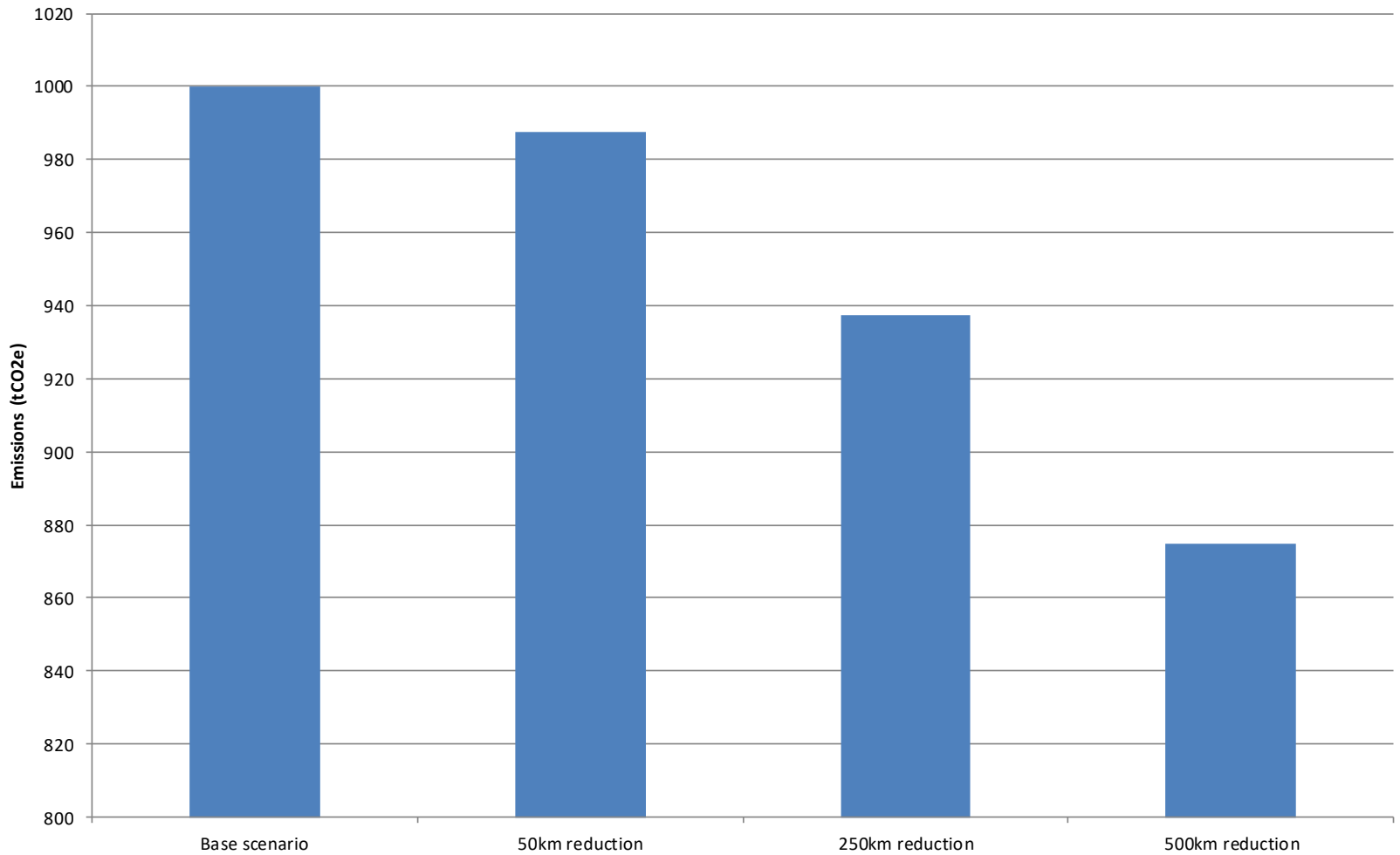
Average glass weight used for Yealands branded products over the years has reduced from 528g (in financial year 2010) to 468g (financial year 2012). This has resulted in a 11.5% reduction in carbon from glass emissions and a 11.5% reduction in carbon from transport emissions to customers...”*



*<http://www.yealands.co.nz/pages/yealands-estate/carbonzero>



Example scenario - reducing freight distances



Warehousing and distribution routes example

*“Carbon consciousness in action: ‘Port of Project’ Prior to its carboNZero certification, imports of carpet and vinyl had been delivered to INZIDE Commercial’s Auckland warehouse, and then shipped to other centres around NZ as needed. The aim had been to ensure full container loads to optimise freight economies. The requirement to manage, reduce and offset carbon emissions challenged and ultimately changed this thinking. INZIDE Commercial now requires imports to be shipped directly, for example from Thailand or Australia, to the port nearest their end-use. This means that sometimes the company only partly fills a container, with marginally higher freight costs by volume of product; however this saves carbon previously lost as a result of everything being shipped via Auckland. And the new arrangements also save freight and storage costs by going directly to their final destination – an annual saving at 2010 rates of \$80,000.”**



INZIDE
commercial

*http://www.carbonzero.co.nz/why/documents/interfacenz_case_study.pdf

Examples of what other clients are doing

Ensure the **closest port** is always used for inbound and outbound shipments

Reassess main port of entry

Use **lightweight** bottles and **packaging**

Improved **procurement planning**, allowing lead time for sea freight of inwards goods (as opposed to air freight.)

Large customer projects to have stock freighted **direct to the closest port of the customer** (as opposed to coming to a central warehouse first)

Convert selected clients to sea freight. Avoid unnecessary air freight by increased lead time planning.

Forward planning to reduce last minute air freight

Ensure freight provider is optimising use of **rail freight** where possible



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Internal promotion

Your own staff are your biggest ambassadors and will also be your biggest agents for change and emission reductions.

Here are a number of ways that you can include them in your newest strategic direction:

- Internal staff communications – news letters, blogs and signage, staff inductions
- Communicate emission reduction targets – highlight how staff can help
- Proactively ask for staff reduction suggestions – they will know!
- Give staff key talking points so they will promote your achievements to stakeholders

“ Over one year staff suggested projects saved over one megawatt of electrical demand, the equivalent of £600,000 around two percent of energy used ”

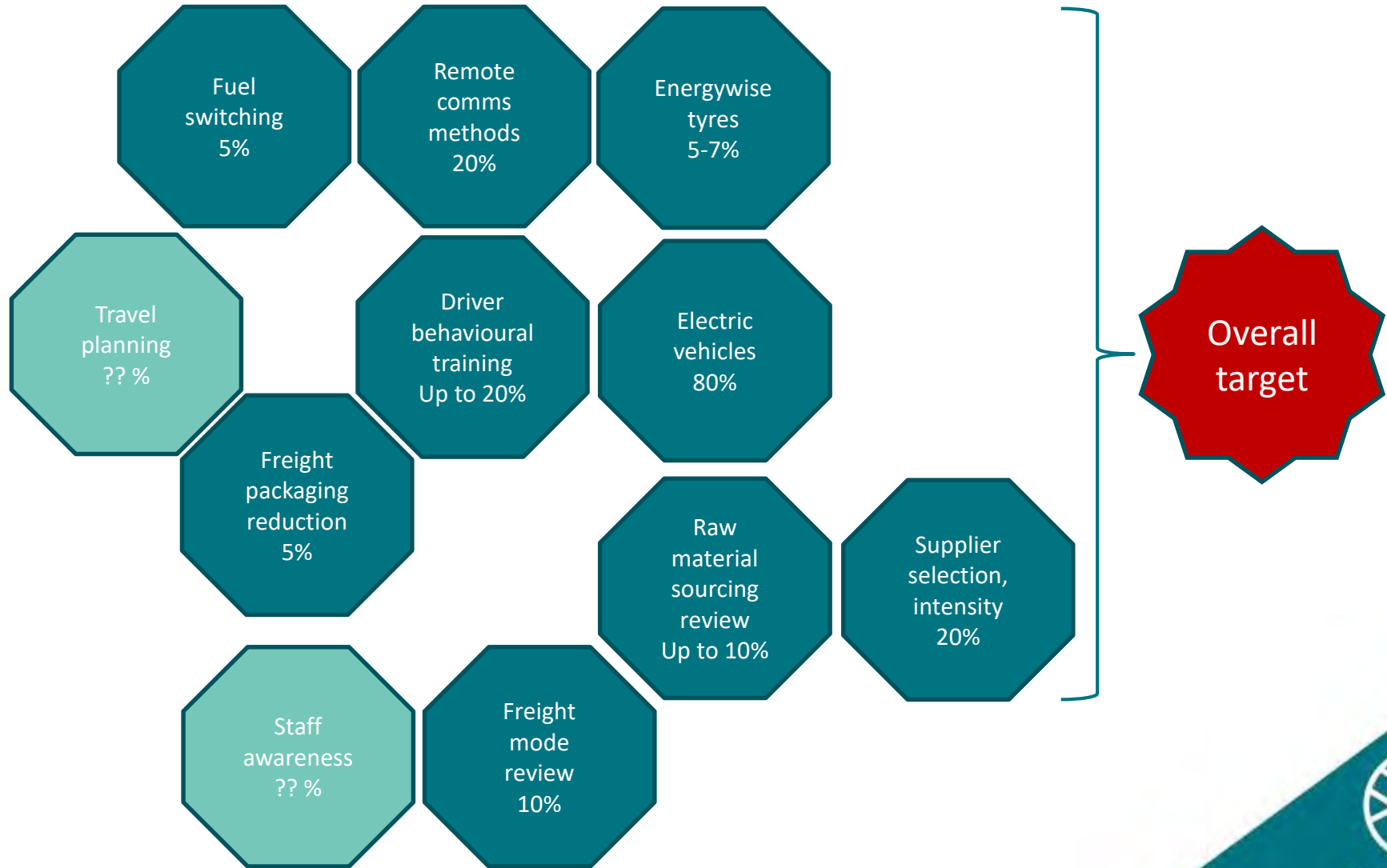


DAVID ROSE, SOUTH WEST WATER, CARBON
MANAGER

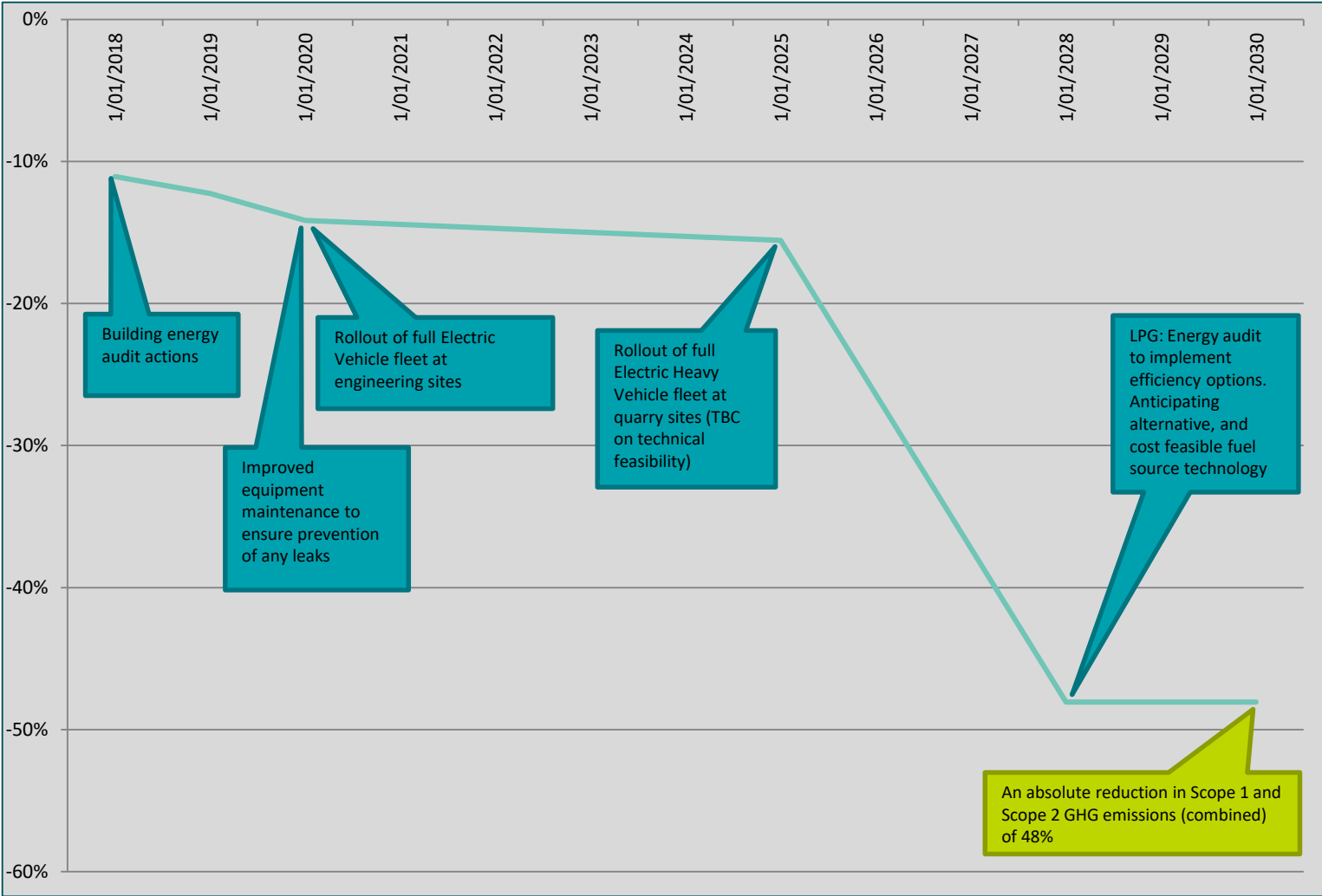


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Aggregating up the subtargets and producing a reduction pathway



Aggregating up the subtargets and producing a reduction pathway



What are Science Based Targets?



A Science Based Target means that it is in line with the level of decarbonization required to keep global temperature increase below 2 degrees

Companies can get their targets validated the Science Based Targets Initiative

The partners behind the initiative:



WORLD
RESOURCES
INSTITUTE



Companies should set ambitious targets that demonstrate sector leadership



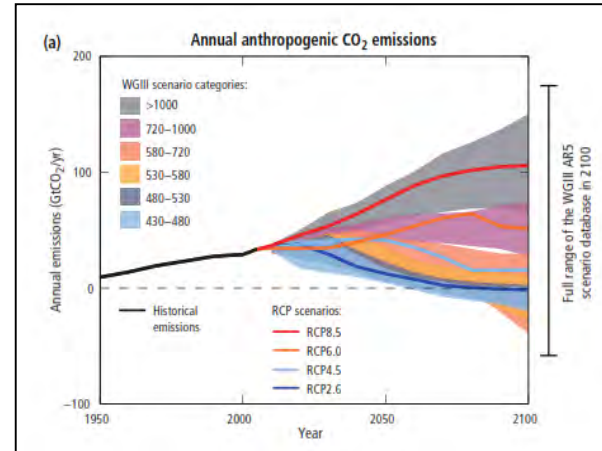
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What are Science Based Targets – key principles

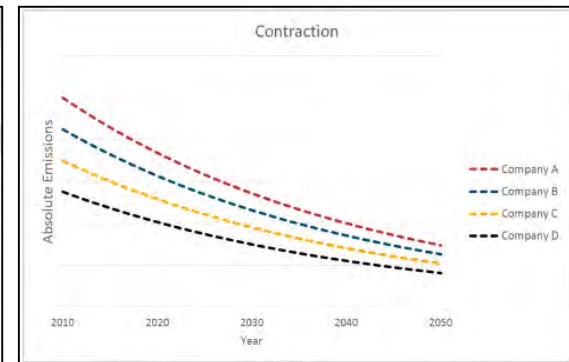
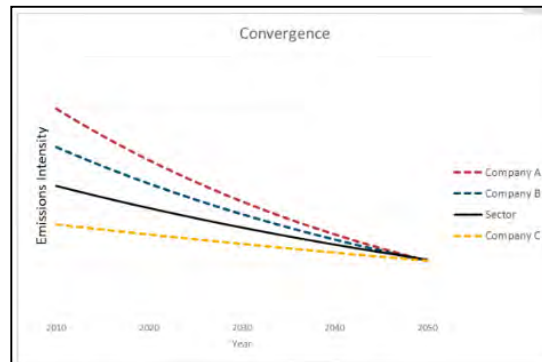


1. Carbon budget: to remain within 2 degrees temperature rise, the remaining global carbon budget is 700GtCO₂e (from 2017 onwards)*

2. Emissions scenario: Recommended scenario is IPCC 5AR RCP 2.6 which computes to -41 to 72% reduction required by 2050



3. Allocation approach: refers to the way the carbon budget is allocated amongst companies such as by region, sector or globally.



Summary

- Main emissions sources from Fuel, waste, freight, stationary energy.
- Reduction options vary depending on business context – behavioural, operational, investment
- Reduction pathways established by estimating sublevel targets
- Science Based Targets are a useful initiative

