

Scope 3 Roadmap

Practical Steps to Address
Scope 3 Emissions –
Written by CEOs for CEOs

November 2022



The Climate Leaders Coalition acknowledges and pays our respects to Aboriginal and Torres Strait Islander peoples as the First Peoples of Australia, whose ancestral lands and waters we work and live on. We honour the wisdom of and pay respect to Elders past and present and acknowledge the cultural authority of all Aboriginal and Torres Strait Islander peoples across Australia.

Foreword

Each year, in line with our purpose of sharing knowledge, testing, learning and ultimately accelerating the decarbonisation of our 48 coalition member organisations, we commit to one common goal. In 2022, we focused on what practical actions it will take to reduce scope 3 greenhouse gas (GHG) emissions across value chains.

Why is this important? Because stakeholders and investors are demanding it, because CEOs want to support the achievement of global net zero, because pressure is mounting from consumers and regulators, and because, done swiftly, addressing scope 3 emissions can lead to competitive advantage. Importantly, as Australian and global business leaders, our CEOs are committed to leading solutions to decarbonisation and action on climate change.

Addressing scope 3 emissions is not easy, nor does it happen overnight. It requires the foresight to work outside traditional value chains and build new relationships with suppliers, customers, government and each other. It requires courage to embrace transparency and new commercial models.

When we started this project in late 2021, we had little experience of working together with value chains in such an open, transparent and collaborative way. In those early stages, our thinking, like that of many others, was that data and measurement would be the biggest challenge.

Our work over the last 12 months has shown that data is just the beginning.

We have developed this scope 3 roadmap through five proofs of concept across a range of sectors.

Many lessons have been learned along the way.

- Addressing scope 3 is hard but possible. The upside is innovation, the creation of new markets and completely new models of partnering.
- Building trusted interdependent and mutually accountable relationships with value chain partners will define the winners and the losers.
- It is a business transformation. The timeframe might be longer, but the techniques are familiar: clear objectives, buy-in from staff and stakeholders, planning, learning and refining.
- We must focus on what can be achieved together, from tackling cost pressures to building new markets.
- Without taking a scope 3 perspective it is difficult to reduce scope 1 emissions, due to the constraints that customers and suppliers place on our own processes.

Perhaps the most significant lesson of all is that this roadmap is just the beginning. Each proof of concept and the CLC organisations involved have committed to actions to reduce scope 3 emissions across their value chains. We need this for urgent decarbonisation to limit global temperature rises to 1.5°C above pre-industrial levels this century, a goal that is aligned to the Paris Agreement and the *Climate Change Act 2022*.

While focused on Australian companies and economic impacts, the participation of several multinational organisations in these proofs of concept demonstrates the applicability of the insights and lessons to CEOs across the globe. No longer can we say, 'It's too hard.' Scope 3 emissions are material – making up as much as 65 to 95 per cent of most companies' emissions – and it's time to get started.

CEOs who embrace this opportunity early will build resilience and competitive advantage in a fast-changing world and be better prepared for the climate transition we all face.

David Thodey
Climate Leaders
Coalition Co-Chair

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Summary of Insights



What are scope 3 emissions?

Scope 3 emissions are significant (as much as 65 to 95 per cent of most companies' emissions) and complex. They sit outside your direct control.

- **Scope 1** relates to emissions directly generated in the production of your goods and/or services. It is made up of direct emissions from resources and assets owned and controlled by you.
- **Scope 2** covers indirect emissions from purchased or acquired energy, including electricity, steam, heat and cooling for own use.
- **Scope 3** captures everything else outside your operations not included in scope 2. The [Greenhouse Gas \(GHG\) Protocol](#) separates it into 15 categories, including employee commuting, end-of-life treatment of your products, use of sold product, processing of sold product and investments.



Why reduce scope 3 emissions?

Reducing scope 3 emissions across your value chain is critical to the decarbonisation of the Australian and global economy.

- Transition to a sustainable economy requires complete transformation of value chains, industries and investment.
- Scope 3 and scope 1 emissions are interconnected. While it is possible to reduce your own scope 1 emissions, without taking an 'ecosystem' and scope 3 lens, the ability to do this within the required timeframes is limited. Stakeholders, investors and customers are demanding more.
- Addressing scope 3 emissions creates new business models, partnerships and growth markets. The change required is bigger than that seen in the Industrial Revolution and needs to be executed in roughly half the time.
- Forthcoming disclosure standards from the International Sustainability Standards Board and regulations like the SEC's Climate-Related Disclosure regulation will require companies to report on scope 3 emissions as part of this seismic economic shift. Half of the ASX100 companies already do.*
- The magnitude of change required can't be achieved in silos. It requires a radical degree of collaboration and leaders who are committed to 'progress over perfection'.



How can you get started on reducing scope 3 emissions?

Start now. Accelerate your progress through the learnings of our scope 3 roadmap and practical insights.

- Identify like-minded and strategic partners. Start small, test, learn and scale.
- Be decisive about the measurement standard you will all align to. Set realistic boundaries – you don't have to do it all at once.
- Be open minded and collaborative. You will need to work outside traditional value chains, embrace transparency and appropriately overcome commercial and competitive sensitivities.
- Find workarounds. Data can be shared and managed through independent organisations and agreements.
- Get ready for business transformation. Be upfront about your intent, build trust and buy-in from your value chain, staff and stakeholders. Plan, adapt, reset.
- Prepare for commercial implications. New models of cost sharing, cost ownership and transition financing will be required.
- Work together. This is a step change that requires industry, government and communities to work in unison and communicate regularly for learning purposes. Doing this will amplify impact and accelerate the change required to limit global warming to 1.5°C above pre-industrial levels.

*Source: Promises, pathways & performance: Climate change disclosure in the ASX200, ACSI, July 2022

Scope 3 Proofs of Concept

From January 2022 to September 2022, the Climate Leaders Coalition (CLC) led five proofs of concept to address scope 3 emissions through value chain collaboration.

All five proofs of concept rallied around a common goal of determining how to create 1.5°C aligned value chains.

Participating CEOs started them with open minds to learn more about what it will take to reduce scope 3 emissions across value chains.

This scope 3 roadmap is based on their practical insights.

Beyond the roadmap, this work has led to deeper relationships and a commitment to continue collaborating across value chains to progress initiatives that will reduce scope 3 emissions.

The Beef Collaboration 'BeefCo'	The Beer Collaboration 'BeerCo'	The Flight Collaboration 'FlyCo'	The Gas Collaboration 'GasCo'	The Property Collaboration 'PropCo'
Reduce emissions of beef mince	Carbon-neutral beer	Sustainable aviation fuel	Hydrogen and biogas substitution for industrial gas	Decarbonise commercial buildings
Ampol Elders* Greenstock Hilton Foods APAC* Tays* Woolworths Group	Boortmalt* BevChain (Linfox)* Coles Lion Visy* Viva Energy	Ampol Brisbane Airport Deloitte Qantas Viva Energy	Ampol APA Incitec Pivot Woodside Energy Worley	Deloitte Dexus Ramsay Health Care Schneider Electric
With expert helpers				
Independent, agile collaboration experts	Climate technical experts	Technology providers	Third-party data custodians	Certifiers

* Non-CLC members who participated in proofs of concept

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Scope 3 Is a Business Issue

CEOs are uniquely placed to lead the reduction of GHG emissions across their value chain and accelerate the transition to a low-carbon future.

It's a misconception that companies should only focus on their scope 1 and 2 emissions, leaving scope 3 reduction to others. The ability to reduce scope 1 is hamstrung without tackling emissions arising from upstream and downstream value chain activities. Is there an early-mover advantage in scope 3 emissions reduction and business model innovation? Your peers believe so.

Tackling scope 3 pushes us to the edge of what we need to address in the whole value chain and joint business planning relationships we have with our partners. This is not about being woke or being ready for regulation, it's about doing what is in our control to manage climate risk and be ready for new generations of consumers, customers and talent. These are critical opportunities for relevance and growth."

Stuart Irvine
Former CEO
Lion



Source: **Promises, pathways & performance: Climate change disclosure in the ASX200, ACSI, July 2022 and **Science Based Targets*

The Climate Leaders Coalition | Scope 3 Roadmap
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Scientific targets and strategies for reducing scope 3 provide growth opportunities

Mass mobilisation to limit global warming to 1.5°C above pre-industrial levels is rearranging the way business, society, and economies function. The scale of action needed within the next seven years to stay on course for net zero is immense, and while some enablers exist, others are still forming.

Climateworks Centre has laid out one set of [sector specific roadmaps](#) on the required emissions reduction and technologies that will enable a 1.5°C aligned future by 2030 in its *Decarbonisation Futures* report. This roadmap is focused on Australia only and other credible roadmaps exist.

This transition has the potential to be highly disruptive but it is just as conducive to innovation and growth as it is to destruction. As a result, the climate conversation is shifting from risk mitigation to value creation, product and services innovation, and market share. Whole new partnering models across value chains and beyond are forming. Fundamentally, it is changing the way we do business.

Half of ASX100 companies estimate and publicly disclose their scope 3 emissions* and approximately 20% have committed or already have an approved SBTi target.** This upward trend is driven by a growing awareness that value chain participants are integral to the delivery of net zero commitments. Addressing scope 3 cannot be done alone.

Capital markets and customer demand frontrunning regulation

Australia is primed for change with the announcement of the *Climate Change Act* on 14 September 2022. Legislation requiring Australian companies to report on scope 3 emissions intensity and their plans to reduce them are [on the horizon](#). However, the proofs of concept presented in this roadmap are less concerned about compliance than the societal, economic and strategic imperative to address emissions.

A mounting body of evidence from the likes of Lion shows a 15 per cent surge from 50 per cent in 2014 to 65 per cent in 2020 in consumers actively seeking out climate-friendly products, and a similarly strong groundswell of support for companies demonstrating leadership on climate issues. Business leaders are acutely aware of the early-mover advantage associated with this trend. They also know that their partners are making selections about who to trade with based on sustainability credentials and are motivated by the same opportunities, regulatory and societal conditions. Most importantly, they anticipate the emerging 'next generation' of consumers will be even more demanding in regards to climate and other sustainability credentials.

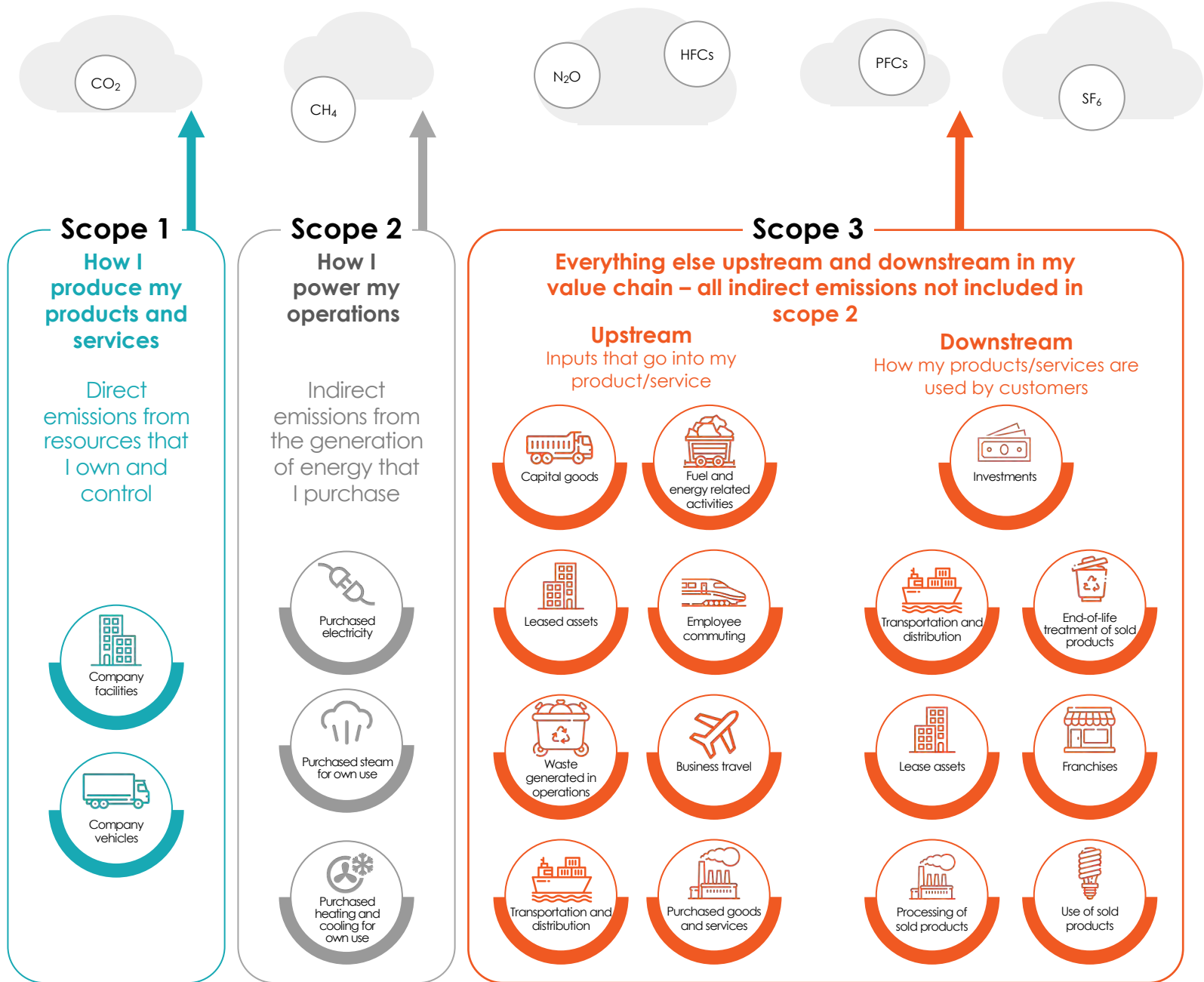
CEOs understand scope 1 and 2. The next step is reducing scope 3 emissions.

Most of the emissions we are working to reduce are in scope 3. They represent as much as 65 to 95 per cent of all emissions for most companies.

Every organisation's scope 3 emissions are someone else's scope 1 or scope 2 emissions. This symbiosis is both the challenge and opportunity. Working in partnership is essential.

The scale and complexity of scope 3 emissions in retail is immense. We have more than 10,000 direct suppliers and our scope 3 emissions are more than 14 times greater than our own scope 1 and 2 emissions."

Brad Banducci
CEO
Woolworths Group



Source: Chart adapted from Greenhouse Gas Protocol

Regulatory and Reporting Requirements

Get ready to report! Capital markets will likely demand or expect scope 3 reporting and assurance ahead of regulatory mandates.

In October 2022, the International Sustainability Standards Board confirmed scope 3 disclosure requirements will be included when the first two standards on sustainability-related disclosures (IFRS S1 and IFRS S2) are finalised in early 2023. These standards have the support of government agencies and will continue to evolve. The time to take inventory is now.

Disclosure expectations on scope 3 have increased

Organisations are typically given a two-year transition period to adopt new reporting standards. However, the capital markets are eager for international and cross-sectoral comparability and consistency on climate-related data, which may accelerate expectations on disclosure.

Once the standards come into effect, capital markets and investors will expect companies to apply them and have their reporting assured. Assurance plays a critical role for investors and can equally provide confidence for internal decision-making around strategic priorities and capital allocation.

More accurate data will produce better science-based carbon reduction targets. This, in turn, will increase confidence around delivery and build trust with stakeholders.

Cross-pollinate finance and ESG data and reporting skills

Environmental, social and governance (ESG) reporting standards aim to merge sustainability and financial data. After existing as distinctly separate metrics for almost two decades, climate-related information will progressively be treated like a company's financial information. ESG data will be captured and processed through the same enterprise resource planning systems with comparable control frameworks. There is vital knowledge that financial reporting teams can transfer to their ESG colleagues around data and reporting and vice versa. Bringing these two skill sets together early is critical to business decision-making and risk management.

Tell a balanced story

Stakeholders expect climate-related reporting to be balanced. Alongside 'good news' stories, they want to know why companies have missed targets, or not progressed as far or as fast as originally anticipated. Regulators, including ASIC, APRA and the ACCC as well as the ASX, have all shown an increased focus on 'greenwashing'. The weight and meaning of climate-related terminology has evolved. False or exaggerated environmental claims carry increasing litigation risk as well as greenwashing and reputational risk if claims are not backed up. It is important that sales and marketing teams understand this shift.

Be transparent about uncertainty

Climate-related data is not static. Value chain partners' emissions data will change, along with the scientific assumptions underpinning a 1.5°C future. Communicating this inherent uncertainty will help manage expectations around scope 3 actions and progress. Be transparent, open and honest about the limitations of baselines, targets and emission reduction initiatives.

Let's make it happen!

The Systems Principle

Think in wholes, not in parts. Consider all the elements of your ecosystem.

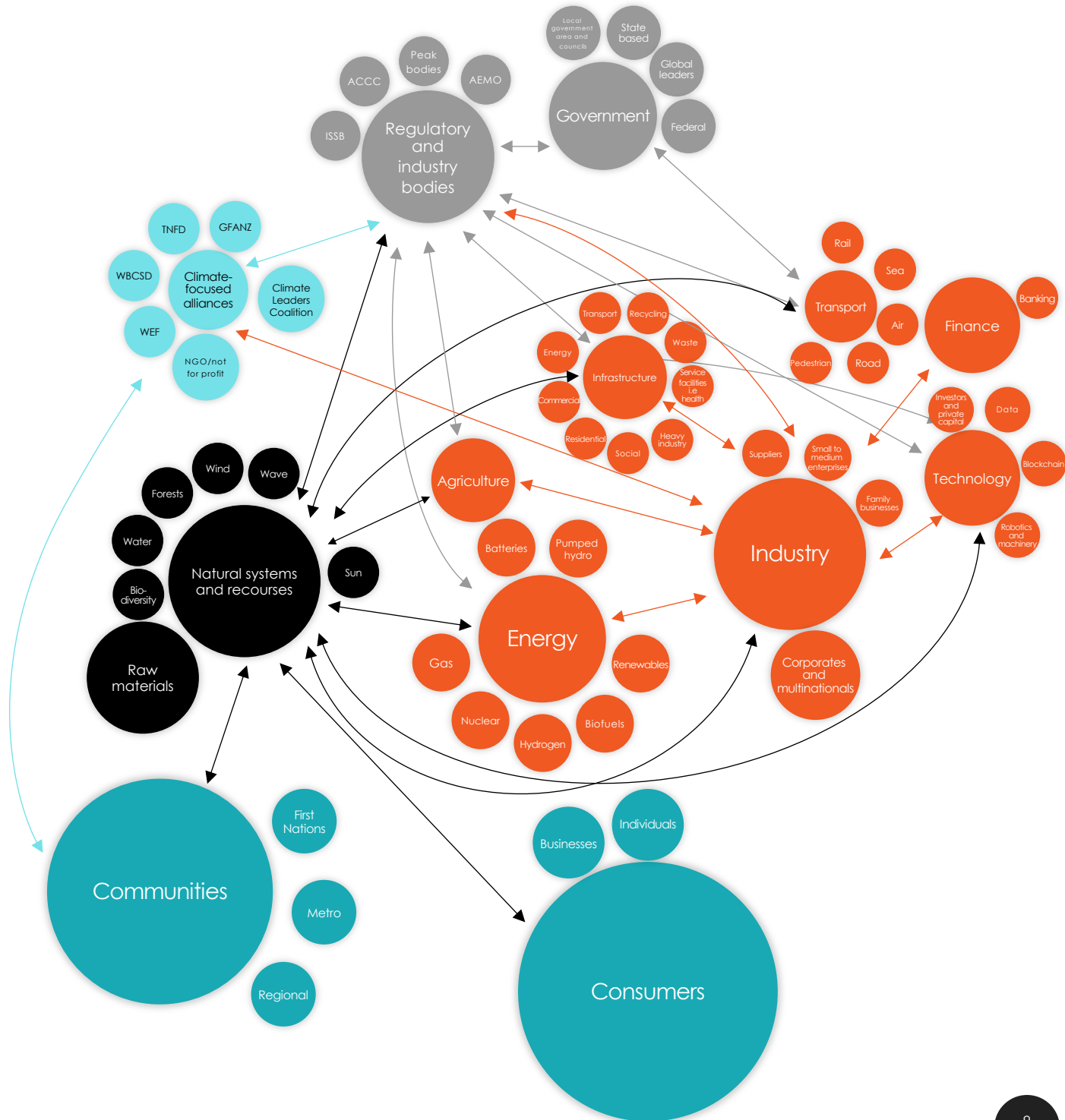
Systems thinking facilitates the creation of an ecological business and value system that will directly contribute to the goal of creating a net zero future.

A systems mindset

The 1.5°C future will not be achieved by one organisation, one sector or one nation alone. The adjustments required will impact every business, from family-based farms to large multinationals. Every household, every government and every policymaker will be affected, and every natural system – from water and waste to forestry – will have to be included in our thinking.

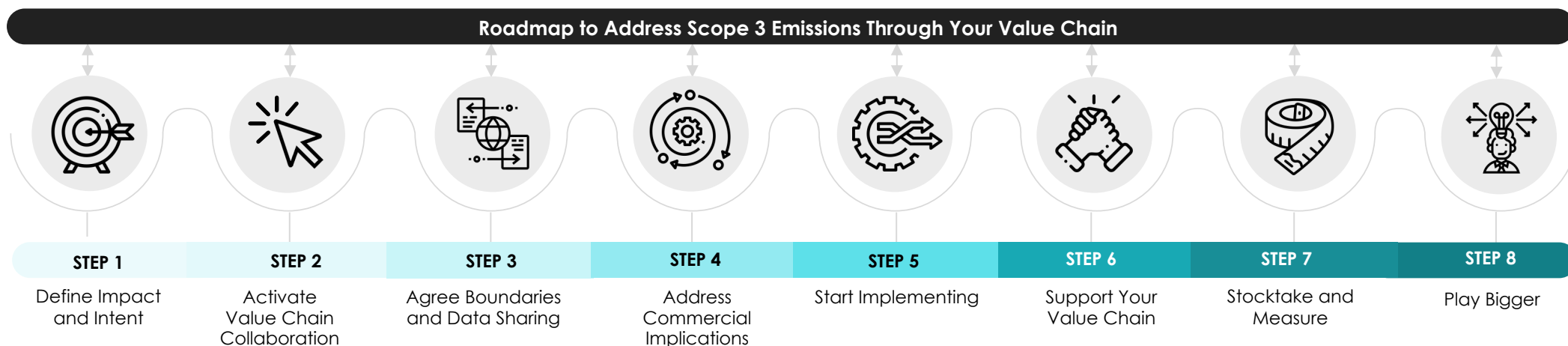
This interconnectedness requires a systemic approach to change. Leaders will have to think beyond their own organisations and collaborate within their field of impact to motivate collective action.

A systems mindset sits at the heart of a successful scope 3 approach. It enables leaders to consider how their broad range of stakeholders interact, and promotes the understanding that collaboration is critical for solving scope 3 and other sustainability challenges.



Let's Start a Scope 3 Conversation

The 8 steps to measure, report and reduce scope 3 emissions



Implementing Scope 3 solutions across value chains is challenging. The significance of what the proofs of concept have done in unearthing and pushing through challenges should not be underestimated. It demonstrates the importance of developing a whole new partnering capability across the value chain."

Matt Halliday
CEO
Ampol



A roadmap for scope 3 reduction

Addressing scope 3 emissions is an urgent task. The Climate Leaders Coalition has developed a practical, eight-step roadmap based on the evidence collected through five proofs of concept.

The insights and lessons learned from 'having a go' and 'not letting perfect get in the way of progress' form the basis of this roadmap. We found that thinking in wholes and collaborating with trust are the key elements of implementing scope 3 solutions across value chains.

The challenges are real, but not insurmountable. Solutions are still emerging and at times messy. An open mind – the willingness to learn, step into challenges and work through them with others who are aligned to the common goal of 1.5°C value chains – enables practical progress.

As you prepare to get started, think about how experts can plug skills gaps in your organisation and engage them early in the process. This may include:

- independent, agile collaboration experts
- climate technical experts
- technology providers
- third-party data custodians
- certifiers.

The following pages contain deep-dives on each of the eight steps. This approach is designed to be applicable across all industries. It identifies key challenges, strategies to overcome them, impact and reduction opportunities, and considerations for transition.

Let's go!



Step 1: Define Impact and Intent

Be explicit about your scope 3 objectives, impact and timeframe.

Strategic importance

CEOs must assess how scope 3 initiatives fit into their overall business strategy. As a first step, they must undertake a scope 3 assessment of their organisation at the portfolio level before targeting a specific product, service or area of their value chain to begin collaborating on scope 3 emissions reduction.

All five proofs of concept saw low-hanging opportunities to reduce emissions. Most identified instances where businesses were more carbon-intensive than objectively needed. The opportunity to reduce value chain emissions in those areas was just a conversation away.

All proof-of-concept participants intend to leverage this work to direct capital allocation.

The proofs of concept laid the groundwork for a 1.5°C aligned value chain by agreeing to use common standards (GHG Protocol and Climate Active) and data-sharing principles. They also assessed the compatibility of

technology and software systems to automate data sharing over time and improve governance and controls around data origination and reporting. Lastly, most narrowed the scope of the product and value chain on which to test and learn to get more precision, confidence and derive better insights.

Assess materiality and supplier prioritisation

Start by identifying your highest emitters mapped to materiality. Assess whether emissions reduction targets exist and whether they align with your own. Both elements are equally important – more progress will be made with value chain partners whose maturity and commitments are aligned to your own.

Next, start a conversation with priority suppliers and customers with the goal of agreeing to exchange actual carbon data. This is the first step towards working together to reduce emissions. When you have an agreed baseline and measurement standard, the foundation for the initiatives you are going to jointly undertake will have been established.

We have a genuine interest in getting to net zero. Window dressing is not acceptable.”

Yvan Schaepman
CEO
Boortmalt Group



Solve the near-term commercial challenges with the future vision in mind – it is clear what net zero 1.5°C aligned value chains need to look like, and now is the time to design and build innovative models.”

Anna Skarbek
CEO
Climateworks Centre



For a large, diverse group like Wesfarmers, the complex task of calculating our scope 3 emissions baseline has helped to highlight the most material opportunities to influence decarbonisation, outside of our operations. It has reinforced the importance of strategies like the use of sustainable raw materials and support for recycling of products at end-of-life.”

Rob Scott
CEO
Wesfarmers



Questions for CEOs to ask:

1. Why is addressing scope 3 strategically important? Have we set a scope 3 emissions target aligned to the Science Based Targets Initiatives (SBTis) or comparable framework such as the Net-Zero Banking Alliance guidance?
2. What categories of scope 3 emissions will have the most impact on overall emissions?
3. Which suppliers are strategically aligned?
4. Which suppliers are responsible for material emissions?
5. Where can we identify a product, service or operation to get started?
6. How will this change our business model, create growth or improve efficiencies?



Insight: Start with your biggest scope 3 emitters

Lion's intent was to exchange actual emissions factor data with key value chain partners in relation to the development of a carbon-neutral beer.

The impact they set out to create was to improve the integrity of climate-related commercial decisions, and to identify opportunities to reduce scope 3 emissions across their value chain. With key suppliers sitting outside the CLC, selecting the right partners and setting time aside to build trust was essential.

“We started with the biggest scope 3 emitters. Like me, they had been thinking about this. The idea of Lion sharing data and them sharing data back was appealing for our strategic relationship.”

Stuart Irvine, former CEO, Lion

The engagement process and invitation to join the proof of concept was very different to the normal price conversation suppliers are used to having. What Lion found, through a series of one-on-ones, was that their highest emitting suppliers had also been thinking about emissions reduction. They were open to collaboration and to working through how to share actual data. For some suppliers, Lion is their biggest customer, and the chance to work together was strategic in forming a new kind of relationship. For others, such as Coles, working with suppliers is a priority to tackle scope 3 emissions. Being involved in tackling scope 3 across an entire value chain was incredibly valuable.

Once all of Lion's suppliers were on board, they shared their expectations from the proof of concept. It kickstarted a new open conversation and shift in relationship dynamic required for scope 3. It became core to their joint business planning discussions.



Insight: Embrace the power of partnerships

Woolworths Group wanted to find a solution to get beef on a 1.5°C aligned trajectory, driven by the insight that red meat is one of the most important categories for customers when thinking about sustainability. They have set an SBTi scope 3 target for 2030 of 19 per cent reduction.

Partnering with the industry enables them to meet their goal as well as support the Australian red meat industry's own target to become carbon neutral by 2030.*

The very nature of red meat production means it has higher GHG emissions compared to other fresh foods and protein sources. As a result, emission reduction efforts in this space can make a meaningful difference to the carbon footprint of a customer's shopping basket. It is an emissions challenge that Woolworths Group, like others, knows it can't solve alone. The bulk of emissions are generated way up the value chain – about 80 per cent on cattle farms.

“There's an increasing need for collaboration across the value chain, working together to respond to shifting sustainability expectations. Drawing on the Australian Beef Sustainability Framework and the CLC's leadership, our business is making positive changes across all our operations and investing in areas that will make a difference – so that we are doing well by doing good.”

Andrew MacPherson, CEO, Teys



Woolworths Groups' clarity of focus coming into the proof of concept allowed it to move swiftly – within a fortnight it had reached outside the CLC to bring in the right partners. This diversity of thought generated ideas that individual parties hadn't considered. Impact was also accelerated by speaking to more progressed proof of concept participants such as Lion and Ampol.

Step 2: Activate Value Chain Collaboration

Engaging your value chain partners in the scope 3 conversation requires trust and cooperation.

Supplier engagement

Collaborating with your value chain is critical for reducing scope 3 GHG emissions.

Take the time to build trust by developing an understanding of your partners' targets, objectives and motivations. Most will be driven by structural shifts and the opportunity to create an early-mover advantage. Be explicit about the benefits sought.

The discovery process should begin by identifying points of alignment and mapping each party's expectations. Running this exercise with all the value chain partners together (rather than individually) creates a foundation for building trust, deepens understanding, and establishes a process for sustained collaboration.

The CLC framework introduces discipline

Scope 3 initiatives traverse sensitive commercial territory and require a framework to address ambition and fears.

The CLC framework introduces discipline around the collaboration process and agile principles that absorb learnings and allow for quick resets. The key message is 'don't let the pursuit of perfection stand in the way of progress'. The framework has already helped those involved in scope 3 proofs of concept to progress faster than expected.

Seek help from experts

From data custodians to technology, software and collaboration leaders, experts are the key to keep scope 3 initiatives going. Our proof-of-concept participants relied heavily on independent experts to push through blockades, such as building trust around data sharing.

Capabilities and mindsets

More time will be spent mobilising energy and commitment in scope 3 conversations, and less time on exerting control using conventional concepts of power. Prepare to not have all the answers going into this process.

Mapping the value chain

Mapping value chain connections and interdependencies must be done in collaboration with key partners. This exercise will quickly identify who is missing from the conversation,

and how and when to bring them in. Partners are also central to defining a manageable scope and setting realistic boundaries. Companies with complex value chains and thousands of suppliers must prioritise suppliers to work with first to set the direction for others to follow.

Accurate footprint requires actual data

Although commercially sensitive, sharing actual emissions data with your partners should form the basis of your scope 3 exercise. The execution could be managed as a two-step process, starting with a baseline estimate using third-party emission factors. Application of these emission factors can be inaccurate, containing 20 per cent variability. Data-sharing agreements with independent black-box data custodians can enable all parties to obtain a verified carbon footprint using actual emissions.

To get to net zero, we must act with collective imperative. The complexity, scale and rate of change we're facing will be unlike anything we've seen in our lifetimes. We will need to completely transform the way we design, build and collaborate within our value chain."

Chris Ashton
CEO
Worley

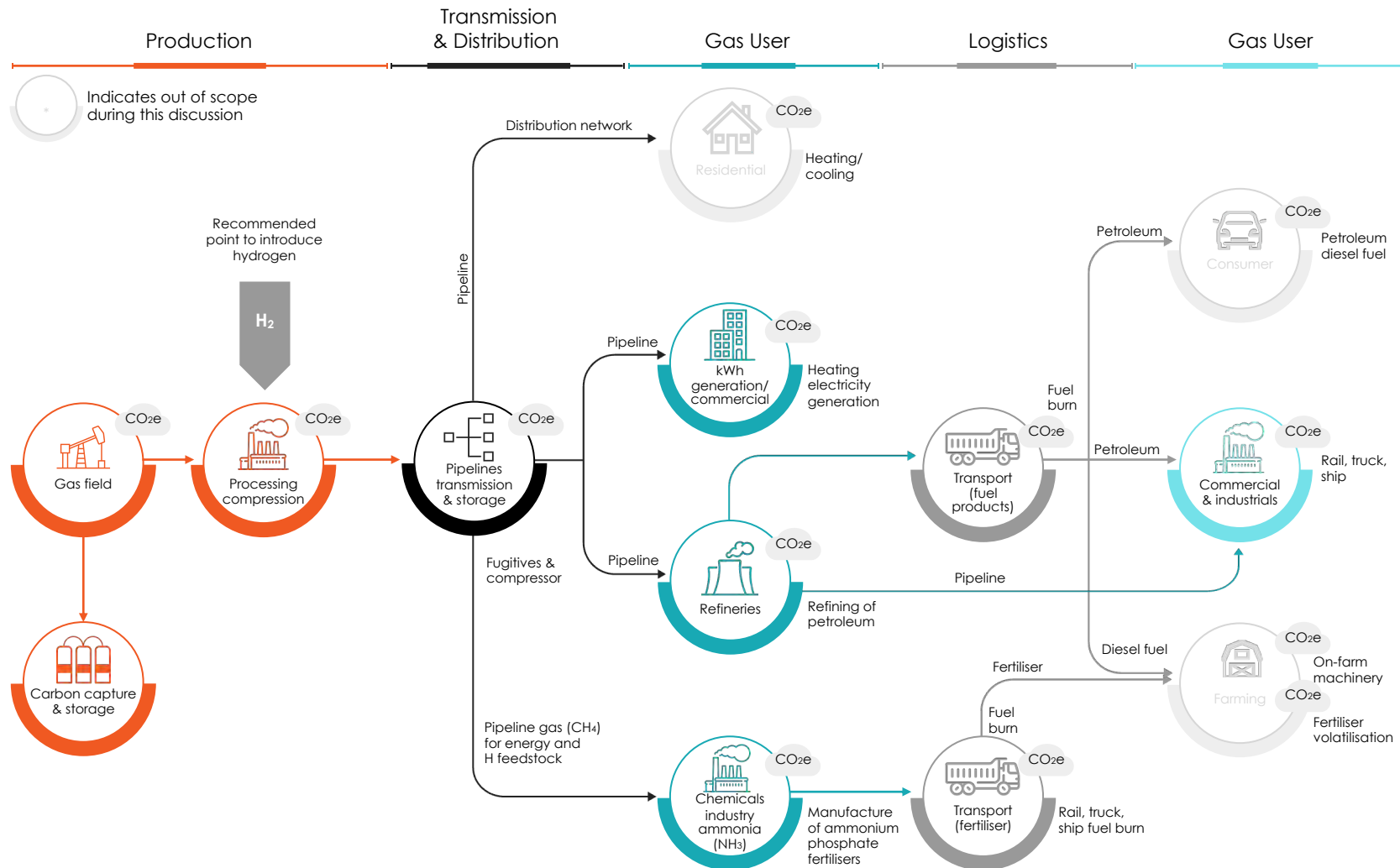


Questions for CEOs to ask:

1. How will we start the conversation with key value chain partners?
2. What collaboration sequence and models will we put in place?
3. What expertise do we need to enable collaboration?
4. What new capabilities and mindset do we need to grow?
5. How well do we know the connections and interdependencies in our value chain?

Visual Mapping 'GasCo' - Industrial Gas

Your Value Chain Is Not As Straightforward As You Think!



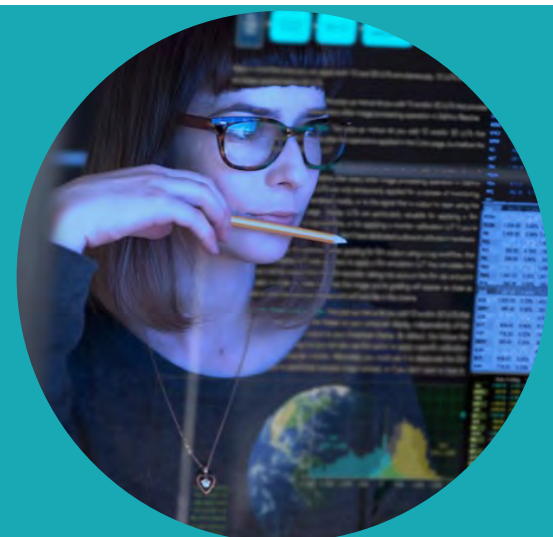
How we connect
A Visual Value Chain

GasCo used visual mapping to gain clarity around one configuration of connection points across its value chain. It produced a very different result than was originally envisaged, highlighting how opaque these processes often are. Running this exercise with the right people in the room was critical. It led to opportunities for collaborative learning.

In addition to providing transparency, the visual representation uncovered reduction opportunities. It allowed GasCo to get a clear view on current scope 3 emissions and how hydrogen blending would create reductions across the industrial gas value chain.

It also enabled a technical feasibility conversation around the optimal point for hydrogen blending.

Source: GasCo collaboration



Step 3: Agree Boundaries and Data Sharing

Baseline and measurement standards will help you identify joint scope 3 reduction initiatives.

Set boundaries

ESG leaders acknowledge the wisdom of being realistic, even conservative, in setting the boundaries from which you start and stop measuring scope 3 emissions.

There are distinct advantages to starting small on scope 3. Drowning in more data than you know what to do with is a serious risk, so doing a life-cycle sustainability assessment of the whole business should happen in stages.

The proofs of concept scaled back the scope of their initiatives to obtain better insights – quality over quantity, but with a vision to scale quickly. By 2025, the CLC organisations involved aim to be recording enterprise-wide scope 3 emissions and working with value chain partners to take action to reduce them.

Without boundaries, scope 3 can quickly become unwieldy and initiatives can lose sight of their intent. The trick is to strike a balance between something meaningful and something manageable. Find a common starting point on how you're going to measure, and what that baseline looks like. This will be the foundation for agreeing what initiatives you will work on with partners, and how you will demonstrate and track progress.

Questions for CEOs to ask:

1. Where do we set the emission boundaries? How will we focus on the material emissions and avoid distraction from immaterial contributions?
2. How will we agree on a common measurement standard for data?
3. How will we share data across our value chain and deal with transparency issues?
4. What technologies can support data sharing?
5. What initiatives will we work on to reduce emissions based on evidence and data?

Agree data language and principles

Data sharing is shaping up to be one of the most contentious aspects of scope 3 initiatives. The integrity of emissions data impacts commercials, as does the overarching ambition to address climate change. Here, emissions data can be an effective proxy for energy costs.

Suppliers are concerned that procurement teams will push for discounts if they see emissions falling. However, improving accuracy should be front and centre of any scope 3 conversation.

Such concerns may be dealt with by ensuring that competitively sensitive data is not inadvertently shared between competitors in relevant markets. This may be achieved by using 'black box' data-sharing arrangements, where data is provided only to an independent third-party aggregator. They then collate and aggregate the data into a verified carbon footprint, without the disclosure of commercially sensitive data to participants. This approach, combined with a data-sharing agreement and anti-competitive documentation, ensures that competition laws are fully respected.

Ensuring data and trust

The effectiveness of scope 3 reduction initiatives will be underpinned by ensuring trust in the data-sharing ecosystem.

The sensitive nature of data associated with scope 3 emissions calls for the implementation of robust data-sharing controls.

These include ensuring that data access, use rights and obligations have been formally agreed between participants as well as having clear definitions of the data that needs to be shared.

Data must be complete, compliant with requirements and fit-for-purpose, and data security and protection controls need to be implemented throughout collection, sharing, processing, use, storage, retention and disposition.

Finally, having assurance mechanisms in place is important to ensure that all parties are abiding by their obligations.

We believe everyone can benefit from opening, sharing and collaborating around data to make better decisions, improve efficiency and help tackle some of the world's most pressing societal challenges."

Steven Worrall
Managing Director
Microsoft Australia
and New Zealand



Partnership for Carbon Transparency

The World Business Council for Sustainable

Development (WBCSD) is enabling confidential and secure exchange of granular, primary and verified product emissions data across organisations. The Partnership for Carbon Transparency (PACT) sets the foundations for standardised emissions data sharing across different technology solutions. See helpful links.

Solve the Data-Sharing Challenge

A lesson from BeerCo

The key to scope 3 initiative success is trust. It can be built using the right tools.

In order to step up its scope 3 reduction initiatives, Lion requested actual data from its value chain partners. However, their partners were anxious about sharing commercially sensitive emissions information. Lion felt conflicted about pressing the point. After all, it had the least to lose from such transparency.

Within the CLC framework, collaboration experts ran a trust-building process to unpack and address the emotional, political and rational objections to data-sharing. By acknowledging fears and opportunities, they identified two simple conditions – a data-sharing agreement to avoid any risk of sharing competitively sensitive information and a data custodian – that needed to be in place for the scope 3 emissions reduction initiative to proceed.

BeefCo and FlyCo adopted the same solution, demonstrating how knowledge-sharing and collaborative forums can accelerate solutions.

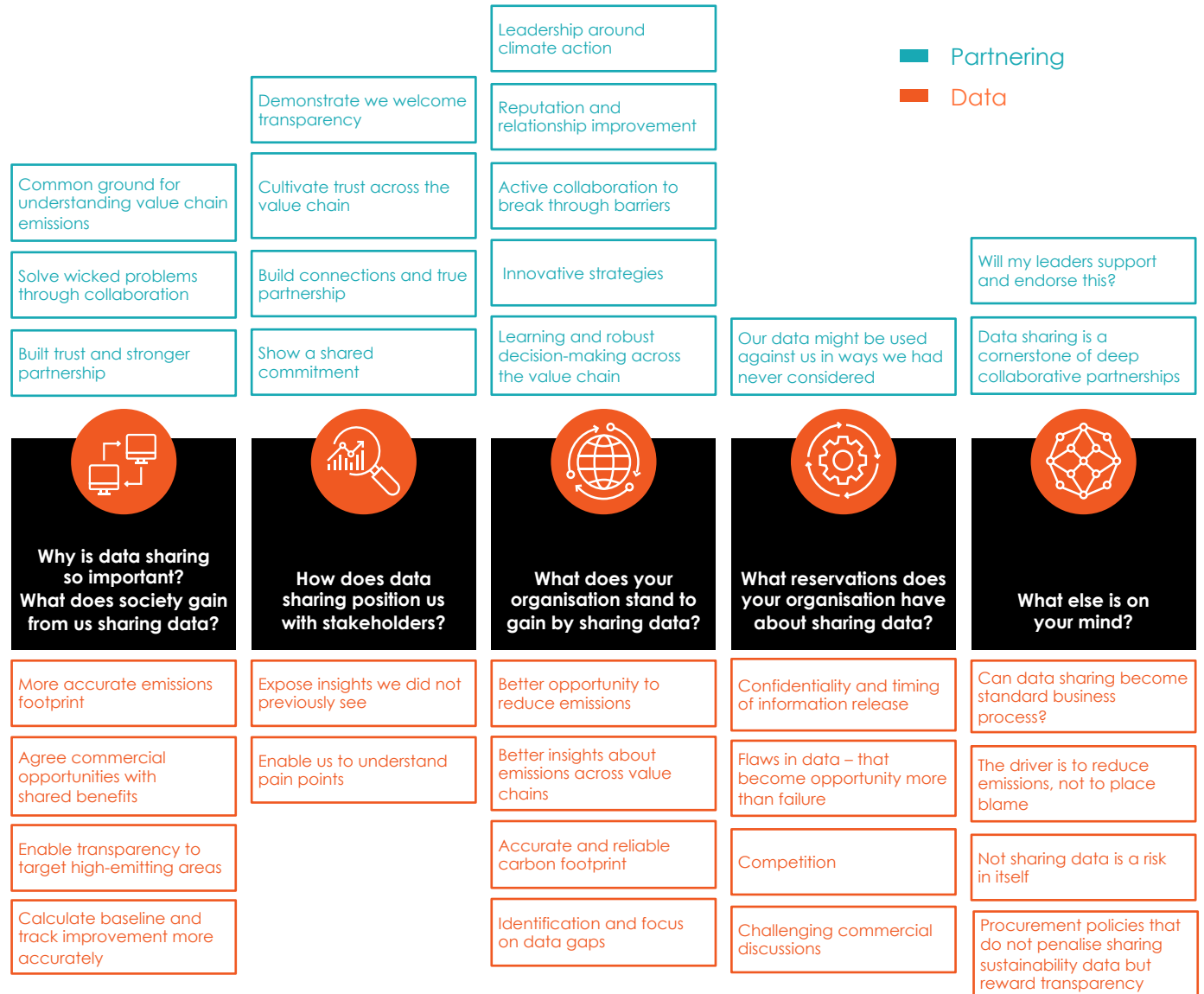
“For us to truly move towards a better future, it is critical that sustainability considerations are built into operating models and end-to-end value chains. Doing this requires leadership and trust to support the sharing of data so that we can measure what’s really important for us to manage.”

Damien Bueno
President and Managing Director
SAP Australia



Source: BeerCo data sharing

The Climate Leaders Coalition | Scope 3 Roadmap
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Step 4: Address Commercial Implications

Treating transition solely as a cost imposition misses the commercial opportunity arising from change. Think creatively and innovate for better outcomes instead.

Whole of value chain thinking – opportunities and risks

As scope 3 conversations gather pace, whole value chains will need to adapt. A key learning from the proofs of concept is that without some government intervention, market demand needs to be underpinned through material customers willing to engage in value chain transformation.

Cost and benefit redistribution models

Now is a good time to start thinking about ways to participate in the circular economy. Are you able to build value chains that deliver higher-value products in more efficient ways? Have you surveyed your customers to understand their demands and needs? Can you use this data as leverage with suppliers to drive change?

There could be customers who share your goals and have the capacity to pay. This creates the potential to pass on additional costs from transition – up to 80 per cent in some cases. Understanding

these possible future benefits may drive increased market share and margins, higher productivity, lower staff turnover and increased access to international markets.

Conversely, without a clear pathway to build a sustainable value chain with partners and customers, transition may be slowed through creating a real or perceived impasse. This could result in heavy-handed policy interventions that drive change without the guidance of industry.

The cost of transition will not be distributed evenly, as the relative drivers, costs and benefits will vary. Value chain participants should openly consider how the costs and benefits can be distributed fairly across all parties in a way that is acceptable to all.

The role of finance in transition

Decarbonising your value chain will require investment. The financing mix will vary at different stages of transition and should be determined in line with the project's risk–return profile. For example, early-stage venture funding may be needed to commercialise required but early technologies. Government grants or subordinated debt funding can enable solution scaling. Corporate incubator funding can provide

channel to market. Project finance can facilitate major capital projects. Debt facilities can cover the working capital changes for transitioning business models.

As transition projects are operationalised to become business as usual, there is an opportunity for funding through superannuation asset managers, enabling project developers to realise their returns.



Scope 3 Financing and Commercial Implications

The Climate Leaders Coalition has developed a practical point of view on the financial and commercial implications of scope 3. See helpful links.

Solving the commercial challenges of scope 3 is going to require practical and pragmatic decision-making, close collaboration in developing targets and sharing data and a genuine focus on technical and business model innovation.”

Adam Powick
CEO
Deloitte



Questions for CEOs to ask:

1. What opportunities can we build into our transition to a low-emissions future (e.g. adjacent revenue streams, new business models, substitute products, consumer growth)?
2. What level of investment might be needed across the value chain to make the transition? Where in the value chain will those investments be needed (e.g. new skills, capabilities, technologies)?
3. What are the capital cycles of our value chain partners? How could we align capital cycles for meaningful impact? What are the options for absorbing or passing on overall cost increases and decreases across the value chain?
4. What financial transition support is available from private capital, public funding and blended finance?



Insight: Cost to transition

Dexus's net zero achievement for its building operations aligns with changing customer and investor sentiment. Dexus's pathway to carbon neutrality was the combination of reducing GHG emissions

through energy efficiency, renewable power purchase agreements and investment in certified, nature-based carbon offsets for downstream emissions.

Dexus is now looking at cost recovery from corporate tenants to fund the next stage of their decarbonisation journey, which includes tackling some scope 3 emissions in other parts of its value chain, including fit-outs and construction materials.

Demand from institutional funds and investors continues to be a driving force, and customers are increasingly seeking green office space. Dexus is absorbing the expense as non-recoverable for now, acknowledging the need to address climate-related risks and opportunities to meet strategic objectives.

“While transitioning to a low-carbon economy comes at a cost, all parts of the value chain have the opportunity to play a role in decarbonising the built environment. Sharing insights and solutions across the industry is the key to building collective climate resilience.”

Darren Steinberg, CEO, Dexus



Insight: Revenue stacking

New applications are emerging in hard-to-abate sectors to support the transition. Ammonia as an energy source represents a potential new revenue opportunity for Incitec Pivot Limited (IPL).

Ammonia, while assisting the chemicals manufacturer with revenue, also assists IPL's customers in their decarbonisation journeys. Although market appetite for green ammonia is still low, IPL is exploring different business models to sell premium green ammonia to Asian energy markets at two new sites.

These large export projects will allow IPL to demonstrate green ammonia use as a legitimate decarbonisation pathway for hard-to-abate industries, from co-firing in power plants to shipping fuel – industries that will use the hydrogen in the ammonia molecule for energy, as opposed to the nitrogen benefits of ammonia for IPL's current markets. The company is still working out the price point at which it would be able to generate sufficient market demand within its existing nitrogen markets.

Pursuing these emerging opportunities could also have important global socio-economic implications. Equitable green economy transition will not be possible if producers start making ammonia for energy instead of feeding the planet.

“Balancing the use of ammonia for growing food with the benefits of its use as a green fuel, is profoundly challenging. Eighty-five per cent of ammonia production in the world goes into growing food, and higher costs will be passed all the way down to the consumer.”

Jeanne Johns, CEO, Incitec Pivot Limited



Step 5: Start Implementing

Actions to reduce emissions will demand very different behaviours from every part of an organisation, from procurement to finance and IT. Start small, learn along the way and build momentum.

Get your organisation ready

There's a good chance your suppliers have been grilled by the procurement team on price over the years. Now procurement needs to factor a very different input into negotiations: carbon. This would be easier with an agreed cost of carbon. In its absence, sustainability and procurement teams need to find a way to operate on the same wavelength. This will require constant work amid price volatility, like that being experienced in energy and global logistics markets. The habit of commercial imperatives trumping sustainability will be a hard one to break. When considering the cost of transition, also consider the future cost of doing nothing.

Incoming sustainability standards will become a trigger point for rapid integration between ESG and finance teams, who will need to share knowledge and cross-pollinate skills.

Internalising other environmental costs is another challenge. The emergence of

natural capital markets and the development of reporting standards should produce a much better understanding of the value of nature and how it is incorporated into balance sheets.

Change your relationship with suppliers

Pick up the phone and have a top-to-top conversation about sustainability ambitions with your value chain partners. Nothing elevates the level of understanding across the business like a CEO asking what the carbon impact of a particular strategic decision will be. Some proof-of-concept participants were uncomfortable initiating these conversations but were surprised by how willing partners were to collaborate.

Invest in enablers

Technology systems will be central to ingesting, managing and making sense of the value chain emissions data. Soon, organisations will want to get emissions data on a regular basis (e.g. Ramsay Health Care want to engage with 80 per cent (by spend) of its supplier base by 2027).

With the introduction of the EU carbon border adjustment mechanism, multinational corporations could gain a competitive edge from the intellectual property that their multi-jurisdictional emissions tracking and tracing systems generate.

There are emerging technology products and platforms positioning themselves against traditional enterprise resource planning platforms. However, organisations are keen to integrate and cross reference ESG data with their bill of materials, invoicing, etc. Most would prefer enterprise technology incumbents to plug the gap.

Regardless of the system, you will need clean data. This is often the best answer to the question of competing standards. Clean data is more easily applied to any reporting standard.

Data allows you to set the baseline, test and learn, and gives you the confidence to know if what you're doing is having the intended impact. From there, you can scale investment and other actions to accelerate outcomes.

Upskilling may be required to build trust through collaboration techniques and facilitate experimentation across organisational boundaries.

“There has never been a more important time for partnership. By coming together and working as a collective we can pool resources, expand our expertise and share learnings to make progress more quickly for the benefit of all.”

Steven Worrall
Managing Director
Microsoft Australia
and New Zealand



Questions for CEOs to ask:

1. How will we lead transformation across our organisation (e.g. procurement, finance, IT, board sign-off on capital expenditure)?
2. What additional skills and capabilities do we need to execute? Can we upskill current teams?
3. How will we work with our value chain partners to deliver ongoing emissions reductions and how will this change our relationships?
4. How will we remain agile and open to changing direction as new information emerges?



Insight: Collaboration leads to acceleration

Decarbonisation of the heavy transport sector is a real challenge – technical solutions are available, but it will require value chain participants to come together to commercialise their uptake.

Viva Energy has partnered with some of its customers, hydrogen vehicle manufacturers and government to demonstrate the important role that hydrogen can play in decarbonising the hard-to-transition commercial road transport sector through Australia's most ambitious renewable hydrogen mobility project.

Viva Energy's New Energies Service Station in Geelong will be Australia's first publicly accessible hydrogen refuelling station built specifically for heavy vehicles such as trucks and buses. It is due to be commissioned in late 2023 and will be the catalyst for a network of hydrogen refuelling stations from Geelong to Sydney, and on to Brisbane.

The project will help realise Australia's aspirations of achieving net zero emissions by 2050 by providing opportunities for industry to take up renewable hydrogen-powered vehicle fleets.

“Our project highlights the benefits of industry value chain partners and government working together to accelerate the decarbonisation of hard-to-transition sectors like heavy road transport.”

Scott Wyatt, CEO, Viva Energy



Step 6: Support Your Value Chain

Scope 3 connects the success of value chains. Helping upstream and downstream partners ultimately benefits you.

Communicate expectations and commitments

Leaders in ESG dedicate time and resources to sharing, educating and listening to value chain partners because they want and need them to survive this transition. For example, supermarket Coles invites suppliers to participate in webinars as part of a broader effort to bring stakeholders, including its team members, along its decarbonisation journey. Woolworths Group is trialling the Sustainability Insight System (THEISIS) to build sustainability capacity across their value chain.

The strategy and adaptation signals you send to value chain partners are as important as your own ability to receive, absorb and act on signals issued by key upstream and downstream stakeholders.

This includes leading on transparency. Until you disclose and report on scope 3 in some form and with independent assurance, the sense of urgency and accountability to take emissions reductions action will fall away.

Questions for CEOs to ask:

1. How will we communicate our expectations to our suppliers, customers and shareholders?
2. How will we support our value chain through transition?
3. What conditions need to be put in place to support transition across our value chain?
4. What role will we play in supporting capability building for our suppliers?

Be an accelerator

First-movers recognise that good preparation allows value chain partners to employ insights and resources as a springboard to their own decarbonisation efforts. Lion has over 200 pubs and clubs signed up to its aggregate 100 per cent renewable Power Purchase Agreement in NSW. In addition to a renewable-energy buying group, Dexus is working on an enhanced menu of services, including telecommunications and consumables, to help tenants lower their emissions by using its scale and deep understanding of the complex sustainability landscape. This particularly supports smaller tenants by providing a solution in an area that is not core but in which they are eager to do the right thing. Collaborating on these types of initiatives has been a key driver to maintaining and enhancing Dexus's net promoter score in customer surveys.

Similarly, BevChain (Linfox) is extending the benefits of its sizable technology investments to its subcontractor network. Its Digital Freight Network is currently being modified to collect and transmit emissions data from both BevChain (Linfox) and subcontractor vehicles.

Having the knowledge and solutions to meet the needs of customers with varying degrees of maturity is a central plank of Ampol and Viva Energy's future energy divisions.

Change communications and education

Raising customer awareness and acceptance will be critical in designing successful cost-recovery models for climate-friendly products and services. This is especially true of big-ticket items, such as green flights. Change management responsibility will fall on the brands that own the relationship with customers. They can build appropriate narratives and have the marketing nous to encourage behavioural change.

Share the financial burden

Companies such as Qantas, Dexus and Incitec Pivot have used demographic segmentation to identify customers with limited or no capacity to bear the additional expense of net zero transition. This cohort might need a more generous skew in cost-sharing arrangements.

“We want to be an enabler for suppliers on their own scope 1 and 2 emissions reduction, to help accelerate their progress towards a better tomorrow.”

Brad Banducci
CEO
Woolworths Group





Insight: Customer and supplier education

Brands that own the customer relationship will drive demand through education.

Consumer education has emerged as a critical enabler in the creation of a domestic sustainable aviation fuel industry, which would allow parties in this value chain to decarbonise their operations and hit net zero targets faster.

Aviation contributes 3 per cent to global CO₂ emissions. As a sector, it could be one of the easiest industries to fix, by swapping out crude oil-derived jet fuel with sustainable aviation fuels (SAFs) made from agricultural waste.

However, getting customers to buy SAFs requires education across and beyond the whole value chain. Passengers and regulators need to be convinced that SAFs are safe, reduce emissions and are worth the additional cost. At the moment, SAFs cost three to five times more than traditional jet fuel.

Qantas and Brisbane Airport have a leadership role in 'normalising' SAF due to their upstream and downstream value chain influence. Qantas owns the direct customer/passenger relationship and the contracts with fuel providers, including Viva Energy and Ampol. Brisbane Airport facilitates the implementation of SAF onsite and has direct relationships with the airlines, ground handlers and passengers.

“We know nothing can be achieved in aviation alone. The decarbonisation challenge can only be tackled successfully with the collaboration of value chain partners.”

Gert-Jan de Graaff, CEO, Brisbane Airport



Insight: Using technology to drive outcomes

Measurement is key to reducing GHG emissions. You can't manage what you can't measure.

By measuring their GHG emissions, reliably and at scale, organisations can reduce their resource usage, replace high-footprint with low-footprint resources and offset the emissions they cannot avoid.

Microsoft has used learnings from our own sustainability journey to create solutions that make it easier for organisations to record, report on and reduce their emissions and other environmental impacts.

One solution is Microsoft Cloud for Sustainability, which helps organisations understand their environmental impact and make lasting changes to reduce their footprint. Another solution is Microsoft's Emissions Impact Dashboard, which provides customers with actionable insights on GHG emissions from using Microsoft Cloud services. Microsoft is also working with their value chain to reduce their own scope 3 emissions. Their target? To halve emissions by 2030 and share their progress and learnings to support other organisations' net zero journeys.

“Harnessing the power of technology can accelerate each of our sustainability journeys across industries, through measuring emissions, common interventions like remote work, energy efficient smart spaces, and using artificial intelligence and machine learning to assess climate risk.”

Steven Worrall, Managing Director,
Microsoft Australia and New Zealand

Step 7: Stocktake and Measure

Reporting on scope 3 gives you confidence that what you're doing is having the intended impact and the insights to continually improve.

Life-cycle assessments

The proofs of concept proved the benefits of narrowing the scope to focus on a specific product or service to test and learn, with the intention of scaling those insights and actions across enterprise-wide value chains.

Emissions factors

The emissions factor of the activities undertaken within your value chain is the foundation for addressing scope 3. Calculating them is considered a basic starting point and an important measure of success, but you also need to continually update them to improve the accuracy and integrity of your footprint. Estimates using third-party or publicly available sources are a valid interim solution; however, companies like Woolworths Group and Coles are setting the expectation that estimates are a precursor to sharing actual emissions data. While the factor itself is an important enabler, its downward trend is what really matters.

Technology solutions will help in this area. CLC members have committed to embedding collaborative, trusted, scalable and interoperable data and procurement systems and processes across their value chains.

Relationship building

Several proof-of-concept participants have set a deadline to map the emissions factor of a prescribed portion of their value chain. In the process, they are developing a heightened awareness and understanding of what makes them tick, opportunities and vulnerabilities.

Ongoing transparency

Get comfortable sharing your data both with value chain partners and publicly. Incoming standards will require ongoing transparency on scope 3, and investors, staff and stakeholders will demand to know why it is not being supplied.

Disclosure will come in all shapes and sizes – once FlyCo establishes a CLC members' buying group for green flights, it will report progress annually.

Collaboration

Collaboration sits at the heart of reducing scope 3 emissions and several proofs of concept commented on how much the appetite to cooperate on solving this problem has shifted in a short period of time. How many conversations you initiate with value chain partners with an eye to action is a rudimentary but telling measure of your willingness to create systemic impact.

Commercials – the bottom line

At the end of the day, someone has to be willing to buy a green product or service at a sustainable price. However, proofs of concept found that focusing on this too early in the process stymied innovation.

The benefit of collaboration is not so much about coming up with solutions – these are often already available, like SAF for aviation. It's the sharp focus on acceleration and getting things happening more quickly."
Scott Wyatt
CEO
Viva Energy



Questions for CEOs to ask:

1. What approach will we agree on with partners on reporting, audit and assurance?
2. How will we measure progress and ensure accuracy across the full value chain?
3. What practical impact have our initiatives had on reducing scope 3 emissions?
4. Where do we need to create change beyond our company and how will we do that?

Step 8: Play Bigger

Urgency of action is the challenge we are all facing. Embracing opportunities to amplify the reduction of scope 3 emission is the solution.

New models of partnerships

Scope 3 momentum is driving the emergence of whole new value chains founded on intense levels of collaboration. Our proof-of-concept participants adopted Paul Polman's term 'radical collaboration' to describe this new way of working.

Radical collaborators are concerned that competition regulators could interpret emission reduction initiatives, such as using 'black-box' arrangements to collate data, as exerting undue influence on commercial partners. Market share leaders have often been on the receiving end of anti-trust lawsuits and are highly attuned to this risk.

When Lion proposed radical collaboration to scale impact in its data and technology systems pilots, it met internal resistance. This revolved around the legal firepower required to ensure these conversations didn't attract the ire of the competition regulator.

However, such issues are surmountable, as the Property Council's administration of a modern slavery due-diligence tool and big forestry players taking action on sustainable palm oil demonstrate.

Knowledge sharing

Sharing through industry forums and bodies is one of the most potent ways to amplify and accelerate scope 3 conversations and learnings.

BeerCo's work around data sharing has already been picked up and used by two other proofs of concept. BeerCo is keen to scale its learnings and technology pilot across the beverage sector. Similarly, FlyCo is considering how it can design the SAF ticketing system as an open-source platform for others to leverage and access. FlyCo believes its transition learnings will apply to airports and airlines globally.

Moving in unison is, indeed, a prerequisite for sectoral transition. Industry-level agreements could be a critical lever in the race to tackle scope 3 emissions. Professional bodies will play an important role in encouraging key stakeholders to set sectoral targets. In addition to providing guard rails to get moving, this will help to level the playing field and enable a whole of economy approach to decarbonising in line with 1.5°C.

New markets

Progressive ESG players have already created new markets for electric cars, sustainable farming and carbon sequestration. Under-investment in the energy transition could be solved

by collaboration with like-minded value chain partners.

The role of government

All sectors are looking for government to work with business to achieve faster transition. Without this, scope 3 solutions that rely on immature markets such as electric vehicles (EVs) (and electrification more broadly) are slowed. While some proofs of concept feel that creating sufficient demand for commodities, such as SAF and hydrogen, should happen with policy assistance, others are happy for government to align on outcomes without directly intervening.

In parallel, international governments are starting to incentivise the uptake of SAF to accelerate their climate commitments and progress. Cutting airline and shipping emissions is seen as one of the levers governments can pull in the race to net zero.

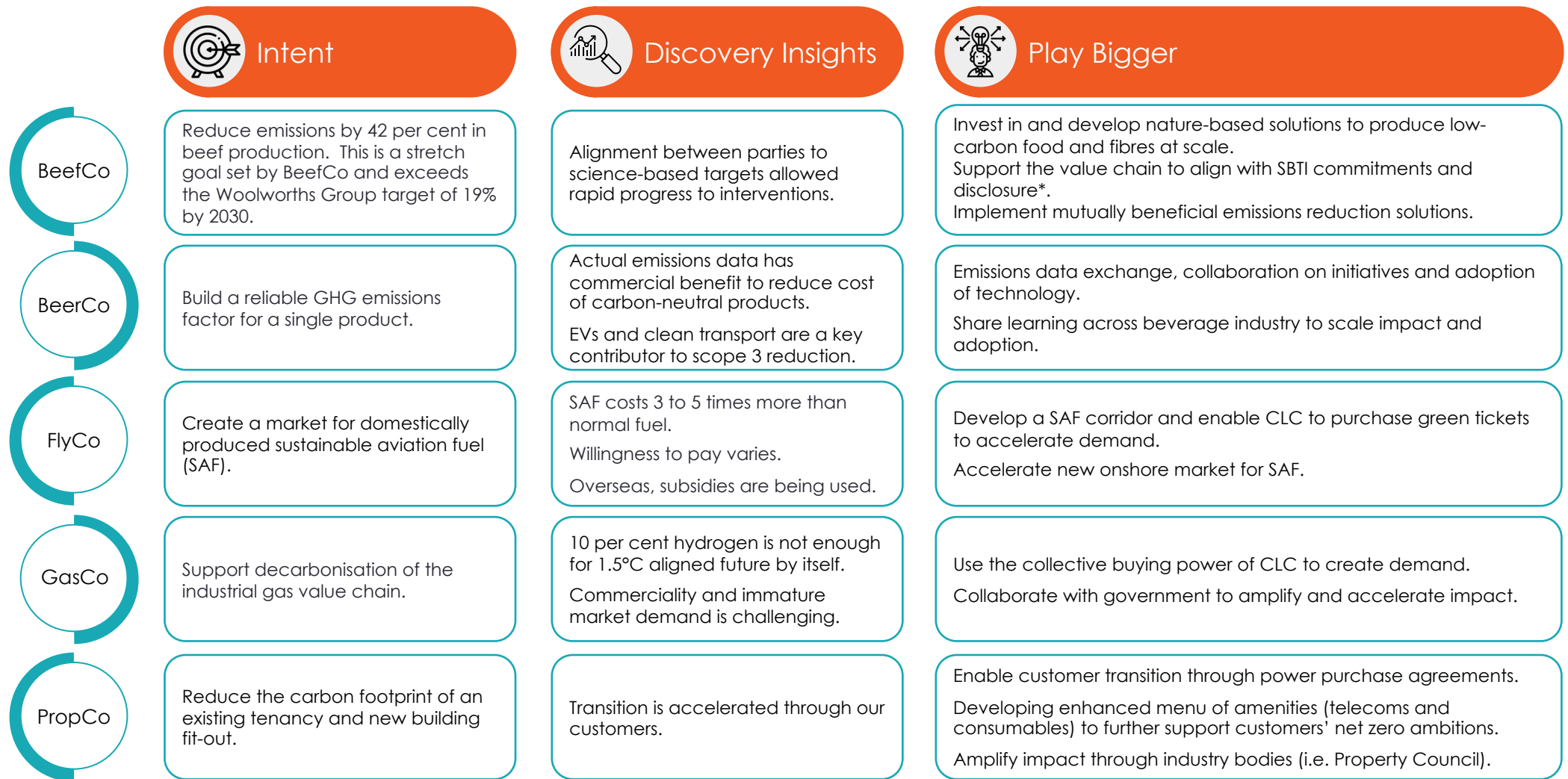
As leaders we need to think outside the box, think bigger. We need policy alignment with governments 100 per cent, because it will play such a crucial role in how effectively new solutions can be developed."
Matt Halliday
CEO
Ampol



Questions for CEOs to ask:

1. How do we become a catalyst for change in our industry and beyond?
2. What external levers can we push to accelerate change?
3. What is the potential for collective action (e.g. co-ordinated demand, creating new markets, education, advocacy)?
4. What is the appropriate role of government, and how can we productively engage with policymakers and regulators to scale initiatives to reduce emissions?

From Proofs of Concept To Scaled Impact – Where We Started To Where We’re Scaling Ambition



* Some non CLC organisations are still to set SBTi's

The Role of the CLC in Accelerating and Amplifying impact



Lynette Mayne, Executive Chair B Team Australasia, Climate Leaders Coalition Organising Committee

The need for urgent action to keep global warming within 1.5°C of pre-industrial levels this century is transforming traditional ways of working. Across value chains, international borders, government and business, new cooperative and collaborative models are required to get the job done practically and quickly.

The Climate Leaders Coalition comprises 48 Australian CEOs and their companies, many of which operate in each other's value chains or are direct competitors. Between them, they are responsible for around 25 per cent of Australia's total GHG emissions. Now in its second year, the benefits of participation are clear in terms of how and why impact can be accelerated and amplified through such forums.

- 1. CEOs leading, sharing and learning from each other** – The collective technical expertise of APA, Ampol, Incitec Pivot, Woodside Energy and Worley gave these organisations confidence that further pilots on hydrogen will not create the necessary changes. Together, CEOs can push harder for real action and solutions.
- 2. Acceleration through collective demand** – FlyCo, GasCo and other proofs of concept lead and drive solutions, but only to a point. Their scope 3 solutions are challenged by immature markets for SAF, hydrogen and electric vehicles. CEOs can co-ordinate to increase demand with a view to growing new markets, onshore industries and economic opportunity.
- 3. Lived experience of the significant challenges involved** – FlyCo and BeefCo started much later in the process. They benefited substantially from the learnings of BeerCo on data sharing, accelerating what had been a five- to six-week process into something resolvable in one to two weeks. Brisbane Airport will share its insights on SAF with global counterparts, just as Lion plans to do across the beverage industry – subject to anti-competitive considerations and ACCC permitting. From small proofs of concept, much bigger organisational, value chain, industry and global impacts grow.
- 4. Creating possibility for others** – Several BeerCo and BeefCo participants are not CLC members. However, they saw value in participating in the proofs of concept for their own relationships, strategic imperative and learning. They are now looking to bring in more connections to scale. At the same time, global bodies like the International Chamber of Commerce and World Economic Forum are recognising the value of practical scope 3 insights in scaling the movement.
- 5. Joining the dots on the systems change required to amplify impact** – Proofs of concept focused on different products, industries and scopes. To meet a 1.5°C aligned future and enable scope 3 transition at scale, new business models and partnerships, kickstarting of immature industries and connection to natural capital is required.



CEO Call to Action



Join us in getting started on addressing scope 3 now

Define your future value chains, test, learn and scale solutions.



Form new partnership models

Work together, across industry, with government and community to amplify impact.



Support immature markets

Lead and accelerate the transition to new industries more quickly.

“This is a long-term strategy that takes proactive partnership and engagement, and input and output metrics. Methodical planning and discrete steps are essential.”

David Thodey
Co-Chair
Climate Leaders Coalition





BeefCo Low-carbon beef

Participants: Ampol, Elders, Greenstock, Hilton Foods APAC, Teys, Woolworths Group

“This proof of concept showed us that capability building is one of the great unlocks in spurring action throughout the value chain. Rising tides lift all boats and together we can multiply the impact of our individual efforts by sharing our knowledge and learnings.”

Brad Banducci
CEO
Woolworths



42% emissions reduction in the beef value chain to align with 1.5°C

The challenge: Find opportunities with the biggest impact to reduce the paddock-to-shelf emissions intensity of 1000 trays of 500g beef mince. The beef was sourced by Greenstock from farms near the NSW-QLD border and Elders' Killara Feedlot, processed at Teys Tamworth facility, packaged at Hilton Food's Brisbane plant and sold in a Woolworths' supermarket in Brisbane.

Lessons learned:

- Woolworths Group executed its proof of concept within three months, accelerating the process through a laser focus on what it wanted to achieve. It brought the right people to the table, aligned with its partners on science-based targets, and applied learnings from more progressed proofs of concept (i.e. data-sharing arrangements).
- The benefits of knowledge sharing, including its ability to accelerate capability building across the value chain, was thematic for BeefCo. A large variation in capability and resources exists across value chains. Some businesses have not had the benefit of spending much time looking at interventions or understanding where emissions come from. Being part of this group accelerated their progress.

- There are more solutions than an individual company might realise. Coming together to solve problems as a collective uncovered many different solutions that individual businesses had not considered. The group identified 25 proposed interventions, which were shortlisted to 12 by plotting them on an impact and feasibility (technical and time-based) axis.
- Nature-based solutions are pivotal to a 1.5°C aligned pathway for the beef industry. However, market-based mechanisms are incentivising farmers to sell abatements (i.e. carbon sequestration) to companies outside the value chain rather than offsetting emissions from their own herd.
- Interventions with the greatest impact required the highest degree of collaboration.
- Commerciality was a consideration but did not inhibit innovative ideas. After identifying 25 ideas, commercials will determine priorities.

The way forward: Members of BeefCo have agreed to continue working collaboratively to support the implementation of value chain interventions. Each party will be explicit about priorities, outcomes and timing to implement initiatives to reduce emissions across the value chain.

BeefCo

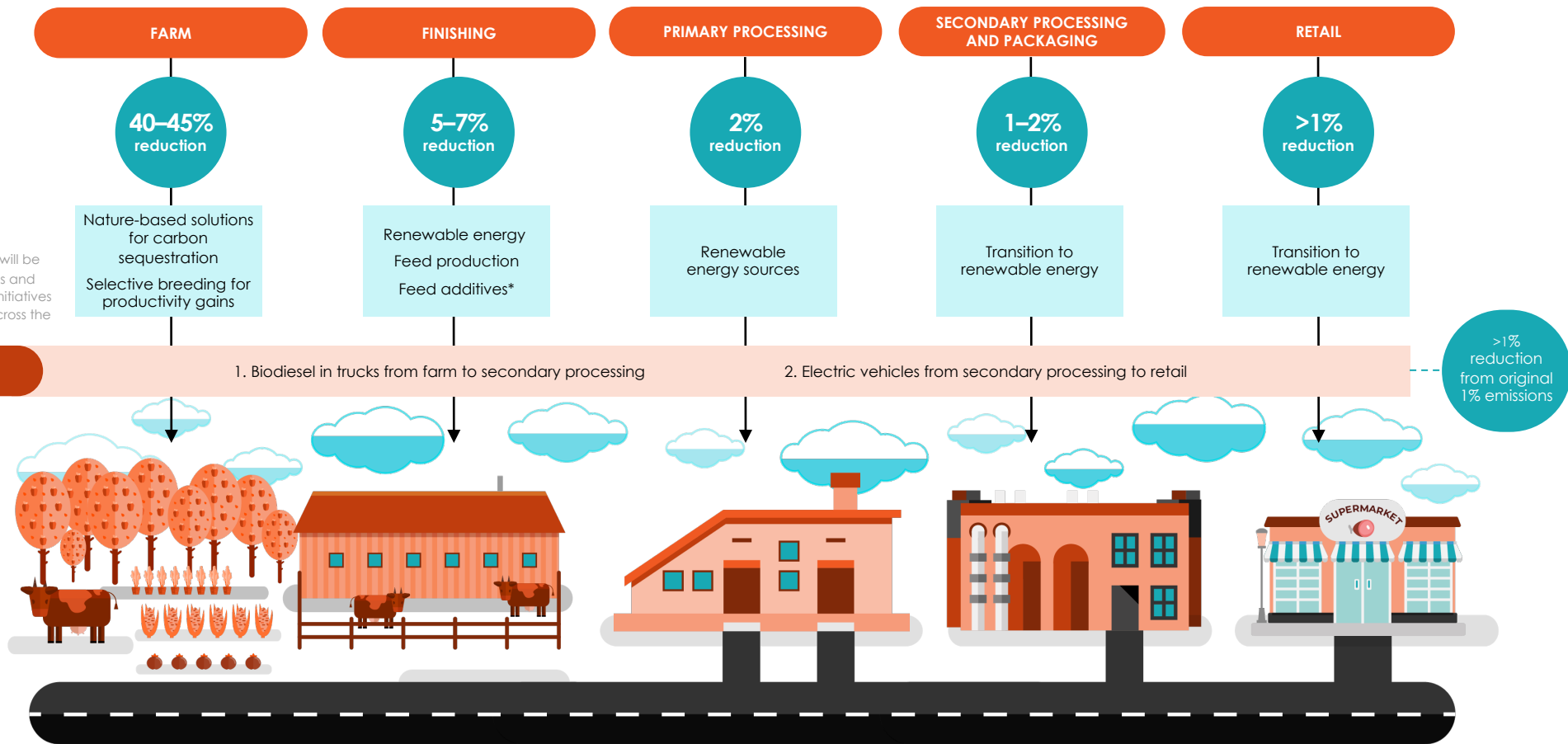
We identified opportunities to exceed our 42 per cent reduction target in scope 3 emissions across the value chain.

Together, we can achieve a 1.5°C aligned value chain

BEEFCO VALUE CHAIN

INITIATIVES

To achieve our goals together, each party will be explicit about priorities and timing to implement initiatives to reduce emission across the value chain.



TOTAL EMISSIONS BEFORE INTERVENTION



* suppliers still exploring viability of this before full commitment to feed additives



BeerCo Towards carbon-neutral XXXX Gold

Participants: BevChain (Linfox), Boortmalt, Coles, Lion, Visy, Viva Energy

“We have our plan for CO₂ reductions by 2030 in place, in line with our 1.5°C SBTi commitment. This plan includes reductions in Australia. The order of the implementations is under constant evaluation in line with global changes on cost of energy and opportunities for funding improving the business case.”

Yvan Schaeppman
CEO
Boortmalt



11% reduction in estimated emissions through use of custom emissions factor rather than third-party benchmarks*

The challenge: Obtain actual emission factors along the value chain of beer production. Agree on a measurement standard and calculate a reliable carbon footprint for XXXX Gold beer brewed at Tooheys Brewery in Sydney. Using the agreed footprint as a basis, begin collaborating on projects that will reduce collective emissions along the value chain.

Emissions footprint of this product per bottle: 1.23kg CO₂e/litre*

Lessons learned:

- Data sharing was one of the biggest challenges faced by BeerCo. Suppliers met for the first time as an entire value chain with the added expectation of sharing actual emissions data. This requires a new level of trust.
- Be patient and give the support required. Even those with strong relationships took time to build the trust required to share actual emissions data.
- Allow suppliers to get comfortable with the data before sharing it – many are collecting and calculating this for the first time themselves.
- Expect concerns around the accuracy of data and its commercial sensitivity. BeerCo worked through what it would take for everyone to be comfortable. This included a data-sharing agreement (stating data would not be used to renegotiate procurement) and a ‘data custodian’.

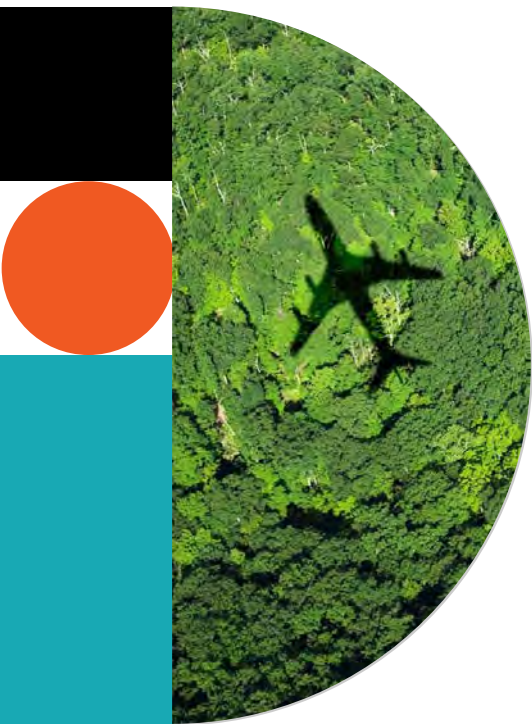
- Be ready for inconsistencies in the boundary of data. Some suppliers provided scope 1, 2 and 3 emissions intensity of the product or service and others their scope 1 and 2 emissions intensity. Further work was needed to understand boundaries and inclusions of source emissions and calculate the scope 3 emissions for these suppliers to avoid double counting. Estimates were then used to address missing primary data.
- Agree on a preferred standard early. BeerCo chose ‘Climate Active’, noting it was as good as any given the Australian market.

The way forward: Ongoing collaboration and exchange of primary data.

Exploration of technology platforms that facilitate scope 3 data sharing as well as feasible cost-sharing models.

Scale learning across the industry, leveraging the reach of Coles and BevChain (Linfox). Coles has committed to 100 per cent renewable electricity to remove emissions associated with the electricity used for storage and refrigeration. Visy has undertaken a life-cycle assessment on the glass it supplies to Lion and has plans to increase the average recycled content across its glass plants. BevChain (Linfox) will expand its fleet of net zero emission vehicles. Lion provides 100 per cent renewable energy to BevChain (Linfox)'s electric fleet through its renewable power purchase agreement. Lion will consider and prefer offsets from farms supplying barley to Boortmalt.

* Based on the actual FY21 baseline emission for the value chain



FlyCo Low-emission domestic air travel

Participants: Ampol, Brisbane Airport, Deloitte, Qantas, Viva Energy

“Aviation is a critical and irreplaceable industry and service. Using sustainable aviation fuel is the single biggest direct action we can take to reduce our emissions.”
Alan Joyce
CEO
Qantas



The challenge: Enable domestic production of sustainable aviation fuel (SAF) by creating a domestic market for SAF through the establishment of an East Coast SAF Corridor.

The biggest challenge to scaling current SAF production and use is cost across the value chain. Wider production and uptake is limited by the cost premium – SAF currently costs 3 to 5 times as much as traditional jet fuel.

3-5x

the cost of sustainable aviation fuel compared to traditional jet fuel

What is SAF? SAF is currently produced from sustainable bio-based feedstocks (i.e. corn, plant oil, algae) and has the potential to provide a lifecycle carbon reduction of up to 80 per cent compared to the traditional jet fuel it replaces. In the future, it may also be produced from green hydrogen using power-to-liquid technologies.

Lessons learned:

- The level of ambition, drivers, concerns and speed to market for each value chain partner need to be understood and communicated openly.
- The constraints to market growth in the absence of any focused policy or market incentives in Australia include demand and supply insecurities, feedstock aggregation logistics and high upfront capital costs
- Building an Australian SAF industry is constrained by competition for development capital and investment from countries with more supportive government policies.
- A significant education campaign is required to convince people that SAF is safe and affordable. Airlines, industry and government need to drive low-carbon air travel demand using their one-on-one relationships with consumers through marketing.
- Resolving the commercial side of SAF deployment will be an ongoing

process requiring inputs across finance, procurement and sustainability teams. This will require top-to-top agreement across organisations, supported by KPIs.

- Transparency is essential to airlines, corporates and customers to mitigate any criticism around the use of carbon offsets and SAF. Without data-driven transparency regarding cost and charges, airlines risk losing community and consumer support.
- Certification of SAF from feedstock to wing must be harmonised and robust to assure legitimacy as a viable solution for low-carbon travel.

The way forward:

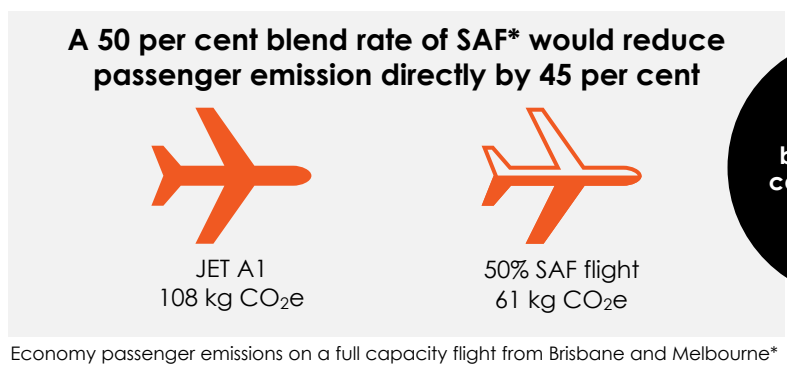
Sustained cooperation across all key players in the value chain.

Corporate customers and CEOs looking to reduce the impact of their business travel can generate demand through a buying group of CLC members willing to pay a premium for green flights to reduce their own scope 3 emissions. This will send a signal across the SAF value chain to invest in SAF and accelerate the ramp up of domestic SAF production.

Critical enablers, such as traceability and crediting of SAF through the system, should be in place before green flights are launched.

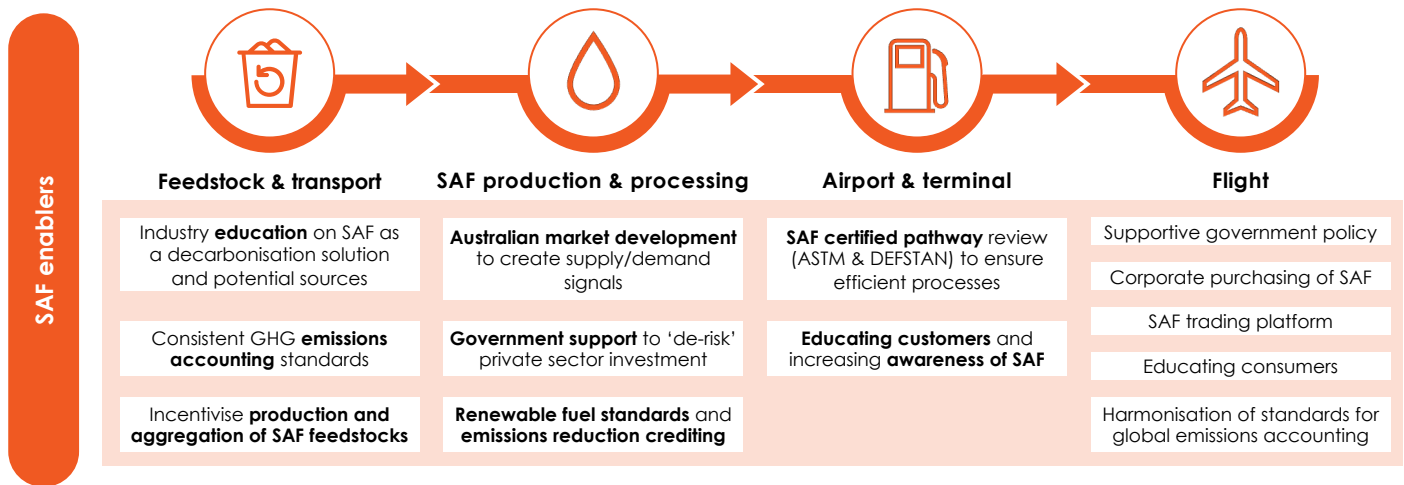
FlyCo

The role of sustainable aviation fuel (SAF) in reducing passenger emissions 45 per cent and the opportunity to amplify demand and impact through collective buying power.



Collective buying power can accelerate uptake

Next year the world will celebrate 120 years since the Wright brothers invented powered flight. What a gift to the planet if we marked this moment by charting a pathway to more sustainable aviation.
 Gert-Jan de Graaff
 CEO
 Brisbane Airport

CEO Actions

- Awareness and education on scope 3 related to travel and transport**
- Awareness and education on emerging options to reduce emission travel and transport
- Advocate immediate use of SAF for corporate air travel
- Take a leadership position by purchasing SAF tickets

Amplifying impact – SAF demand for domestic production

Our Collective Goal

Leverage the collective buying power of the Climate Leaders Coalition for SAF on a corridor from Brisbane to Melbourne, operated by Qantas and known as the 'East Coast SAF Corridor'. The ultimate impact is to create enough demand for SAF to enable domestic production.



Provide Climate Leader Coalition members with the opportunity to purchase 'green' tickets for flights on the East Coast SAF Corridor, targeting 3 per cent (of 2019 volumes) of nominated flights during the period 2024 to 2026**

*Refers to SAF with 90% emission reduction in comparison to fossil and based on a sugar cane waste pathway with a 50 per cent blend rate (using NGERs factors). **This target is indicative of rateable SAF supply logistics. CLC members may choose to participate at a higher (or lower) level (or not at all) once the commercial offering is finalised. To avoid doubt, any SAF premium will be prorated across the CLC member flights to avoid any cost discrepancies between CLC members electing to fly using SAF.



GasCo

Decarbonise natural gas as an energy source for industrial use

Ampol, APA, Incitec Pivot, Woodside, Worley

The challenge is defining a pathway that starts reducing emissions now, on the way to further reducing emissions in the future as markets develop, technology improves and costs are lowered.”
 Meg O'Neill
 CEO
 Woodside



10% hydrogen blend can't deliver a 1.5°C future on its own by 2030

The challenge: Support decarbonisation of the industrial process of refining oil for SAF, diesel and unleaded petrol at Ampol's Lytton refinery in Queensland, and ammonia production at Incitec Pivot's Phosphate Hill facility using a 90:10 natural gas and hydrogen blend. Participants do not have an existing relationship, so a hypothetical value chain was established with gas extracted from Woodside's sites and piped through APA's network.

Total value chain footprint of natural gas from extraction to industrial gas end user: 61 kg CO_{2e} per gigajoule.

Reduction (CO_{2e}) required for a 1.5°C pathway: ~15 per cent by 2030

Lessons learned:

- The biggest challenge for GasCo was the commercial models to lower the premium of reducing emissions from natural gas and how that relates with the distribution of benefits. 'Who pays?' remains the number one question of all proofs of concept.
- Assess how similar your scope 3 reduction ambitions are with others in your value chain.
- Bring technical experts in early to align outcomes. Assessing the reduction needed for 1.5°C transition for industrial gas

usage by 2030 highlighted the need for a 40 per cent H₂ blend.* This presents technical and commercial challenges and reinforces the need for a suite of actions to decarbonise industrial gas. GasCo considered biogas to make up the shortfall.

- Map value chains with everyone in the room. Your actual value chain might differ substantially from your existing maps and ideas.

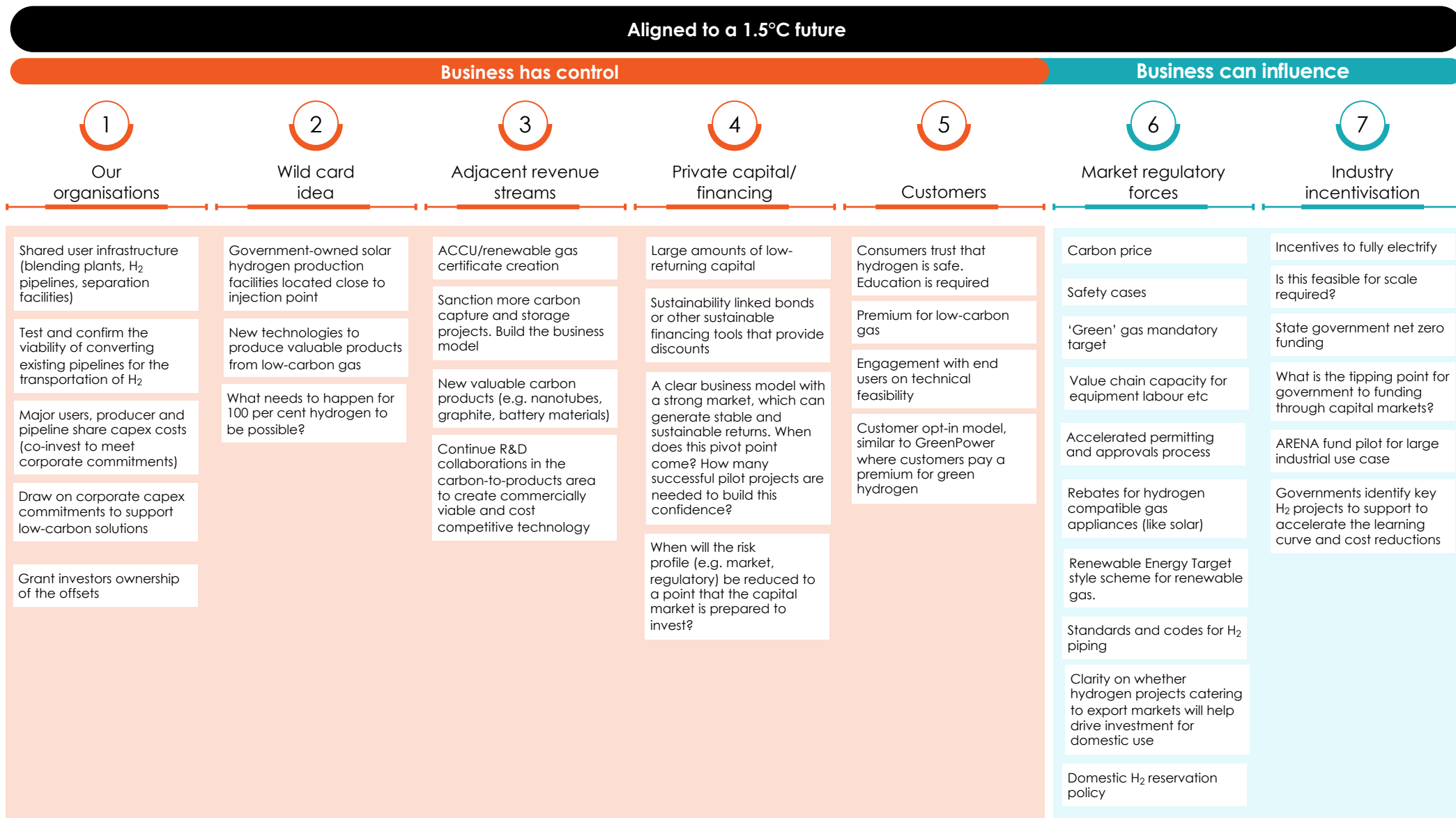
The way forward: Consider establishing a pooled offtake agreement of CLC heavy industrial gas users who are willing to pay a premium to support the investment required to decarbonise the use of gas in heavy industry.

Advocate for supportive policy intervention, akin to the Renewable Energy Target scheme for the gas sector, to ease the financial burden of transition.

Financiers are going to require the risks – regulatory, operational and market demand – to be reduced before 'at scale' financing can be enabled. Most new energy/hydrogen projects will be looking to achieve double digit returns but would be impacted by the uncertainty and risk effect on weighted average cost of capital. Further detailed exploration of technical feasibility will be required alongside financing decisions.

*Based on Method 2 NGER emissions factors calculated using gas chromatograph (GC) measurement of actual gas composition to the IPL Phosphate Hill facility (current EF) and an Aspen HYSYS modelled gas composition containing various H₂ blends by volume

GasCo Exploration of what it will take commercially for hydrogen blending to be viable



Source: GasCo working session (July 2022) on commercial implications and model



PropCo Decarbonise commercial buildings

Participants: Deloitte, Dexus, Ramsay Health Care, Schneider Electric

“Customers and investors increasingly desire strong climate action and low-carbon investments. We are responding to those needs across the value chain, collaborating to discover scalable solutions.”
Darren Steinberg
CEO
Dexus



The challenge: Reduction of Dexus's downstream scope 3 emissions within commercial building tenancies, including reducing carbon footprint of existing tenants Ramsay Health Care in their North Shore Health Hub (NSHH) and exploring how Deloitte's new tenancy and fit-out in Brisbane Waterfront can reduce emission intensity through circular economy principles.

47%

of emissions abated in Deloitte's office relocation by incorporating circular economy principles

Approximate carbon footprint of Deloitte's 12,865 m² Brisbane office fit-out: 6,500 tonnes CO₂e*

Lessons learned:

- Scope 3 can be overwhelming. Narrowing the scope to focus on emissions sources, boundaries and materiality eliminates some of the noise. Boundaries were initially complex to delineate.
- Circular economy principles create value and reduce emissions.
- There is an early-mover question of how the cost of transition will be shared. Long-term, low-emission services, such as renewable energy, will become a common sustainable building expense for all customers. Right now, it is optional, requiring leadership from landlords to reduce base building emissions, together with flexible and scalable solutions to help like-minded customers to reach whole building net zero emissions.
- Carbon-neutral reporting for built environment is mature compared to other industries. Experts in Climate Active Standards, NABERs, Green Star and GHG Protocols were fundamental to progress.
- Ambition is often greater than the systems and processes required to deliver decarbonisation solutions. The scope 3 journey will take time.

The way forward: For Dexus, electricity use is the main contributor to scope 3. They have established a GreenPower Buyers Group.

To increase the existing high standard of energy efficiency in the NSHH, Dexus is procuring 100 per cent renewable electricity for energy use in the base building.

Dexus and Ramsay will address additional carbon reduction opportunities from energy to waste. Ramsay will add an organic waste stream to further raise its good recycling rates and will explore switching to 100 per cent renewable electricity at the NSHH. Ramsay will also apply learnings to older buildings and company-owned facilities.

Deloitte, in collaboration with Dexus, aims to abate 47 per cent of the emissions from the fit-out of its new office by reusing glass, metal and furniture from its existing premises. It will substitute metal for sustainable timber and design out waste with more open spaces.

Dexus is developing further support to customers' net zero ambitions. It wants to share building performance data to help customers like Ramsay with their disclosures and measurements, while collaborating on areas of overlap (e.g. waste and fit-out). Its next frontier is integrating low-carbon construction products upfront in its developments.

* high-level estimate

PropCo

Layers of a building with their relevant emissions resources and how Deloitte, Ramsay Health Care and Dexu are addressing them



“Collaboration will be key to helping drive climate action. Partnerships in non-traditional areas (e.g. landlords and tenants) and across sectors and value chains will lead to innovation and shared benefits.”

Carmel Monaghan
CEO
Ramsay Health Care



Decarbonising buildings

Consumables Life span daily to monthly	Waste, paper, organics, stationery, electricity, cardboard, water, natural gas	Tenants in control of emissions Influences Dexu's downstream scope 3
Space Life span 3 years	Furniture fit-out, partitions, tables, chairs, desks, technology, whitegoods	Dexu's influence through building guidelines and provision of services
Services Life span 7–15 years	Aircon units, lifts, elevators, waste units, water heating units	Dexu – in control of base building emissions Influences tenants upstream scope 3
Skin Life span 20 years	Building facade, flooring, plasterboard	Tenants may start to influence through choice
Structure Life span 30–300 years	Foundational structure of the building	

DELOITTE – WATERFRONT

Focused on space and initiatives

Focus Embodied emissions and circular economy principles

- Reuse material through upcycling
- Reuse materials by designing out waste
- Substitute materials by changing out metals to timber

47% overall reduction

9% 14% 24%

Percentage reduction

RAMSAY HEALTH CARE – NORTH SHORE

Focused on consumables and initiatives

Focus Waste and waste optimisation

- Leasing space in a building with net zero base building emissions
- Sourcing 100% renewable electricity for tenancy
- Waste recycling initiatives

98% overall reduction

51% 39% 8%

Percentage reduction

Working together with tenants to reduce emissions
Enable transparency of customer performance data

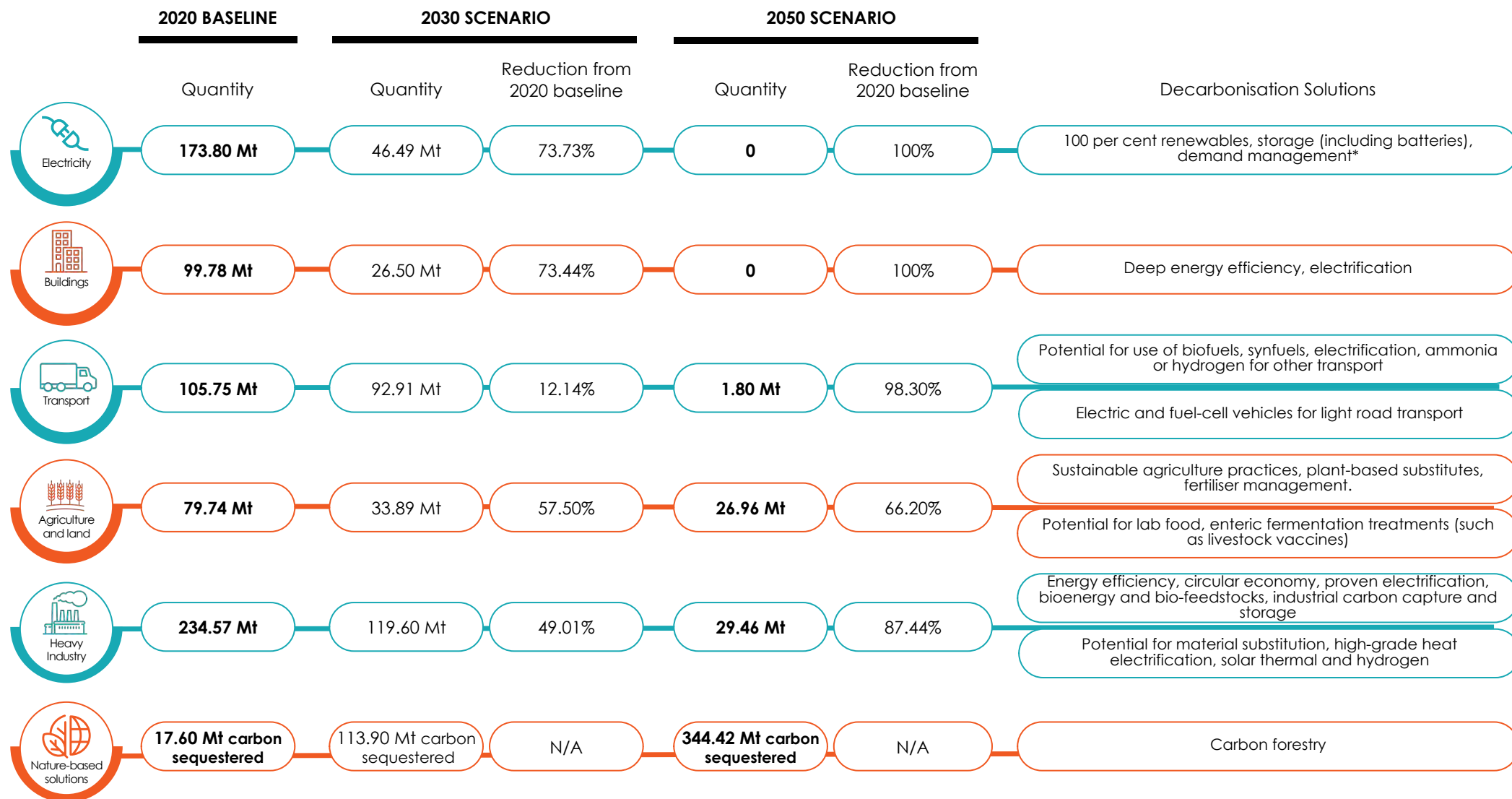
- GreenPower
- Waste/ materials recycling programs
- Energy and water efficiency programs
- Low-carbon construction products
- Furniture recycling and re-use
- Sustainable transport amenities
- Future options

DEXUS

Source: [Building Shearing](#)

*These approximate numbers are related to Ramsay Health's head office tenancy at the NSHH, not its hospital-related waste or energy use.

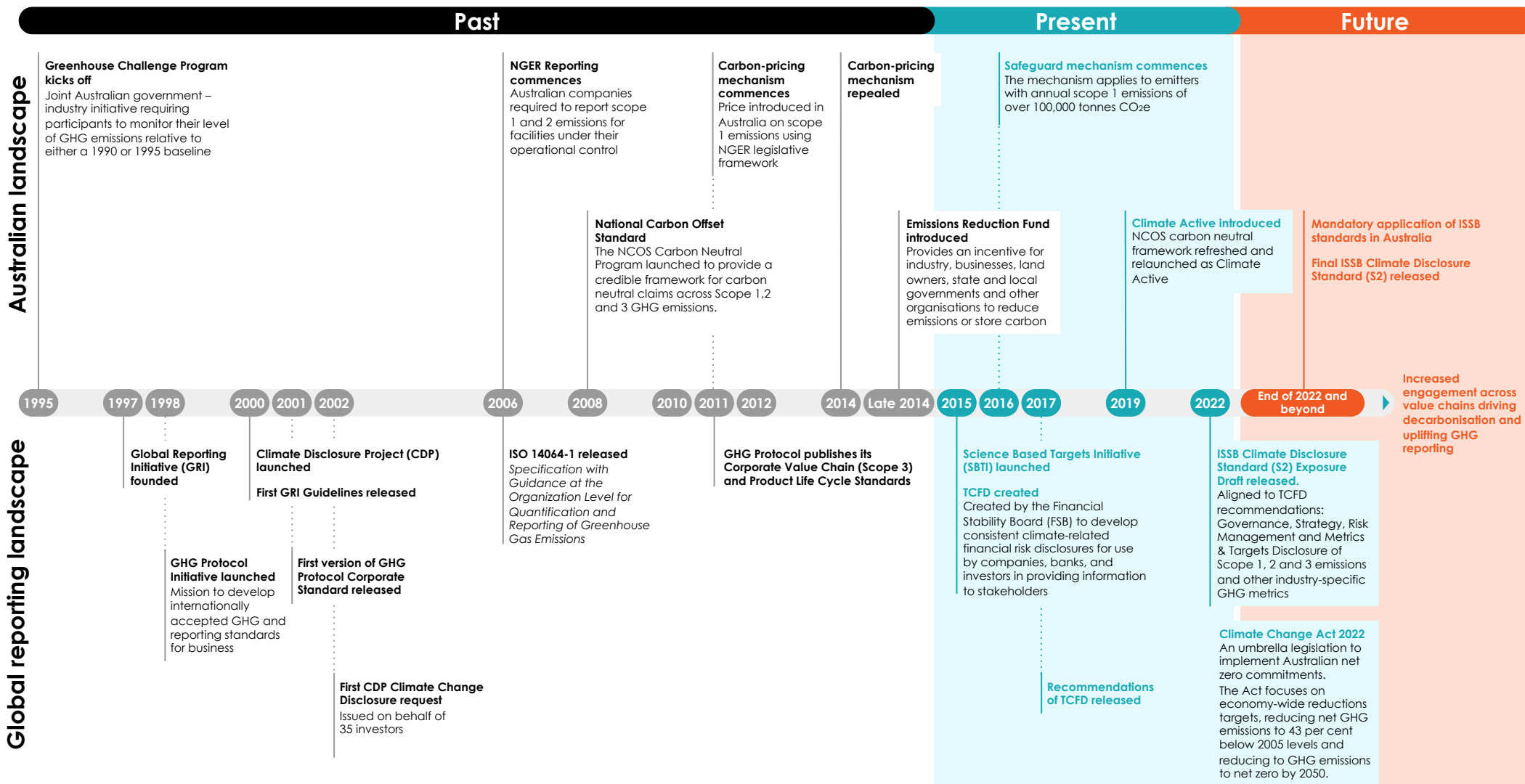
Sector Specific Roadmaps to a 1.5°C Future – not representative of specific CLC commitments



Source: Adapted from Climateworks Decarbonisation Futures (Australia only)

* Electricity storage and flexible capacity required to ensure system reliability

The Growth of Carbon Transparency Requirements



Source: PwC Australia

Acknowledgements

The Climate Leaders Coalition (CLC) CEOs acknowledge the many people involved in leading this work with passion, open minds and a willingness to get stuck into what is needed to address scope 3 together.

To the CEOs involved, especially those who provided leadership over the proofs of concept:

**BeefCo**

Brad Banducci (Woolworths Group)

**BeerCo**

Stuart Irvine* (Lion)

**FlyCo**

Gert-Jan De Graaff (Brisbane Airport) and Scott Wyatt (Viva Energy)

**GasCo**

Matt Halliday (Ampol)

**PropCo**

Darren Steinberg (Dexus)

and **the technology enablement experts**, Steven Worrall (Microsoft) and Damien Bueno (SAP):

Your leadership and willingness to do things that have never been done before is inspiring. Thank you for focusing your time and people on this work.

* CEO throughout Scope 3 Roadmap development and now a member of the CLC organising committee

To our co-leads of this work, Joanne Bowen (PwC Australia) and Judy Slatyer, (Climate Leaders Coalition Organising Committee):

Thank you for working together to deliver this initiative, for your leadership from the edge, dedication to impact, commitment to find a way, belief in ideas and the power of collaboration, and energy for the occasional push.

To the CEO delegates who willingly stepped into new territory, supported and learned from each other:

This work is yours to be proud of. Scale up and share it with others.

To the CEOs and delegates not formerly part of CLC:

Thank you for seeing the value, trusting the CEO ambition and infusing essential supplier voices into this work. The strengthened relationships are just the beginning. We look forward to continuing to work together.

To our proof-of-concept project managers and subject matter experts from across PwC Australia, Climateworks Centre, Microsoft, Deloitte and SAP:

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Your leadership and motivation, collaboration, systems change and technical expertise, as well as conviction to 'not let perfect get in the way of progress' has deepened the progress, impact and success of this complex problem to be solved.

Thank you all. This is just the beginning!

“Addressing scope 3 emissions requires us to work outside traditional value chains and build trusted relationships with suppliers, customers and other stakeholders. PwC Australia is proud to have partnered with the Climate Leaders Coalition, bringing expertise in collaboration, emissions measurement, reporting and transparency.”

Tom Seymour
CEO
PwC Australia



CLC Member CEOs

Damien Nicks
Interim CEO
AGL

Matt Halliday
Ampol

Adam Watson
APA Group

Kym Pfitzner
Australian Red Cross

George Frazis
Bank of Queensland

Edgar Basto
Chief Operating
Officer, BHP

Alastair Symington
Blackmores

Gert-Jan De Graaff
Brisbane Airport

Matt Comyn
Commonwealth
Bank

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Citigroup

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Deloitte Australia

Darren Steinberg
Dexus

Grant Fenn
Downer Group

Mark Collette
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Mark Hutchinson
Fortescue Future
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Greg Goodman
Goodman Group

Tristan Harris
Harris Farm Markets

Jeanne Johns
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Frank Tudor
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Chairman/Founder
Light Warrior

Sam Fischer
Lion

Steve Worrall
Managing Director, Microsoft
Australia & New Zealand

Susan Lloyd-Hurwitz
Mirvac

Ross McEwan
National Australia
Bank

Sandra Martinez
Market Head,
Oceania Nestlé

Sanjeev Gandhi
Orica

Frank Calabria
Origin Energy

Alan Joyce
Qantas

Carmel Monaghan
Ramsay Health
Care

Kellie Parker
Rio Tinto

CLC Member CEOs (continued)



Damien Bueno
President and Managing
Director SAP Australia



Elliott Rusanow
Scentre Group



Gareth O'Reilly
Zone President Pacific
Zone, Schneider Electric



Eric Swift
ServiceNow



Alistair Field
SIMS Metal



Mark Nielsen
Talent
International



Inaki Berroeta
TPG Telecom



Nicky Sparshott
Unilever Australia



Dean Banks
Ventia



Scott Wyatt
Viva Energy



Rob Scott
Wesfarmers



Meg O'Neill
Woodside Energy



Brad Banducci
Woolworths Group



Chris Ashton
Worley

Non-CLC Member participating CEOs



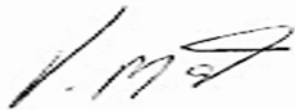
Mark Mazurek
BevChain (Linfox)



Yvan Schaeppman
Boortmalt



Mark De Wit
Visy



Pat McEntee
Hilton Foods APAC



Andrew MacPherson
Teys Australia



Tom Seymour
PwC Australia

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Disclaimer: The information contained in this scope roadmap is accurate at date of publication 22 November 2022.

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