TRIPLE WIN FOR MARKETERS

How better data can reduce emissions without compromising performance and investment

AD NET ZERO

ALL FOR NONE

THE RISING IMPERATIVE TO ACT

Businesses aren't dealing with climate change as a distant, environmental issue anymore. It's affecting supply chains, insurance costs, operations, customer behaviour, brand trust, and, ultimately, businesses' bottom line. Boards are recognising it as a commercial risk, not a corporate and social responsibility (CSR) issue. In Australia and many other parts of the world, that shift is being accelerated by regulation.

Mandatory climate reporting under frameworks like AASB S2 is bringing much greater scrutiny to how organisations measure and disclose emissions. Not just within their own operations, but across their value chain.

Regulation might be the catalyst, but expectations are rising. It's no longer enough to disclose; companies are increasingly expected to measure consistently, show progress, and demonstrate a credible pathway toward climate targets.

This momentum is driven by customer demand and board-level concerns for resilience.

WHY THIS MATTERS FOR MARKETING

How a company demonstrates and communicates its climate transition is a core concern for overall brand and reputation.

Investors, regulators and the market now have far greater visibility and far less tolerance for vague or poorly-evidenced disclosures.

In short, sustainability is now actively scrutinised, with reputational impact.

Vitally, it's no longer just about measuring and reporting on greenhouse gas emissions within the direct control of a business (referred to as Scope 1 and 2 emissions) but across the entire value chain (Scope 3 emissions). This includes how products are made, how services are delivered, and how companies operate through their partners and supply networks.

From digital infrastructure and data to media and ad production, marketing activity is embedded within this broader value chain. As this paper shows, the scale of emissions to address can be considerable, and above the threshold of materially significant.

As organisations are increasingly expected to show climate progress, not just intent, value chain emissions are in sharper focus.

For marketers, this is a shift.
Marketing hasn't traditionally been part of emissions conversations, but it is now.

MARKETING AT A CROSSROADS

Marketing leaders have an opportunity to gain a more substantive role in shaping how sustainability is delivered through the business, not just communicated externally.

Those who don't engage with their organisation's sustainability strategy risk having the emissions they control tied to broad spend-based estimates that tell only a fraction of the story. This leaves marketers with few options but to cut budgets to support their company's decarbonisation journey.

The alternative for marketers is to become active agents in the decarbonisation journey by sourcing data that can tell the full story.

This is referred to as 'activity-based data', and it comes with multiple co-benefits: providing a pathway for reducing emissions without compromising spend or effectiveness - and very often, increasing campaign performance.

THIS PAPER SUPPORTS MARKETERS IN SEIZING THIS OPPORTUNITY BY PROVIDING:

- Evidence of marketing's climate impact and scale within an organisation
- A playbook to reduce this impact, using granular data to lower emissions without impacting budget or performance
- Examples of brands already gaining tangible business benefit from data-driven action on marketing's emissions

THE CHALLENGE:

ADVERTISING'S INVISIBLE CARBON FOOTPRINT

Unlike other parts of a business, marketing spend is fragmented, spread across agencies, vendors, platforms, production partners and technology providers, with costs sitting in different budgets and procurement categories.

As a result, emissions are equally fragmented: hard to isolate, harder to quantify, and rarely clearly attributed to a single decision or owner.

That fragmentation has meant marketing emissions have often been overlooked or treated as immaterial within broader carbon accounting.

However, this is far from the truth. The growing importance of measuring, disclosing and demonstrating progress in reducing value chain emissions makes marketing a material consideration.

What causes advertising's climate impact?

When people think about the carbon footprint of advertising activities, they tend to focus on tangible elements such as production shoots, promotional material and printed posters. In reality, digital elements often have a far bigger impact due to power-hungry servers and tech stacks. For media, that impact is scaled across millions of impressions, each with its own complex supply chain.

Data from WPP's 2019 baseline value chain emissions [Sustainability Report] gives an example of where emissions sit across the advertising ecosystem. The majority (54%) come from media, with creative production accounting for a further 14% of emissions. Enterprise technology, used in the planning and buying process, represents a further 6%.

54%

of WPP's baseline value chain emissions across the advertising ecosystem stem from media buying[1]

[1] WPP Sustainability Report 2025

The scale of the problem

Estimates place advertising's contribution to global greenhouse gas emissions at between 2% and 4%[2]. However, this obscures the impact within an individual organisation, which can be considerably higher.

This is further complicated by variation between industries. For example, advertising can be a significant source of emissions in service-led or consumer-facing industries such as finance, retail, travel or telecoms, but tends to be less material in those with large manufacturing and distribution footprints.

To address this, Ad Net Zero Australia worked with carbon and climate disclosure specialists 2XE to quantify how much advertising actually contributes to organisational supply chain emissions. As far as Ad Net Zero is aware, this is the first time this data has been surfaced in Australia.

[2]*Estimates based on sources including: https://pwablo.be/en/blog/digital-carbon-footprint-global-emissions/*

Advertising's material contribution

2XE's analysis found that advertising-related activities account for, on average, more than 5% of an organisation's upstream Scope 3 emissions. Upstream emissions relate to goods and services that a company purchases or acquires, including their advertising.

The proportion varies by organisation and sector. It may be lower for businesses with substantial supply chain emissions from areas such as packaging or manufacturing, but for many organisations it exceeds 5% and can even be one of the largest sources of upstream Scope 3 emissions.

The contribution is particularly high in sectors where advertising is a key driver of growth. According to 2XE's review, advertising represents around 16% of upstream Scope 3 emissions for Government, Infrastructure and Public Services, and around 9% for Media, Entertainment and Digital businesses.

As Nick Palousis of 2XE explains: "When a supply chain emissions source averages over 5%, it is showing up on the pie chart and deserves a plan.

"Advertising can sit alongside, and in some cases exceed, familiar Scope 3 sources such as waste or business travel.

"The difference is that action can often start without major capital deployment or impact on the organisation. Better supplier and activity data gives marketers a pathway to manage it, without defaulting to budget cuts or major business transformation."

THE KEY TO REDUCED ADVERTISING EMISSIONS WITHOUT COMPROMISE

To recap, marketers have fragmented data, limited visibility, emissions sitting across a complex value chain and a potentially sizable footprint. A challenging situation to address.

The key is data. As the saying goes, what gets measured gets managed; and what gets managed gets budgeted.

But not all measurements are created equal.

Below, we explore the two approaches to measurement, and why marketers should focus on getting activity-based data as soon as possible.

The starting point: spend-based emissions calculation

To measure emissions from marketing, most organisations will begin with a spend-based approach. This uses marketing and advertising spend and applies industry-average emission factors to estimate the carbon footprint.

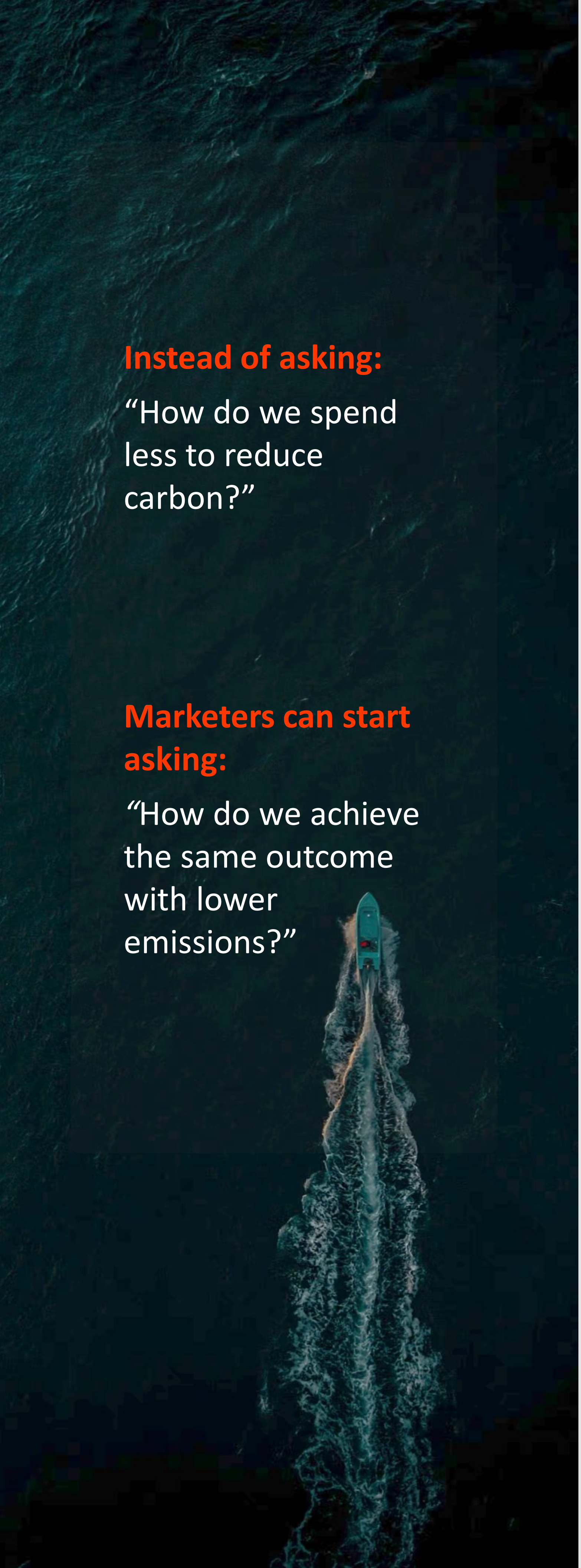
It's simple, quick to implement, and provides a useful starting point, particularly when data is limited.

But it has real limitations. By definition, it treats cost as a proxy for carbon. This means the only reliable way to reduce emissions over time is to reduce spend. But in practice, cost and carbon don't always move in the same direction.

For example: moving from low-cost, poorly optimised programmatic inventory to a more curated or direct media buy can increase cost per impression but significantly reduce the emissions associated with delivery. Under a spend-based model, that would appear as an increase in emissions, even though the underlying impact is lower.

The metric could work against the outcome.

The marketing budget is on the hook for all of its emissions, with no viable pathway to make reductions without impacting spend.



ACTIVITY-BASED DATA: THE WIN-WIN APPROACH TO EMISSIONS MEASUREMENT

Rather than relying on spend, this approach looks at what is actually happening within the activity. By linking emissions to specific suppliers, platforms, formats, and campaigns, it provides a far more accurate view of where emissions sit and what is driving them.

With a spend-based model, emissions are typically calculated retrospectively at the end of a financial year, once budgets are closed and activity is complete. At that point, it’s effectively a reporting exercise.

Activity-based measurement allows emissions to be understood at the point of planning: at the level of a campaign, a media plan, or a supplier decision. Carbon can become another variable alongside cost, reach and performance, rather than something that is assessed after the fact.

Critically, activity-based measurement breaks the assumed trade-off between cost and emissions.

THE TRIPLE BENEFIT OF ACTIVITY-BASED DATA

While activity-based data provides a clear pathway for reduced emissions, it also provides a triple benefit for marketers: reducing emissions, a lower and more accurate reported footprint, and the ability to refine the plan at the same time.

This triple benefit can be seen in the case studies in this paper, and many other published studies. For example, a meta-analysis of over 500m impressions by Scope3 found that lower-carbon media campaigns on average drove 2.6% lower CPA and 52% higher CTR, whilst cutting emissions by 29%.

Reduction:

Activity-based data provides the only way to know where carbon sits and to make informed cuts without compromising the plan.

Reporting:

Activity-based data isn’t only more accurate for reporting; the increased granularity nearly always reduces the calculated footprint – even before making any changes to the plan.

Refinement:

Activity-based data lets you cut waste from your marketing supply chain, often making it perform better too.

SAME INVENTORY, DIFFERENT CALCULATION

The example below compares three approaches to estimating emissions for the same one-week digital out-of-home (OOH) media placement.

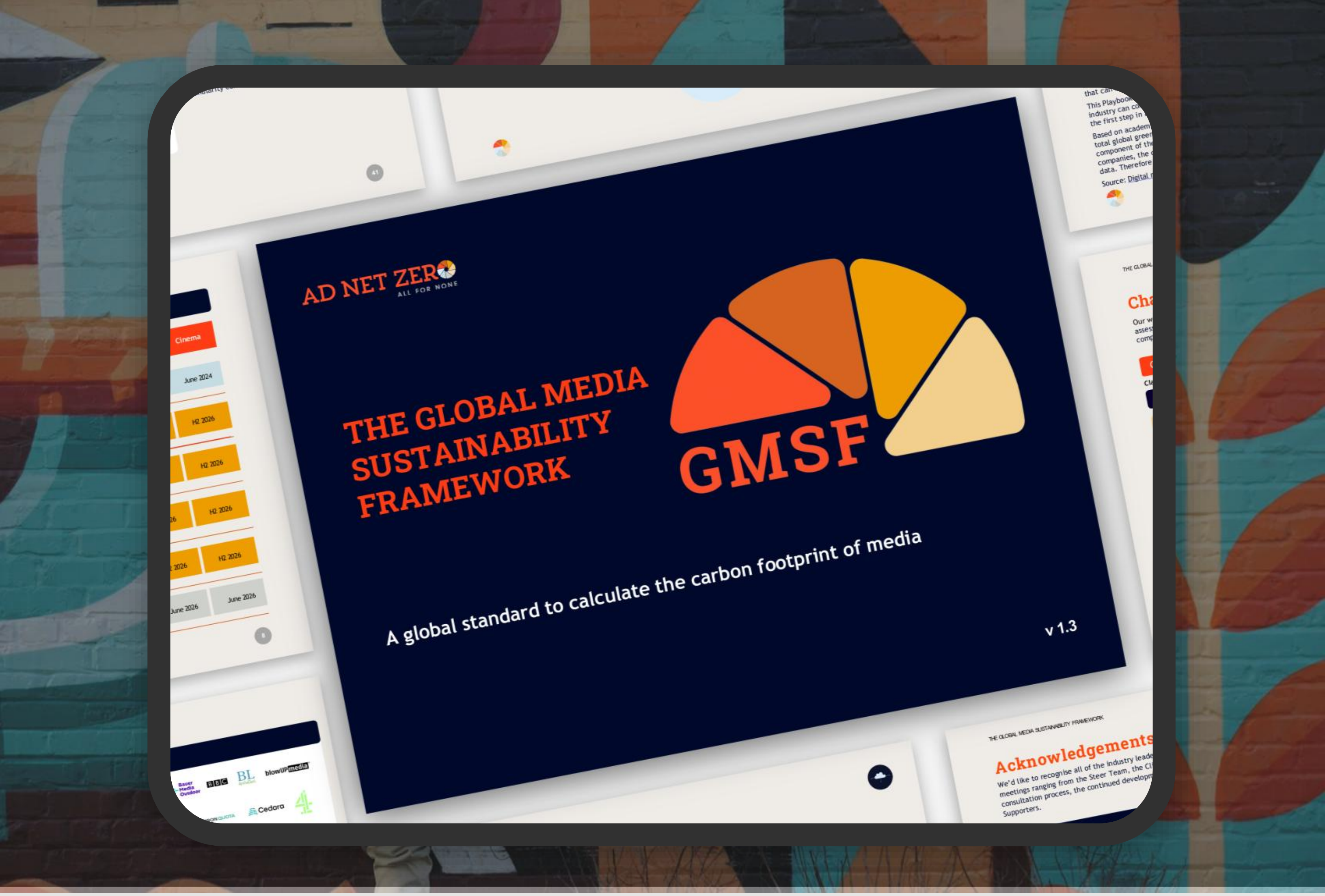
While the media inventory is identical, the calculation methodology produces materially different results.

This shows how shifting to more granular data can reduce the reported emissions, even before any changes to the plan have been made.

RATE CARD	NEGOTIATED RATE	ACTIVITY-BASED
3.6 kgCO_2e	1.1 kgCO_2e	0.7 kgCO_2e

Emissions factor provided by 2XE as a typical factor used in carbon calculations

Activity-based measurement provided by CarboniQ from Net Zero Media, using the GMSF methodology



A NEW STANDARD FOR ACTIVITY-BASED CALCULATION OF MEDIA'S EMISSIONS

If activity-based measurement is a more accurate and more useful way to manage emissions, then why isn't everyone doing it?

One of the main barriers has been a lack of consistency. There hasn't been a clear, standardised way to measure emissions from advertising across media, and the underlying data is still maturing. Different methodologies, assumptions and levels of data quality have made it difficult to compare results, benchmark performance or act with confidence.

To address this, Ad Net Zero has created the Global Media Sustainability Framework, or GMSF, in consultation with industry and sustainability experts.

It provides a voluntary standard for calculating media emissions using activity-based data. It is aligned with carbon accounting best practice and provides a consistent, rigorous approach across channels, suppliers and markets.

The framework includes:

- Agreed boundaries, inclusions and definitions
- Formulae for calculating each channel
- Data guidance, with default values and a roadmap for increasing levels of granularity
- Calculations to account for corporate overhead emissions

This framework is freely available for the entire industry and can be accessed here.

THE BUSINESS IMPACT OF USING AN ACTIVITY-BASED APPROACH

An organisation’s Scope 3 supply chain emissions typically account for the majority of its total carbon footprint - and are also the hardest to influence.

In other words, they are the emissions easiest to ignore as ‘too hard’, but with the biggest reward for those making the effort to gather granular data and identify strategies to reduce them.

That’s why moving from spend-based estimates of marketing’s impact to an activity-based approach is such a boon for sustainability – and with multiple co-benefits for an organisation:

- Spend-based calculations tend to overestimate emissions. Moving to activity-based data rewards organisations with a lower starting data point, before any real-world savings are made.
- Unmeasured marketing emissions create disclosure gaps and audit risk in mandatory reporting.
- Carbon-blind media and production decisions risk becoming climate liabilities if not addressed; when tied to spend, there is no way to reduce their impact without cutting spend.
- Activity-based measurement provides the data to identify emissions reductions without reducing spend or impacting performance.
- Emissions reduction in advertising can eliminate waste, and in turn increase effectiveness; this is a proven opportunity through numerous case studies and metadata analysis.
- Activity-based measurement empowers marketers to influence the wider market through their media investment decisions.

FROM INSIGHTS TO ACTION:

FIVE STEPS TO PUT THIS INTO PRACTICE

Marketing emissions can feel complex, but most organisations follow a similar journey. The objective isn't to become a carbon accountant overnight. It's to progressively improve the quality of data available to marketing, so emissions can be managed in the same way marketers already manage factors such as cost, reach, and performance.

1 ESTABLISH YOUR BASELINE

Start by understanding if marketing is material to sustainability efforts and identify broad areas of focus. If marketing emissions haven't yet been quantified, you can start simple; work with your sustainability team, agency partners or a specialist provider to establish an initial baseline against your existing marketing spend data.

Ask sustainability, procurement or reporting teams:

- Is marketing considered a material source of emissions?
- How are marketing emissions currently calculated?
- Which suppliers, channels or categories are included?

2 IMPROVE THE QUALITY OF YOUR DATA

Once a baseline is established, move beyond spend-based estimates toward activity-based measurement, prioritising the categories most likely to drive emissions, such as the highest-spend channels.

Ensure your marketing supply chain understands your need for this data. Many already have access to internal calculators and third-party data sets.

Ask agency teams, key vendors and marketing partners:

- What activity-level data is already available through internal calculators and third-party data sets?
- Where are the gaps, particularly in areas of significant spend?

3 ADOPT A CONSISTENT METHODOLOGY

Agree on a consistent approach to measuring emissions across suppliers, channels and campaigns. Industry frameworks such as the GMSF can be helpful. Agree on reporting boundaries and identify the data needed to support more robust measurement.

Ask sustainability teams, agencies and specialist partners:

- What best-practice frameworks exist for each marketing area?
- How might we embed reporting requirements in agency and vendor procurement?
- What trade-offs between activity-based and spend-based methodologies might we need to make?

4 BUILD CARBON INTO MARKETING DECISIONS

Start treating carbon as another planning variable alongside cost, reach, effectiveness and brand outcomes. Maintain a balanced scorecard, understanding where emissions savings are possible without negatively impacting the plan, and any trade-offs involved.

Ad Net Zero has published a guide to reducing emissions from media, which contains plenty of strategies to consider.

Ask agency and marketing teams:

- Could we build emissions reporting into our data management and campaign workflow?
- What metrics might we need to create to understand emissions in relation to marketing performance?

5 SET TARGETS AND EMBED ACCOUNTABILITY

Once emissions are visible and measurable, consider establishing reduction targets and building emissions considerations into governance processes, supplier relationships and performance frameworks.

Ask sustainability managers, agencies and marketing teams:

- How do we ensure the entire team understands the targets and their role in achieving them?
- How do we manage uncertainty and changing marketing conditions?

Progress over perfection

Measuring supply chain emissions can be daunting even for the most seasoned sustainability professional. This makes taking the first step so crucial.

Don't try to measure every single flyer and social post on day one. Focus on areas of the plan where you can make the most difference – either due to the largest footprint or the greatest opportunity for reduction.

CASE STUDY

SPECIAL BROADCASTING SERVICE (SBS)

Data Journey

When first measuring their carbon footprint, SBS's marketing activities accounted for 6% of its supply chain emissions, using spend-based calculations. Working with its media agency Hearts & Science, SBS has been on a journey to get a more accurate picture of its marketing footprint by progressively moving from spend-based to activity-based data.

SBS's marketing share of upstream Scope 3 emissions started at 6%, using a spend-based approach with industry averages (FY22).

The current position is 3% using a hybrid of spend-based industry averages, supplier-related and campaign-related emissions (FY25).

The future goal is 100% activity-based measurement across all marketing activity emissions. SBS is currently working with all marketing suppliers to achieve this goal.

6% starting point, FY22

3% current position, FY25

Activity-based data in action

Accurate data on the carbon intensity of each campaign has unlocked opportunities to decarbonise by selecting lower-carbon options and formats which still reach the target audience cost-effectively. For the recent SBS Premium Drama campaign, the broadcaster was able to serve BVOD ads at times when there was more renewable energy in the grid – across all dayparts - using Hearts & Science's Renewables Ad Engine.

This innovative use of state-level data led to a 24.6% reduction in the carbon intensity of the campaign compared to the delivery from an SBS baseline campaign. Crucially, this data-driven approach meant the campaign was still as successful at reaching the target audience.

To read more about SBS's sustainability journey, download its latest Sustainability Report here.

CASE STUDY

AUSTRALIAN ETHICAL

Australian Ethical has been using activity-based data to measure and optimise media planning and buying since 2021. At that stage, the shift from spend-based estimates to activity-based data reduced their reported media emissions by around a third.

The use of granular data has facilitated a 17% decrease in emissions intensity ($kgCO_2e$ per thousand dollars spent) across their entire digital spend between FY21 and FY24, accounting for over 75% of the budget.

Unlocking the Growth Paradox

The data identified a paradox: Out-of-Home (OOH) was the most carbon-intensive channel, yet a key growth driver for the brand. This risked undoing all the good work, putting business growth in direct conflict with environmental impact.

To address this, Australian Ethical, through their media agency Benedictus Media, worked with oOh!Media to streamline the campaign's emissions, using granular data. Emissions were cut across four areas:

1. Reduced waste through rigorous targeting
2. Running on inventory powered by renewables
3. Using 100% recyclable materials
4. Optimising creative for energy efficiency

These efforts reduced OOH's emissions per dollar spent by 63%, and emissions per thousand impacts by 82%. Overall emissions from paid media were slashed by 21%.

All of this with no compromise in campaign performance; in fact, the reduced wastage contributed to a 50% stronger uplift in brand awareness compared to the previous campaign.

"Finding a solution that reduced our advertising emissions without impacting the campaign performance was important to us.

More broadly, addressing marketing's emissions will play an important role in our overall decarbonisation strategy. This is not just because Australian Ethical is a purpose-driven brand; we see it as a strategic advantage to future-proof our business."

EMMA GRAINGE
Head Of Brand and Communication, Australian Ethical

WHAT'S NEXT?

BEYOND THE DATA – A PLAYBOOK TO ADDRESS MARKETING'S FULL IMPACT

Ad Net Zero provides a comprehensive playbook for marketers looking to reduce the environmental impact of their advertising and contribute towards their organisation's sustainability goals.

This goes beyond the operational footprint of marketing activities, addressing the lifecycle of advertising from creation and distribution to its potential to support more sustainable behaviours in society through the five-pillar Action Plan.

To find out more about how Ad Net Zero Australia can support your organisation, please get in touch.

Credits:

Ad Net Zero relies on collective action from supporters, and this paper has been developed thanks to their efforts. This includes representatives from Benedictus Media, dentsu Australia, Google, SBS, The Guardian and WPP.

To find out more, contact

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METHODOLOGY NOTE

Ad Net Zero Australia partnered with 2XE to assess the contribution of advertising services emissions within organisations' upstream Scope 3 emissions. The analysis used organisational GHG emissions data available to 2XE, including advertising services emissions and reported upstream Scope 3 emissions.

Advertising services emissions were assessed as a proportion of upstream Scope 3 emissions to understand their relative materiality within an organisation's supply chain. The dataset includes a combination of spend-based estimates, supplier-specific emissions data, and activity-based calculations, depending on data availability.

As supplier-specific and activity-based methods generally produce lower and more accurate results than spend-based estimates, results should be interpreted with this variation in mind.

The findings are indicative rather than statistically representative of the Australian market. Actual results will vary depending on an organisation's sector, business model, advertising intensity, reporting boundary, supplier mix, data quality, and emissions calculation methodology.

Where advertising emissions are calculated using spend-based methods, estimates may be influenced by changes in expenditure, inflation, supplier categorisation, and emission factors.

Transitioning to activity-based and supplier-specific data provides greater accuracy and a stronger foundation for identifying emissions reduction opportunities.

ABOUT 2XE

2XE is an independently owned Australian sustainability and climate consultancy founded in 2011. Blending strategy, engineering and technology, 2XE helps organisations measure, manage and reduce emissions, develop credible decarbonisation pathways, and prepare for climate-related disclosure requirements under the Australian Sustainability Reporting Standards (ASRS) and AASB S2.

2XE has worked with more than 1,000 companies across carbon accounting, Scope 3 assessment, decarbonisation planning, climate risk, transition planning and assurance readiness. This work is supported by Recouple™, 2XE's proprietary carbon management platform.

2XE was included in the Australian Financial Review Sustainability Leaders 2025 list and won the 2024 Telstra Best of Business Award for Promoting Sustainability in South Australia.

ABOUT AD NET ZERO

Ad Net Zero is a global sustainability program to help the advertising industry decarbonise ad operations and support every industry to accurately promote more sustainable products, services and behaviours.

Originally founded by the Advertising Association in partnership with the IPA and ISBA, Ad Net Zero launched its 5-point action plan in the UK in November 2020. It counts hundreds of advertisers, agencies, commercial media owners, tech and production companies in its supporter base, with representation around the world including the US, Ireland, Europe, UAE, Australia and New Zealand.

Ad Net Zero launched in Australia in 2024, led by the MFA, IAB Australia, AANA and the Advertising Council of Australia, alongside 30 organisations representing advertisers, agencies and vendors.