

The Ad Net Zero Action Guide to Reduce Media Greenhouse Gas Emissions



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A call for addressing media sustainability

The sustainability challenge is one of the things nearly all governments can agree upon. In December 2015, 196 countries signed the [Paris Agreement](#), which commits each of our countries to keep global warming to 1.5°C by the end of the century. This means that we must ensure emissions peak before 2025 - less than two years from today. By 2030, we need to ensure GHG emissions decline by 43%. Further analysis shows that we use the resource equivalent of [1.75 planets](#) to support our current way of living. In short - something needs to change.

Media leaders are naturally creative, strategic, analytical, and technical. What happens when we apply those skills to this challenge?

In November 2020, [Ad Net Zero \(ANZ\)](#) launched as the advertising industry's response to this need for change, focused on five industry-specific actions, with Media Planning & Buying as one of them. What has become clear to many of us is that the magnitude and pace for change requires us to harness our industry's ingenuity to realise systemic change.

We believe...

- The media industry can come together pre-competitively to understand and address large-scale challenges common to the industry.
- The media industry has the potential to do the same for sustainability.
- The media ecosystem can do its part in understanding its environmental impact and can address that challenge through individual and voluntarily implemented tactical acceleration steps and systemic transformation.

In May 2023, we issued an industrywide call for media experts to nominate sustainability best practices which would then be presented as voluntary opportunities for media leaders to take what we are calling 'Quick Actions.'

We collected over 40 enthusiastic, generous responses from 30 independent organisations in the media ecosystem, which we distilled into 10 suggested Actions for industry participants to consider.

This guide is meant to be one-part education, one-part thought-starter, and one-part optional playbook.

And finally, we recognise that specialist partners like [AdGreen](#) and [IAB TechLab](#) have unique expertise that they have created in their own guides for their stakeholders, that support Ad Net Zero's five point action plan.

This guide should accelerate how the media industry approaches potential ways to reduce the greenhouse gas emissions at a campaign level.

This deliverable is led by a Sustainability Steer Team which, at the time of writing, brings together several brands and industry bodies across a varied spectrum of sectors including [Diageo](#), [Unilever](#), [Procter & Gamble](#), [Mars](#), [L'Oréal](#), [Reckitt](#), [Mastercard](#), [4A's](#), [ANA](#), [ISBA](#), and [The Responsible Marketing Agency](#).

Agency holding companies, publishers, data and technology providers have also been a key part of shaping this workstream.

To validate and further advance any findings, a Climate Science Review Panel has been formed to ensure the recommendations coming out of these groups are actionable.

We look forward to sharing this collection of suggestions with you, one which is designed for you to test and learn with transparency, rather than provide definitive solutions.

Our next challenge is to focus on transformation in how GHG measurement will support more environmentally efficient industry practices in media planning, buying, reporting and monitoring.

This guide...

- Should be viewed as connected to your organisation's individually set broader sustainability efforts.
- Focuses on the media process: channel choices, channel tactics, media execution.
- Should propel the expert and educate the novice, allowing an entire organisation to operate from a place of fact-based insight.
- Does not cover consumer-facing behaviour change campaigns, nor does this guide cover creative production – both of which are covered by Ad Net Zero's other priority areas.



**10
Voluntary
Actions Everywhere
to Reduce
Media's
Greenhouse Gas
Emissions**

**Sustainable
Supplier Selection
and Infrastructure**

1. Build a Sustainability-Assured Media Partner List
2. Streamline Your Media Value Chain & Technology

**Optimise
Assets for Media
Decarbonisation**

3. Drive Asset Sustainability Based on Media Sufficiency
4. Compress & Consider Length of Digital Creative Formats
5. Stream Content & Landing Destinations versus Preload

**Sustainable
Media Planning
& Buying**

6. Optimise Flighting to Include Off-Peak Energy Periods
7. Streamline and Optimise Data Usage
8. Look for Sustainability in Print
9. Look for Sustainability in Outdoor
10. Consider Emissions Data in Media Measurement Models



10 Voluntary Action Points to Reduce Media's Greenhouse Emissions

Sustainable Supplier Selection and Infrastructure

- 01. Build a Sustainability-Assured Media Partner List**
The use of sustainable suppliers in the media value chain is the biggest decarbonisation effort that can be achieved for the media industry. Therefore, it is suggested managing your media value chain and establishing an additional filter for inclusion based on the environmental actions and commitments your media ecosystem partners make.
- 02. Streamline Your Media Value Chain & Technology**
Be selective in technologies used to support your digital media campaigns and look to streamline wherever possible. Digital runs on significant data and server infrastructures that require energy to power them, producing heat and generating GHG.

Optimise Assets for Media Decarbonisation

- 03. Drive Asset Sustainability Based on Media Sufficiency**
Consider ways to reduce, reuse, and recycle your creative assets. Industry-wide data shows that many advertisers create more assets than they will use, and rarely will these assets reach *wear in* let alone *wear out*, based on available media budgets.
- 04. Compress & Consider Length of Digital Creative Formats**
Longer form assets and heavy file sizes generate greater GHG output. Compress your digital creative files and consider shorter formats to help lower your carbon footprint.
- 05. Stream Content & Landing Destinations versus Preload**
Preloading both landing pages and advertising creatives in digital puts greater demand on server energy. Where possible find streaming solutions to only show assets as and when they are needed to be seen by the end consumer. Avoid auto-play as a default setting.



10 Voluntary Action Points to Reduce Media's Greenhouse Emissions

Sustainable Media Planning & Buying

06.

Optimise Flighting To Include Off-Peak Energy Periods
Media flighting strategies can likely be optimised in a way that considers energy use, whether based on network usage or energy source used. Where possible, consider scrutinizing ways to build reach curves that recognise the intensity of emissions, using location-specific data.
07.

Streamline and Optimise Data Usage
Data is frequently used to improve targeting. Reviewing the layers and ways in which data is handled and applied to campaigns, how it is stored and transacted, should be examined to do so in a way that is as energy efficient as possible.
08.

Look for Sustainability in Print
Select print publishers have been making great strides in sustainability. The moves to use responsibly sourced paper, PEFC / FSC certified paper, recycled and recyclable materials in the printing process including non-toxic and biodegradable inks allow for sustainable use of print as part of a media campaign.

09.

Look for Sustainability in Out-of-Home
Outdoor sustainability advances range from recycled materials to sustainable energy use to regenerative structures. The more sustainably they are built and maintained, the more impact they can have in long term GHG reduction. Consider these in prioritising campaign executions and site selections to reduce environmental impact.
10.

Consider Emissions Data in Media Measurement Models
Ad buyers may want to consider a balanced scorecard in evaluating media investment choices at the macro and micro level. This balanced scorecard can drive transparency in investment choice. By balancing an array of metrics spanning business outcomes, media reach, media impact, media efficiency, media quality, and media sustainability, advertisers and media agencies can increasingly weigh up channel tactics based on media emissions data as it becomes more reliable. This will be actionable when as we explore and develop a common voluntary framework for the industry.



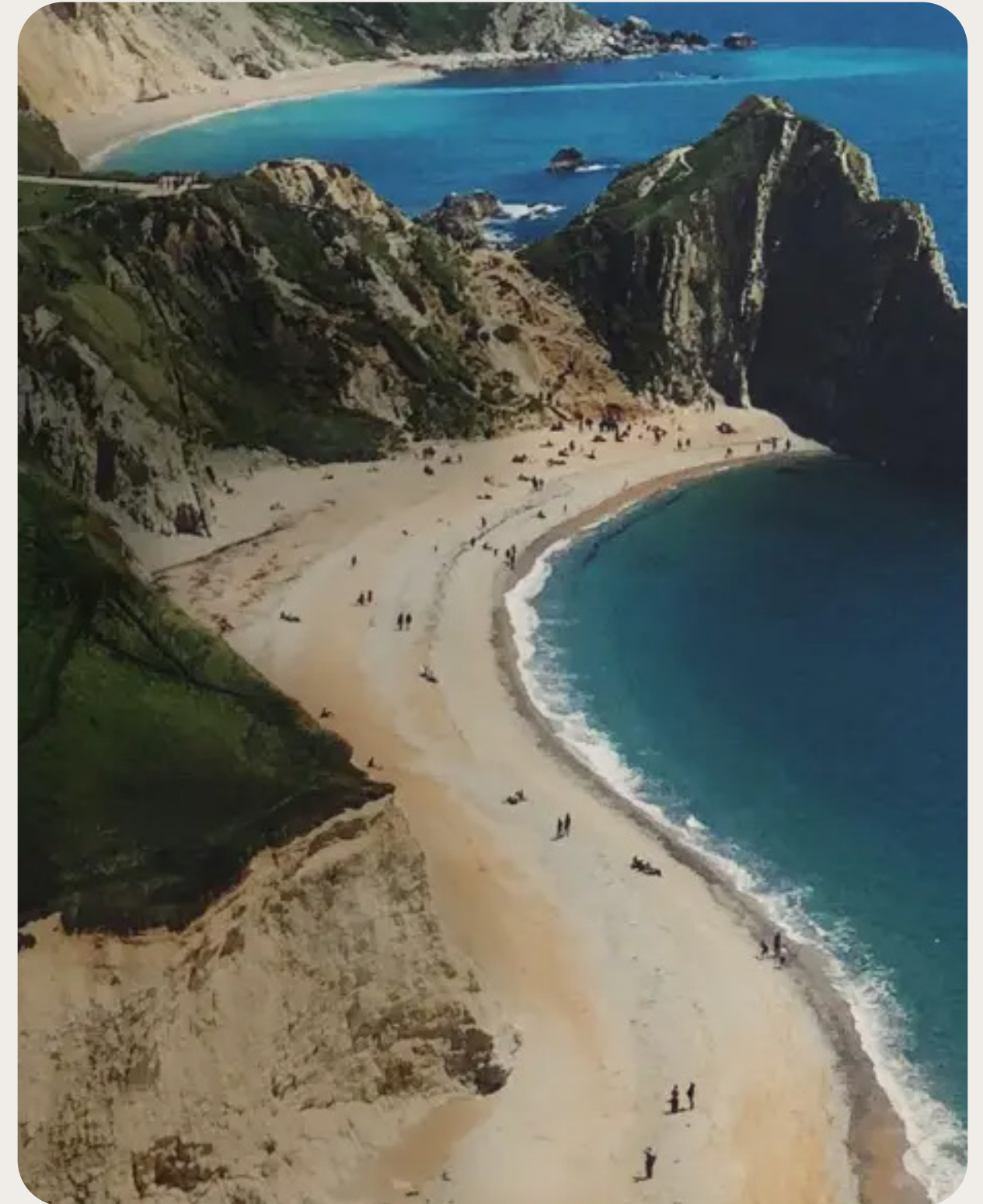
Who is this guide for?

This guide is written to support the media industry and all media practitioners, regardless of role.

Whether you are involved in media creation, production, planning, buying, trafficking or delivery, the planet needs you to think outside your role and work one of our biggest briefs yet.

This guide identifies a series of potential opportunities for media practitioners to freely consider in decarbonising media operations and campaigns.

These opportunities are relevant to creative agencies, media agencies and holding companies, as well as media and platform owners, production companies, adtech and advertisers - we all have a part to play in taking action today, every tonne of carbon reduced, counts.



What are Greenhouse Gas Emissions?

"Climate change refers to long-term shifts in temperatures and weather patterns. Such shifts can be natural, due to changes in the sun's activity or large volcanic eruptions. But since the 1800s, [human activities have been the main driver of climate change](#), primarily due to the burning of fossil fuels like coal, oil and gas. Burning fossil fuels generates **greenhouse gas emissions** (GHG) that act like a blanket wrapped around the Earth, trapping the sun's heat and raising temperatures," - [The UN's definition for Climate Change](#).

There are 6 primary greenhouse gases (as defined by the Kyoto Protocol) – all of them critically influenced by human behaviour (including the influence of synthetically produced gases like SF₆ and HFCs). Since these gases have different impacts, we convert them to a common unit: Carbon Dioxide equivalent or CO₂e. The shorthand is "carbon" which is why we talk about decarbonisation.

Human behaviour on the world is adding 51 Billion tons of greenhouse gases through emissions to the atmosphere annually. This amount is over and above safe levels. To sustain life on the planet we need to reduce the amount to zero.

Carbon neutrality also requires mention, where carbon offsetting or credits are used to counter-balance emissions. Caution is needed when looking at companies offsetting carbon or using carbon credits (via sequestration and removal) as a route to net zero as there are inconsistencies and qualification on best practices in this space. Reduction should always be the first endeavour, while legitimate high quality sequestering programmes should play a lesser role. Ad Net Zero have developed guidance on this issue. [Click here to view more](#)

As companies seek to reduce their emissions to zero, they have to look at a multitude of layers from which they currently contribute. The [UN's Intergovernmental Panel on Climate Change](#) created a model to assess these layers comprehensively by looking at both direct and indirect contributors:

Scope 1 - direct emissions from your own business operations (eg. Fuel usage)

Scope 2 - the emissions from utility suppliers to your operations (eg. Electricity)

Scope 3 - the emissions from the value chain that enable your operations, the companies you are connected with that facilitate the running of your business (eg. Raw materials, logistics, waste and most media emissions)

The [Carbon Trust](#) offers further examples and description of Scope 1, 2, and 3.

Scope One

Covers all direct GHG emissions

Scope Two

Covers indirect GHG emissions from consumption of power heat or steam

Scope Three

GHG emissions from the production and extraction of purchased materials and fuels, transport-related activities in vehicles owned by suppliers as well as outsourced activities, such as waste disposal – and most media emissions.

Many companies are actively setting targets to reach net zero emissions against various timelines, most often aiming to deliver on the [2015 IPCC Paris Agreement](#).



What is the impact of media on greenhouse gas emissions?

The scale of the media emissions problem is largely unquantified, however the range in estimates is enough for us to warrant action.

- [WPP](#) estimated this to be as high as 54% of their total scope emissions. Other agency holding companies and industry reports identify similar impacts.
- A leading advertiser in the financial services sector estimates that media accounts for the lion's share of their marketing emissions.

Many of these individual organisations have taken action to lead their value chain partners to reduce their media carbon impact. Many publicly traded companies, including ad companies have reporting requirements currently or in the near future through financial risk reporting requirements.

Clients and other business partners are requesting this information as part of their business decision making.

While there is no single consistent source of measurement today, we will endeavour to create a robust methodology for measurement of the carbon contribution for the entire industry in the future. We will investigate more deeply the boundaries and granularity for carbon measurement across the total media supply chain, building on and extending best practice demonstrated to date.

To give scale and speed to addressing the problem with true transparency, we will take into consideration many different perspectives on calculation methodology, data input, and any other relevant information with a vetted climate science review panel. The ultimate aim is for ubiquity and consistency in carbon measurement throughout the media ecosystem.

What we know: From an advertiser's perspective, media as a contribution to total scope emissions varies widely based on the nature of their business, from the highest priority for some organisations through to a minor contribution for others. Similarly the way in which agencies, publishers and technology companies are prioritising decarbonisation today varies from nascent through to an active focus. We will endeavour to make accessible all the techniques and eventually solutions that will advance our industry's efforts faster.

The Ad Net Zero Action Plan

Ad Net Zero's five-point Action Plan provides our industry with a guide for its transition to net zero. The actions are:

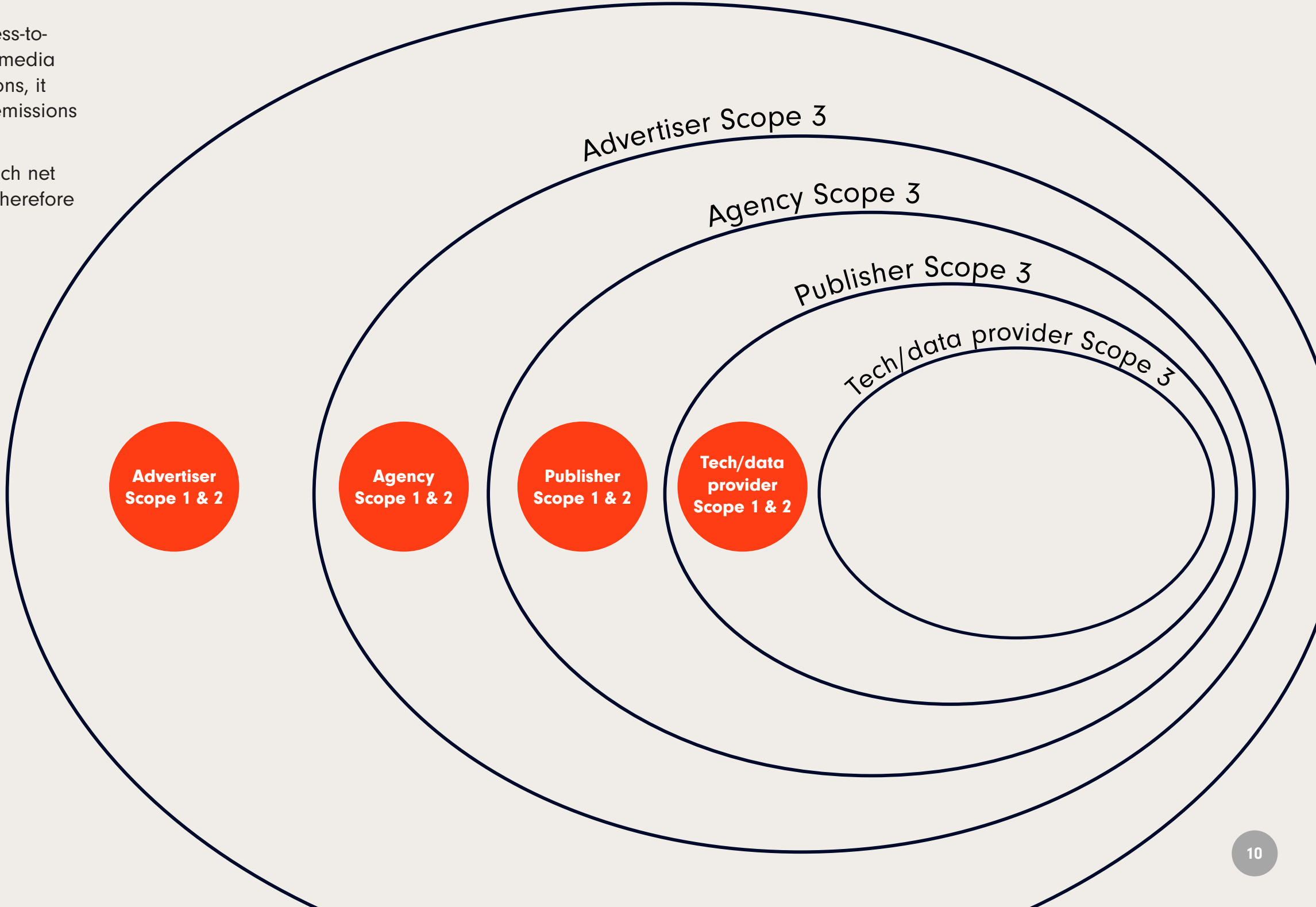
- Action 01**
Get your house in order - advertising business operations
- Action 02**
Reduce emissions from advertising production
- Action 03**
Reduce emissions from media planning and buying
- Action 04**
Reduce advertising emissions through awards and from events
- Action 05**
Use our ability to promote more sustainable behaviours



How does your role in the media supply chain define your emissions?

Because of the interconnected nature of business-to-business relationships, as one company in the media landscape reduces their scope 1 and 2 emissions, it has a knock-on benefit to reduce the scope 3 emissions of others using the ecosystem.

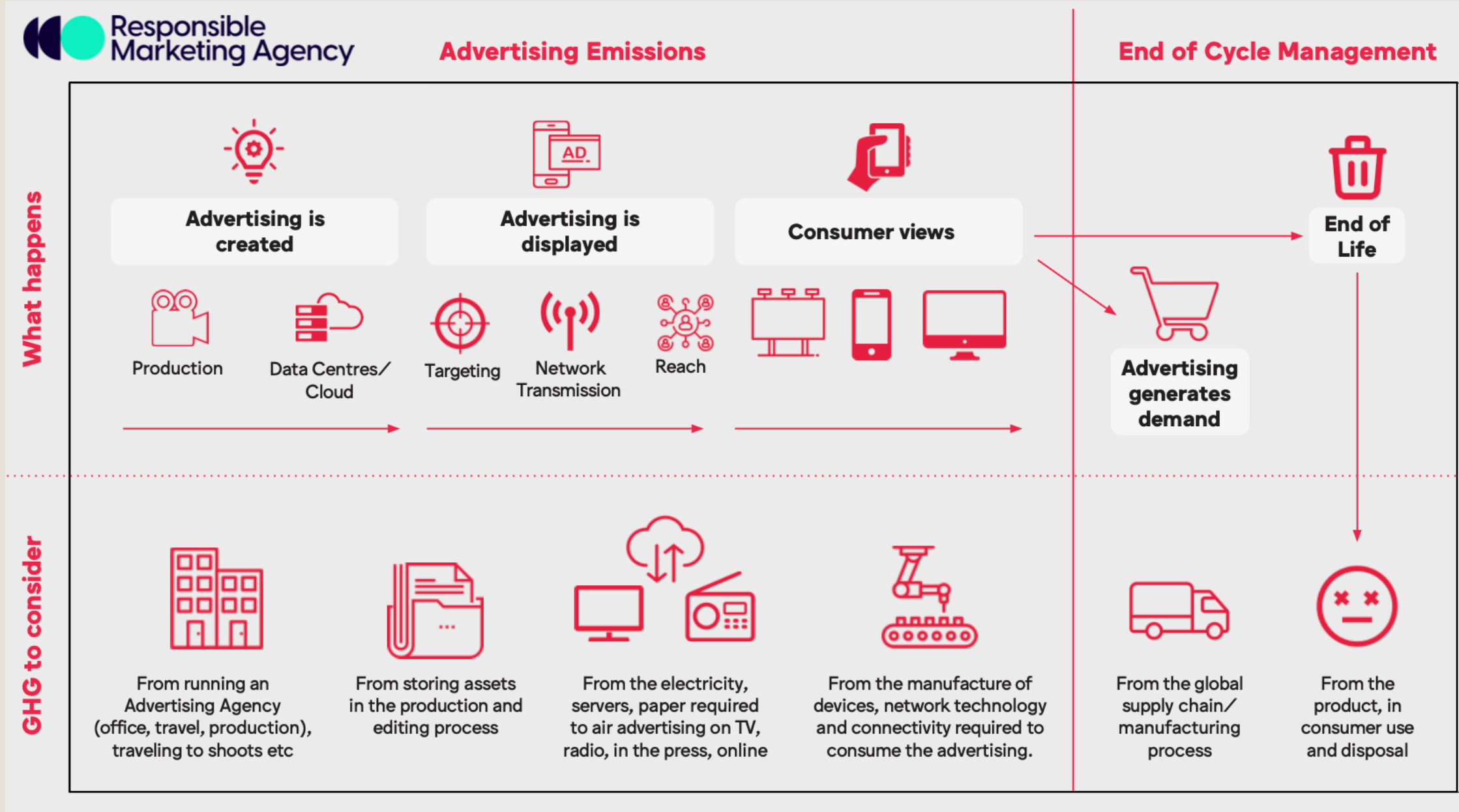
A drive from all parties in the ecosystem to reach net zero in their operations at a faster rate would therefore quicken the industry's transition as a whole.



How does the media supply chain cause carbon emissions?

Each step of the media supply chain creates emissions. In this simplified, channel agnostic view, there are topline indications of GHG to consider for each step, with more to include when overlaying specific media channel considerations.

This guide provides a broad point of view, looking omni-channel and at all parts of this supply chain for media actions.



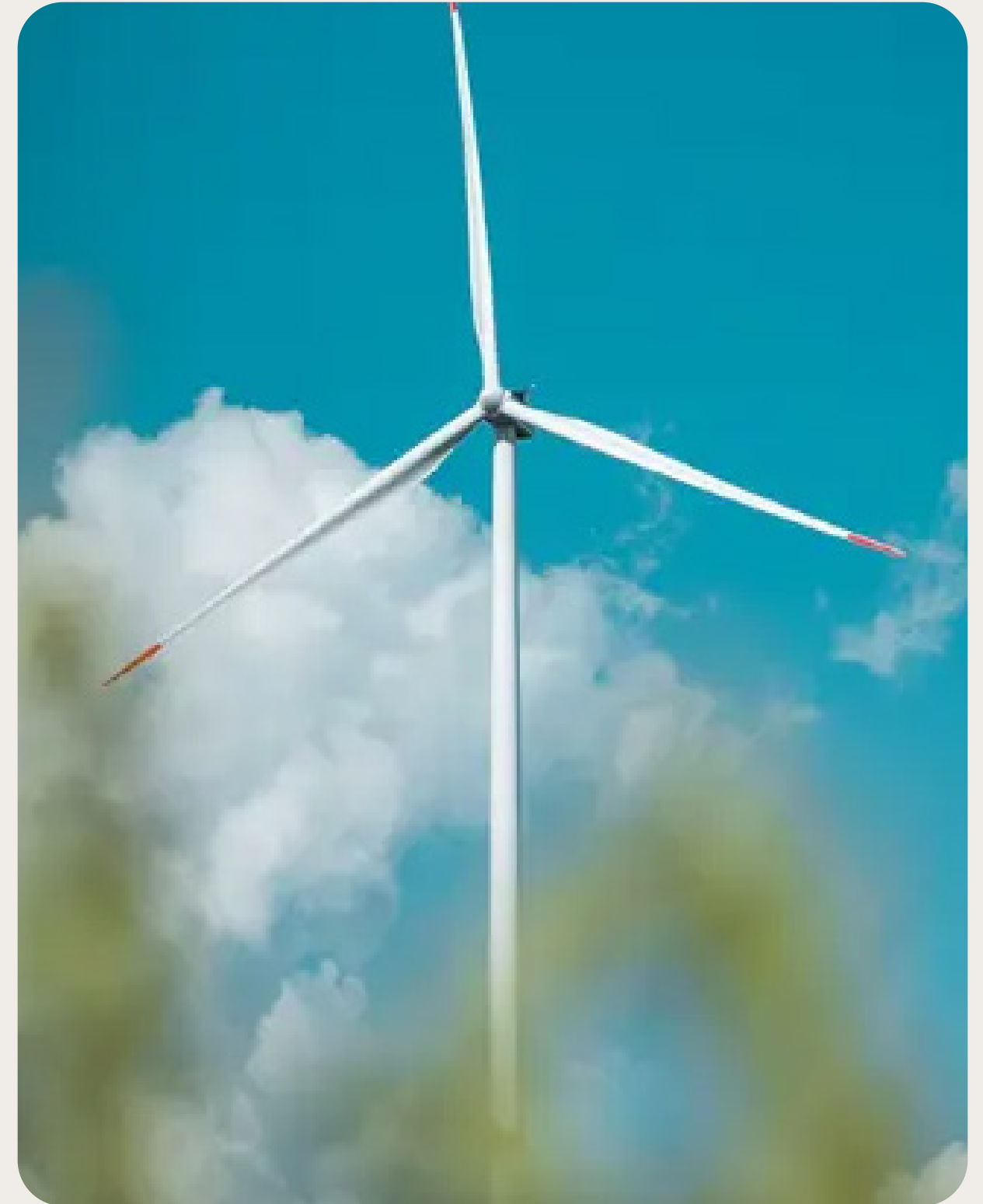
Where are you on the journey?

This Guide hopes to have something for everyone...

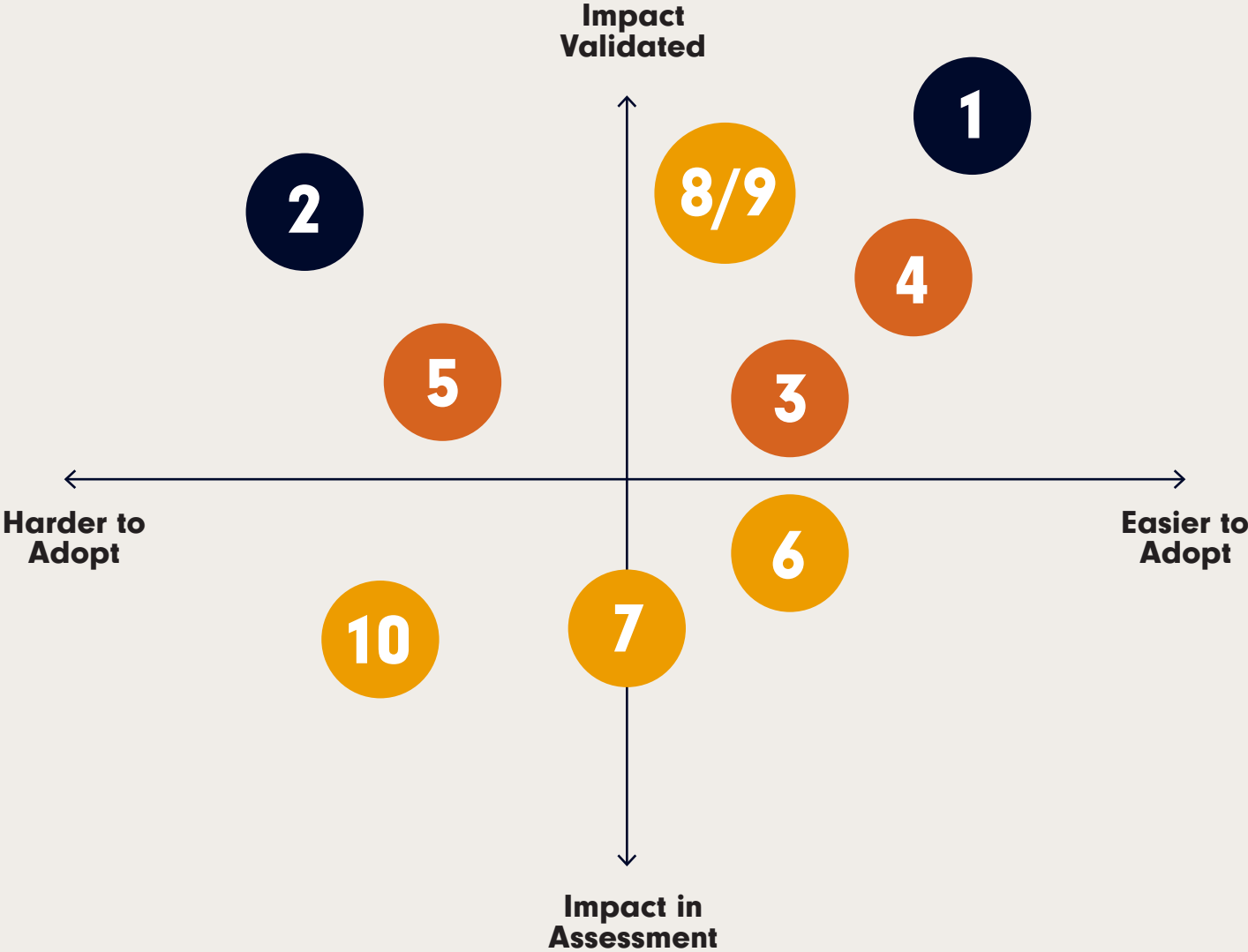
Wherever you are on your sustainable media journey, this guide is a practical tool to help you, whether you're just beginning to look at the emissions impact of your media campaigns or if you are an advanced practitioner of sustainability within your business.

This is a living guide, one that will build with time, insight and learnings. So, it is not perfect, instead it is a place to share progress on a voluntary and anonymized basis with suggested best practices from several well-recognized brands, agencies, media owners and publishers in the industry reflecting where we are today. We hope that together, we can efficiently work towards sharing our knowledge by rapidly and independently testing, learning and where possible transparently sharing our findings on an anonymized basis to help transform our industry to be future fit.

- If you are just getting started, we recommend reading this guide sequentially.
- If your time is short, look to our directory and jump directly to the action most relevant for your organisation.
- And if you have more learnings that you want to share with us, [please get in touch!](#)



Assessing the Actions



Sustainable Supplier Selection and Infrastructure

- 1. Build a Sustainability-Assured Media Partner List
- 2. Streamline Your Media Value Chain & Technology

Optimise Assets for Media Decarbonisation

- 3. Drive Asset Sustainability Based on Media Sufficiency
- 4. Compress & Consider Length of Digital Creative Formats
- 5. Stream Content & Landing Destinations versus Preload

Sustainable Media Planning & Buying

- 6. Optimise Flighting to Include Off-Peak Energy Periods
- 7. Streamline and Optimise Data Usage
- 8. Look for Sustainability in Print
- 9. Look for Sustainability in Outdoor
- 10. Consider Emissions Data in Media Measurement Models



Action Guide: Opportunities to reduce media greenhouse gas emissions

01.
Sustainable
Supplier
Selection and
Infrastructure

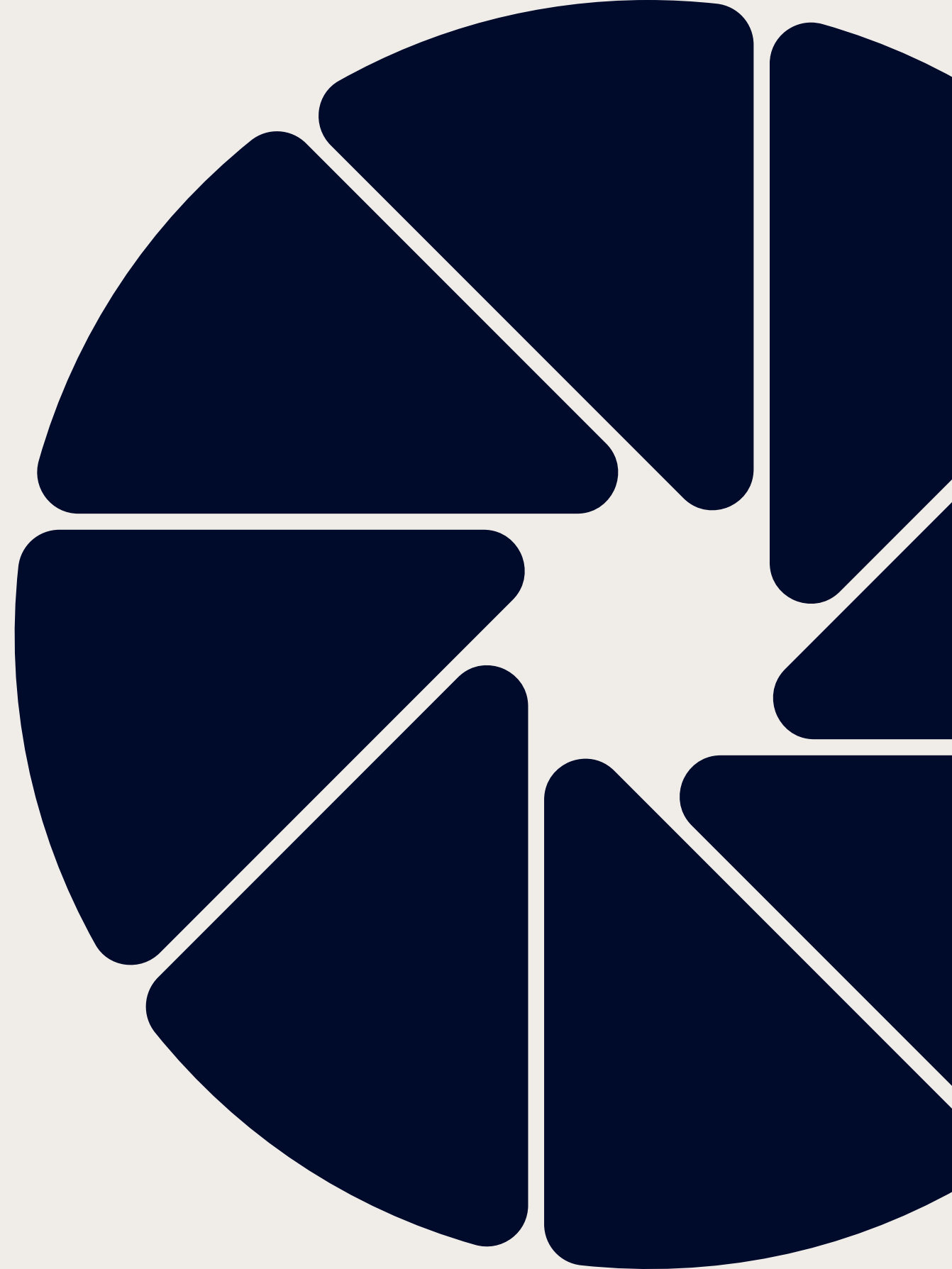
02.
Optimise Assets
for Media
Decarbonisation

03.
Sustainable
Media Planning
& Buying



Action Guide

01. Sustainable Supplier Selection and Infrastructure Practices



Overview

Area of campaign

- Partner Selection
- Procurement

Channel

- Omni

Type of organisation and discipline/role

- All leaders responsible for partner selection and/or procurement

Level of proof

- Impact validated

Partners are in consideration

- All suppliers, auditors

1. Build a Sustainability-Assured Media Partner List

The use of sustainable suppliers in the media value chain is the biggest decarbonisation effort that can be achieved for the media industry. Therefore, it is suggested managing your media value chain and establishing an additional filter for inclusion based on the environmental actions and commitments your media ecosystem partners make.

What's the environmental benefit?

If every company in the media supply chain (advertiser, agency, publisher, technology partner etc.) takes ownership and accountability for the end-to-end impact they have on the environment and seeks to radically reduce that impact, everyone benefits.

Working with companies who have reviewed and reported on their GHG emissions, have implemented clear, publicly verified emissions reduction targets (e.g. [SBTi](#)) and those who are actively seeking to decarbonise their Scope 1, 2 & 3 emissions is critical for the media supply chain to offer sustainable solutions.

Further Details:

- Reviewing the environmental credentials and commitments of companies in the media supply chain is an important step for the sustainable marketer.
- For large companies, this comes in the form of a public commitment to science-based target setting ([SBTi](#)) with assured data of the decarbonisation efforts across Scope 1, 2 & 3 emissions being evident and improving against time bound goals.
- Smaller to medium sized media companies can be reviewed and audited at annual intervals for their sustainability credentials.
- In Kevin and Sarah Duncan's publication, The Sustainable Business Book, they offer The [PLANET System](#)® ESG Audit framework which is perfectly suited for this – see Links and Resources. For the purposes of environmental emissions reduction, we recommend prioritising energy use credentials in your supply chain to offer sustainable solutions.

What Steps Can be Considered to Implement this?

- Set clear sustainability criteria for your partners and suppliers.
- Communicate criteria to media partners and suppliers, asking all suppliers to answer a standard RFI and interpretation guide for their answers.
- Request a publicly disclosed, verified annual GHG emissions inventory, while reporting using industry-accepted disclosure mechanisms, media-specific emissions data tools (e.g., forthcoming carbon measurement framework - target launch 2024), and existing sources in the meantime.
- Request SBTi net zero targets or equivalent for smaller companies and annual progress reports toward their targets.
- Consider if certain requirements (e.g., disclosure) should be built into MSAs.

Considerations:

- Uptake of SBTi's by your suppliers might take time, set clear time horizons for when you expect your suppliers to have plans in place.
- In the short-term, auditing and review of the suppliers who are meeting sustainable requirements will require heavy lifting, seek out tools and solutions to fast track this process.
- Agencies support in the monitoring of suppliers to navigate media landscape choices faster will accelerate the industry.
- Changes to your supplier list could cause disruption in the short term and must be reviewed in line with performance criteria for both campaign objectives and carbon emissions.

Overview

Area of campaign

- Digital Technology Infrastructure

Channel

- All digital

Type of organisation and discipline/role

- Media Planning
- Buying Teams
- Technology Teams

Level of proof

- Impact validated

Partners are in consideration

- Technology or Media Agencies, In-House Technology or Media Buying teams

2. Streamline Your Media Value Chain & Technology

Be selective in technologies used to support your digital media campaigns, and look to streamline wherever possible. Digital runs on significant data and server infrastructures which require energy to power them, producing heat and generating GHG.

What's the Environmental Benefit?

Digital runs on significant data and server infrastructures which require energy to power them, producing heat and generating GHG emissions. Streamlining to a simplified media and technology ecosystem will decrease your carbon footprint, as will the removal of poor-quality inventory.

As the [IAB Tech Lab Sustainability Starter Guide](#) states in reference to programmatic media as an example: "Reducing the number of transactions in the bid stream has a direct impact on lowering energy consumption and a straightforward way to decrease transactions is to minimise duplication of requests. Fewer transactions, especially those that result from duplication in the bid stream, means less energy gets used. Said simply, multiple requests for the same ad slot, without clear business goals, creates unnecessary GHG emissions. Publishers should regularly review which parties are allowed to sell their inventory."

[Further Ebiquity and Scope3 research study reveals](#) that 15% of brand ad spend is wasted, contributing high GHG emissions and impacting return-on-investment.

Further Details:

- The relative short history of digital media has resulted in an overly complex supply chain.
- The proliferation of layers of tools and technologies (across all digital touch points e.g., search, social, programmatic, retail media etc.) used to enhance the media planning and buying process is at an all-time high.
- Often new technology gets added that overlaps and at times duplicates existing technologies. Also, redundant tagging and tracking components are not cleaned up as shifts are made to new suppliers.
- Frequently, ad buyers are unaware of the complexity from advertised impression to consumer view, and the resulting excess GHG emissions and wastage that is avoidable.
- Streamlining to fewer and essential layers will result in lower carbon generation.

What Steps Can be Considered to Implement this?

- Review your media supply chain from advertiser to consumer (with a focus on digital channels).
- Identify areas of poor quality, overlap, duplication, and redundancy in partnership with advertisers, agencies and media owners.
- Pursue appropriate consolidation and streamlining.
- Encourage remaining suppliers to enact Action 1.

Considerations:

- [IAB Tech Lab](#) provides detailed voluntary step-by-step considerations to enable a technical level improvement to how the programmatic supply chain is optimised.
- Consider and assess the distinct value added by each supplier used and determine if duplicative intermediaries could be considered for removal.
- Looking at a publisher's listing in their ads.text is one quick and easy way to check how many SSP's they are working with, and therefore how many auctions will be taking place. Publishers that list fewer SSP's in their ads.txt files are likely to use less energy.
- In the short-term independent auditing and review of the media supply chain requires upfront time investment.
- Streamlining may include procurement processes to move to new suppliers, aligned with individual corporate requirements, as well as those with verified lower carbon footprints.
- The concentration of remaining partnerships in oligopoly or monopoly entities as a result of this streamlining and removal of intermediaries needs review.

Action Guide

02. Optimise Assets for Media Decarbonisation



Overview

Area of campaign

- Creative production

Channel

- All

Type of organisation and discipline/role

- Marketing teams
- Creative teams
- Media teams

Level of proof

- Impact validated

Partners are in consideration

- Marketing
- Creative
- Media teams
- Agencies

3. Drive Asset Sustainability Based on Media Sufficiency

Consider ways to reduce, reuse, and recycle your creative assets. Industry-wide data shows that many advertisers create more assets than they will use, and rarely will these assets reach wear in let alone wear out, based on available media budgets

What's the Environmental Benefit?

Making fewer creative variations and using assets for longer periods reduces the number of resources required, files generated and stored in data servers, spare physical printed assets in storage and landfill, and overall production emissions. A move to link creative production to media sufficiency can radically reduce the number of assets created and the frequency with which they are updated. Having a media sufficiency-driven approach to creative asset development can significantly reduce the carbon footprint of the creatives going into media buying. The overall reduction may seem small for a singular campaign, but the compounded impact across multiple campaigns can start to become significant.

Further Details:

- While addressable media encourages personalisation and creative asset diversification, creative effectiveness and media effectiveness, studies urge marketers not to reinvent creative and to ensure assets have sufficient media volumes to reach impact.
- A media budget driven approach to creative asset development can help streamline business and environmental performance.
- Teams should consider how many assets can have support, and if and when new assets are required – which in turn can reduce the volume and frequency with which new assets are created.
- Initiatives like AdGreen should be further reference to addressing carbon reduction in the creative production process.

What Steps Can be Considered to Implement this?

- Undertake a review to consider the number of assets you produce today and their usage and exposure to consumers.
- Evaluate if assets are reaching wear-in, wear-out or if you have an excess of assets that are being too frequently changed.
- Consider a campaign model where you only develop creative assets with sufficient media budget and weights to reach wear-in / wear-out.
- Monitor and review creative wear-in / wear-out, supporting creative teams with data on creative performance and when new creative is required.

Considerations:

- Consider moving to only producing what you need for the execution of a campaign with a focus on minimisation of wastage (which, incidentally, also brings about other benefits for your organisation and, potentially, customers). Even printing 10% less can have a positive impact on emissions reductions for traditional OOH for example.
- Understand the right connections planning, channel and placement requirements, media creative best practice including digital requirements, use of logos and products, optimally at the outset of production to streamline the volume of assets and reshoots needed.
- Consider where multiple variations can be created from one shoot further asset longevity.
- Publishers setting rules and enhancing their platforms to not always require creative refreshes at high frequencies, will aid the over creation issue.
- A further enhancement to be tested includes a review of the use of colours used in creative to see if they can be optimised for energy efficiency e.g. white and light colours require more energy to be displayed than dark and black colours, and should be a consideration in design.

Overview

Area of campaign

- Creative production

Channel

- All digital

Type of organisation and discipline/role

- Marketing Teams
- Creative Teams
- Media Teams

Level of proof

- Impact validated

Partners are in consideration

- Creative Agencies
- Publishers
- Technology Platforms

4. Compress & Consider Length of Digital Creative Formats

Longer form assets and heavy file sizes generate greater GHG emissions output. By compressing your digital creative files and running shorter formats you will help to lower your media carbon footprint.

What’s the Environmental Benefit?

Compressing digital creative assets before launch, as well as reducing the asset type and length in favour of smaller lighter formats, will aid in the reduction of GHG emissions impacts.

Currently, Impact+ estimates that compressing creative before it’s trafficked could reduce the carbon footprint of an asset by up to 30%.

Further Details:

- Visually rich and high-resolution creative assets on the largest screens possible are attractive to marketing teams during the development phase. However, creative production of those units often necessitates high resolution, “heavy” creative formats for origination.
- Most of the digital media we advertise is viewed on laptops and mobile devices where high resolutions are simply not required. Creative can be size compressed, reduced, or optimised to meet a viewability standard that is relevant to the viewed final format, and therefore “lighter” than the original piece of creative.
- Also shorter creative lengths are optimal for many platforms. For consumers, less than 15 seconds in digital is sufficient. The heavy use of video where dynamic display can work just as well, should be a consideration as video formats have a higher weight to load.

What Steps Can be Considered to Implement this?

- Work with media partners to assess and understand optimal digital format compressions.
- Where deemed relevant, compress all digital creative assets.
- Where possible prioritise short form creative over long form.

Considerations:

- Compressing and optimising creative adds another step into the ad creation and trafficking process, which must be considered as part of the campaign delivery timeline.
- This can be circumvented through education with creative agencies/ producers about the benefits of file compression for sustainability purposes.
- Published creative guidelines should expand and be updated to recommend reduced file sizes and lengths.
- Work with Ad Net Zero and AdGreen and consider their advice and create industry norms for smaller and lighter formats.
- Wider adoption of file compression solutions in standard practice is needed especially as free compression solutions exist today, their usage needs to become standardised.

Overview

Area of campaign

- Creative production

Channel

- All digital

Type of organisation and discipline/role

- Marketing Teams
- Creative Teams
- Media Teams

Level of proof

- Impact validated

Partners are in consideration

- Creative Agencies
- Publishers
- Technology Platforms

5. Stream Content & Landing Destinations Versus Preload

Preloading both landing pages and advertising creative in digital puts greater demand on server energy. Where possible, find streaming solutions to only show assets as and when they are needed to be seen by the end consumer. Where digital creative is ad-served, choosing to stream the content over preloading will require less energy to display and avoid data wastage. Avoid auto-play as a default setting.

What's the Environmental Benefit?

Streaming creative (vs preloading assets in full) means energy use is being used in a way that matches consumer interaction. Less energy will be used, especially when considering view through rates at less than 100%. This makes a significant difference.

Further from the IAB TechLab:

“Websites which delay loading of non-essential resources [improve load speed](#), [reduce bounce rate](#) and [reduce the number of non-viewable ads](#) and each of these lower the amount of energy needed to run a website. It is [widely considered to be a UX best practice](#) and can be accomplished with a single click in most content delivery systems.”

As this is best practice, the impact will be positive beyond that of GHG emissions reduction.

Further Details:

- Streamed creative only uses the energy needed to show the asset up to the viewed % point, whereas non-streamed requires full loading of the asset whether the consumer views it to 10%, 50%, or 100%, leading to data no one sees or data wastage.
- Landing page best practice on preloading has the same inherent benefits.
- Artificial Intelligence, green servers and green energy usage can further benefit the delivery of served images and decrease their relative GHG emissions.

What Steps Can be Considered to Implement this?

- Work with your ad serving provider to consider appropriate application, manage content preloading versus content streaming.
- Work with your web development team on landing page best practices to support streaming.
- If you are a publisher or technology provider, consider moving to support these practices where relevant.

Considerations:

- Work with your suppliers to ensure they have reviewed these settings and put in place appropriate and relevant streaming solutions that minimise loading in favour of streaming.
- Support opportunities to create standards and best practices industry wide here.

Action Guide

03. Sustainable Media Planning & Buying



Overview

Area of campaign

- Media planning & buying

Channel

- All digital

Type of organisation and discipline/role

- Media planning
- Buying teams

Level of proof

- Impact in assessment

Partners are in consideration

- In-house Media Buying teams or Media Agency

6. Optimise flighting to include off-peak energy periods

Media flighting strategies can be optimised in a way that considers energy use, whether based on network stress or energy source used. Where possible, scrutinise ways to build reach curves that recognise the intensity of emissions, using location-specific data.

What's the Environmental Benefit?

Balancing buying times of day and days of week, especially for when electricity grids in different markets are powered by more renewable energy, can have a major impact on the carbon emitted during a campaign. Optimising even slightly towards these more energy efficient hours will enable emissions reductions at the total campaign level.

Further Details:

- Optimising media buying in off-peak energy times, even as a percentage of media plans, has the ability to utilise lower impact energy supply and leads to less likely use of fossil fuel energy. Consider parting even a proportion of your plan to these off-peak hours for GHG emissions reduction.
- DOOH can be optimised for both impact and energy efficiency by reducing display hours during low traffic hours and having off periods. DOOH displays can be configured to be smart and to sense such periods to better reduce electricity consumption and reduce GHG emissions.

What Steps Can be Considered to Implement this?

- Review the spread of peak and off-peak usage in your current plan vs electricity usage for your market.
- Test and learn alternatives to see if more off-peak electricity hours can be included without performance loss.
- Prioritise campaign distributions across low emissions days / times where available.

Considerations:

- Ensuring you still reach the right consumers for your campaign during off-peak energy periods requires test and learn periods to monitor the impacts and review if changes can be made without loss of performance.
- Key metrics need to be reviewed, particularly ensuring there is no impact on reach / effective reach strategy.
- A further consideration and overlay will be to review if audiences and pricing change based on time of day / day of week flighting and should also be a consideration.
- This is a theoretical learning that needs to be advanced through test and learn frameworks across the media industry. We welcome any case studies or experiences being shared to help scale this tactic further.

Overview

Area of campaign

- Media planning & buying

Channel

- All digital

Type of organisation and discipline/role

- Media planning
- Buying teams

Level of proof

- Impact in assessment

Partners are in consideration

- In-house Media Buying teams or Media Agency

7. Streamline and Optimise Data Usage

Data is frequently used to improve targeting. It is essential to review the layers and ways in which data is applied to campaigns, and how it is stored and transacted, to ensure that the data usage is as energy efficient as possible.

What's the Environmental Benefit?

Data adds heavy load to the buying process and in turn puts carbon pressure on servers and systems. Exploring tactics and ways to efficiently and effectively use data with minimal GHG emissions impact requires further exploration. One validated tactic is WIFI targeting, which consumes less energy than mobile roaming. Driving reach through WIFI first will deliver reach with lower GHG emissions.

Further Details:

- A second tactic may include looking at the use of data sources, data layers and deduplication of overlapping solutions.

What Steps Can be Considered to Implement this?

- Ensure that the targeting you have is essential to the audiences you want to reach.
- Weigh the business imperative for each layer of targeting (e.g., location, behavioural, device etc.).
- Deduplicate overlapping services.
- Prioritise more sustainable targeting (WIFI over mobile where available).

Considerations:

- Data plays an important role in optimising and improving campaign efficiency and effectiveness, reviewing the emissions associated with the storage and handling of data will require specialist sustainability resources.
- Beyond WIFI targeting, this area of data streamlining is a theoretical learning that needs to be advanced through test and learn frameworks across the media industry. We welcome any case studies or experiences being shared to help scale this tactic further.

Overview

Area of campaign

- Activation Infrastructure

Channel

- All digital

Type of organisation and discipline/role

- Media planning
- Buying teams

Level of proof

- Impact validated

Partners are in consideration

- In-house Media Buying teams or Media Agency Print Vendors / Procurement

8. Look for Sustainability in Print

Select print publishers have been making strides in sustainability. The move to use responsibly sourced paper, PEFC / FSC certified paper, recycled and recyclable materials in the printing process, including non-toxic and biodegradable inks, allows for sustainable use of print as part of a media campaign.

What's the Environmental Benefit?

The use of responsibly sourced, recycled and recyclable materials certified as lower emission, as well as sustainable materials for binding and packaging print titles, result in less energy in production and less materials wasted and needing to be managed during the end-of-life cycle.

By reducing or replacing plastic wrapping of print, less plastic goes to landfill. The way in which print is distributed can also be made sustainable through better transportation and logistics.

Methane, another GHG, is emitted from decomposing paper in landfills, which is another factor to take into consideration.

Further Details:

- Asking for GHG emissions assessment for paper and printing used by your suppliers will drive sustainable priorities for all stakeholders.
- Work with suppliers who prioritise the use of new binding technologies, non-toxic and sustainable inks, and cleaner distribution to improve the sustainability of print media. The use of non-toxic inks reduces both GHG emissions and potential heavy metal releases to the environment.
- Print companies who are putting sustainability first are also going further with the use of saddle stitched vs perfect bound papers, helping to further reduce the impact of the medium.
- Also eliminating plastic film wrapping entirely will enhance the emissions impact of the channel.

What Steps Can be Considered to Implement this?

- Understand the sustainable practices of your print partners.
- Consider working through procurement to assist suppliers to close gaps in their GHG measurement and reduction.
- As appropriate, consider working with suppliers who favour sustainable practice.

Considerations:

- The creation of industry standards by the print industry on sustainable paper usage, printing and plastics in the production and distribution of their publications will benefit both consumers as well as advertisers using their titles.
- There is still significant variation in the evolution of sustainable print practices across global markets. For example, the standards for paper recycling have not yet been globally adopted, leaving some markets with very little access to affordable recycled paper for printing.

Overview

Area of campaign

- Activation Infrastructure

Channel

- All digital

Type of organisation and discipline/role

- Media planning
- Buying teams

Level of proof

- Impact validated

Partners are in consideration

- In-house Media Buying teams or Media Agency
OOH Vendors / Trade Bodies

9. Look for Sustainability in Out of Home

Outdoor sustainability advances range from recycled materials to sustainable energy use to regenerative structures. The more sustainably they are built and maintained, the more impact they can have in long term GHG reduction. Consider these in prioritising campaign executions and site selections to reduce environmental impact.

What’s the Environmental Benefit?

Outdoor media has a different range of environmental impacts compared to other media platforms given that it is, by nature, part of the public built environment and community. Structural materials, lighting, energy supply, campaign materials, installation, cleaning and end of campaign recycling all contribute to the OOH footprint.

Advances in OOH sustainable practices have dramatically reduced the GHG emissions associated with the physical structures including: the use of recycled aluminium or steel versus raw stainless steel; the elimination of virgin plastic, vinyl and PVC; the use of energy-efficient digital displays and the creation of solar powered roofs.

There have also been advances in creating more sustainable OOH maintenance practices, including the limitation of water consumption in site maintenance through rainwater capture, the replacement of fluorescent lighting with LED alternatives and the servicing and maintenance of all sites using electric vehicles.

Further Details:

- The combination of tactics to create more sustainable infrastructure will reduce the footprint of the relevant OOH site, including ensuring that long term site maintenance practices that are also lower GHG emitting.
- As with print, the use of responsibly sourced, EFC / FSC certified paper, recycled and recyclable materials in the printing process, including nontoxic and biodegradable inks for posters, is key.

What Steps Can be Considered to Implement this?

- Understand the sustainable practices of your OOH partners including both the physical infrastructure and campaign delivery through end-of-life.
- Consider working through procurement to assist suppliers to close gaps.
- As available work with suppliers who favour sustainable practice.

Considerations:

- The OOH suppliers you choose to work with need to be reviewed for their sustainability credentials, and support given to those OOH suppliers who are currently not deploying best practices.
- Until responsibly sourced, recycled and recyclable paper becomes the norm, these materials will likely be slightly more expensive than standard. Wider utilisation will standardise the cost.
- The use of OOH for community biodiversity solutions can be facilitated by marketers reimagining the role of OOH investments and building marketing campaigns to enable the sites to be enhanced for sustainable and carbon capture solutions.

Overview

Area of campaign

- Omnichannel Planning

Channel

- All

Type of organisation and discipline/role

- Connections Planning
- Media Planning
- Buying Teams

Level of proof

- Impact in assessment

Partners are in consideration

- In-house Media Buying teams or Media Agency

10. Consider Emissions Data in Media Measurement Models

Ad buyers should consider a balanced scorecard in evaluating media investment choices at the macro and micro level. This balanced scorecard should drive transparency in investment choice balancing an array of metrics spanning business outcomes, media reach, media impact, media efficiency, media quality, and media sustainability. Advertisers and media agencies will increasingly weigh channel tactics based on media emissions data as it becomes more reliable.

What’s the Environmental Benefit?

Considering GHG emissions in the media planning and buying process along with the primary business and media outcomes, data points can be a helpful way to optimise channel choice and channel tactics.

If done in balance, overall GHG emissions should be reduced as the plan will optimise to lower carbon footprint formats and channels. Whenever advertising is more efficient, there are reductions in GHG emissions, so it is a win-win.

However, as current metrics vary in their accuracy, advertising stakeholders should scrutinise the integrity of data as an industry standard is developed.

Further Details:

- Media buying decisions are made, using performance metrics and media measurement models, looking at the distribution of investments by channel and placement using performance outcomes. This performance data remains critical, however enhancing the media measurement model by overlaying additional metrics like media quality, and GHG emissions data side-by-side with performance data will allow decisions to be made on investments based on the combination of performance and other areas like environmental impact
- It will be a critical enabler for advertisers with Scope-based reduction targets to have knowledge and access to data points that inform their buying practices and enable them to select alternatives that are in line with reduction strategies.

What Steps Can be Considered to Implement this?

- Request annual emissions reporting from each supplier using the media measurement framework once available (target launch 2024), and existing sources in the meantime.
- Integrate GHG emissions data into existing media measurement systems and tools.
- Use GHG emissions impact as an additional dimension to performance analysis and decision making.

Considerations:

- No industry standard exists at present and accuracy should be considered; one marketer reports a 6x difference in GHG estimation of the same media tactic from two parties.
- The standardisation of GHG emissions measurement data and metrics to ensure like-for-like comparisons between disparate suppliers is critical to enable this modelling. Today no industry standard exists and the acceleration of voluntary standards is of highest priority for Ad Net Zero to enable. Once available the end state will be carbon metrics integrated into Planning, Buying and Reporting platforms.
- Once available prioritising budget to lower GHG emissions formats and channels will become possible. A new practice and analyst skill set will need to be used in conjunction with overall planning decision making to understand where trade-offs in performance might be affected, and where sequestration solutions will be required.
- This may in turn lead to a resurgence in lower carbon formats and channels and a redistribution of investments to balance the prevalence and usage of higher carbon formats and placements.

Conclusions and next steps

Thank you for considering these action steps – you may not have seen yourself as a sustainability activist within our industry before, but hopefully you have been inspired by reading through this set of suggestions from your peers and colleagues to take action in your business today.

ANZ's first deliverable with its stakeholders should help accelerate how the media industry approaches potential ways to reduce the greenhouse gas emissions at a campaign level.

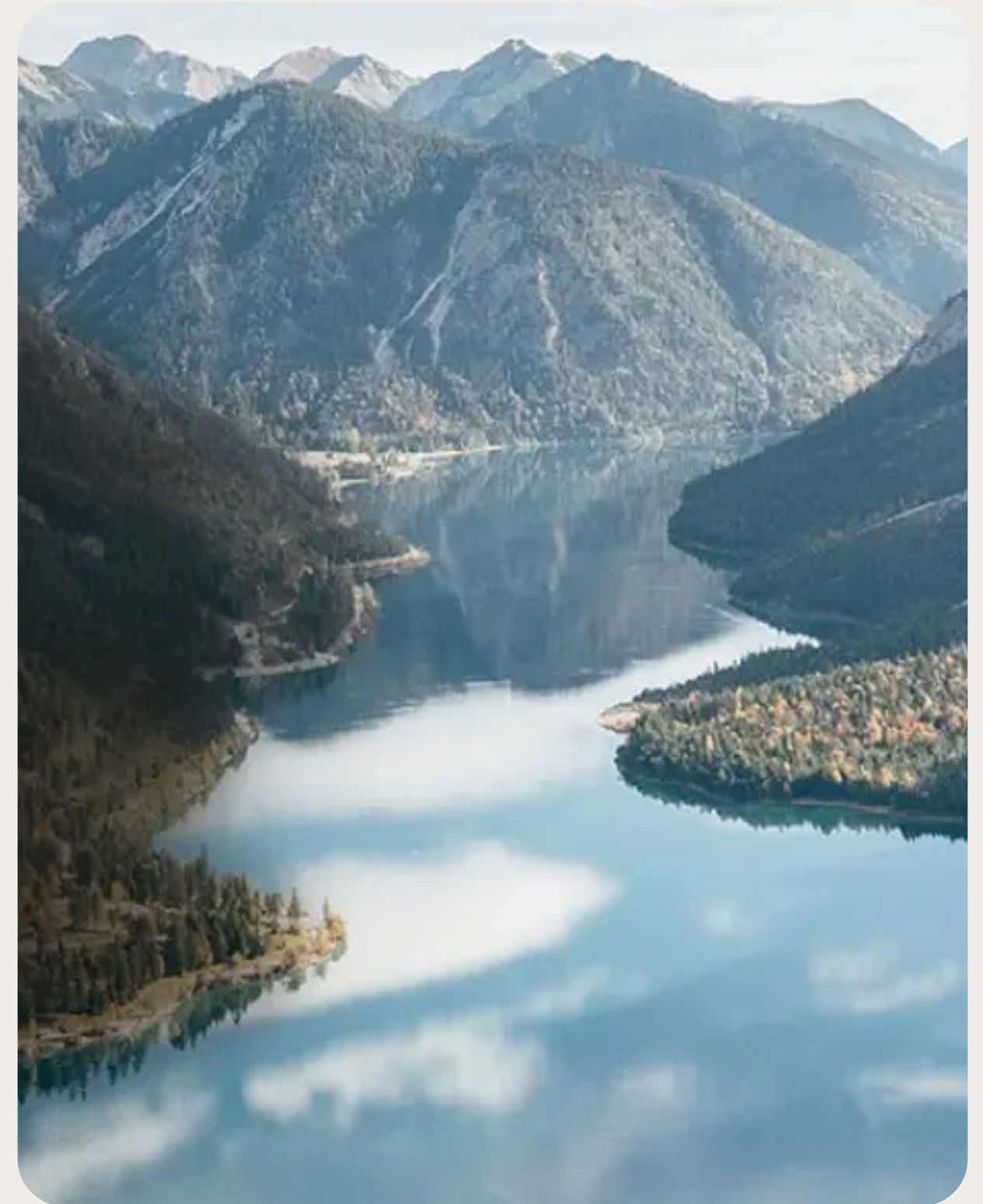
No act is too small, all decarbonising actions we take as an industry will contribute to the reduction of our carbon footprint and to future-proofing our livelihoods and planet.

Today we ask you to consider joining us by challenging what has come to be accepted as 'business as usual'. Instead, take this opportunity to reflect on each and every decision you make when you create a campaign, choose a supplier or invest in a new technology. Use this guide to reinforce to your team the importance of considering and questioning; every carbon savings will set us up for success tomorrow.

This is just the beginning of our efforts to support the industry to work towards a new voluntary framework for carbon measurement and reduction in the media supply chain.

Our next challenge is to focus on transformation in how GHG measurement will support more environmentally efficient industry practices in media planning, buying, reporting and monitoring.

We need the support of the industry to do this, so please consider sharing your approach, and consider ways to appropriately adopt these voluntary standards and solutions that will help facilitate the shift towards an industry that's ready for the net zero transition.



Who made this guide possible?

Steer Team + Climate Science Panel



Contributing organisations



Links and resources

[4A's](#)

[2021 IPCC Report](#)

[2023 IPCC Report](#)

[AdGreen](#)

[AdNetZero](#)

[AdNetZero 2030 ambition](#)

[ANA](#)

[Carbon Trust](#)

[Diageo](#)

[Greenhouse Gas Protocol](#)

[IAB Tech Lab](#)

[IAB Tech Lab Sustainability Playbook:](#)

["Widely considered UX best practice"](#)

[IAB Tech Lab Sustainability Playbook:](#)

["Reduce the number of non-viewable ads"](#)

[IAB Tech Lab Sustainability Playbook:](#)

["Reduce bounce rate"](#)

[IAB Tech Lab Sustainability Playbook:](#)

["Improve load speed"](#)

[Impact+](#)

[IPA Media Climate Charter](#)

[IPCC: The Intergovernmental Panel](#)

[on Climate Change](#)

[ISBA](#)

[L'Oréal](#)

[Mars](#)

[Mastercard](#)

[Procter & Gamble](#)

[Reckitt](#)

[Responsible Marketing Agency](#)

[SBTi: Science Based Targets](#)

[Scope3](#)

[Scope3 + Ebiquity Research Study: Brand Ad](#)

[Spend](#)

[The Paris Agreement – UNFCCC](#)

[The Sustainable Business Book: The Planet](#)

[System](#)

[Unilever](#)

[UN Definition of Climate Change](#)

[WPP Sustainability Report](#)

[York University Ecological Footprint Initiative](#)





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Ad Net Zero Compliance Statement

Ad Net Zero is an international, cross-industry coalition of businesses aimed at decarbonising advertising supply chains and encouraging growth of advertising that drives more sustainable choices and behaviours.

It represents the interests of the advertising industry. It acts as a forum for legitimate contacts between supporters of the advertising industry. It is the policy of ANZ that it will not be used by any company, industry grouping or individuals to further any anti-competitive or collusive conduct, or to engage in other activities that could violate any antitrust or competition law, regulation, rules or directives of any country, or otherwise impair full and fair competition.

Supporters acknowledge that being a supporter of ANZ is subject to the competition law rules and they agree to comply fully with those laws. Supporters agree that they will not use ANZ, directly or indirectly, (a) to reach or attempt to reach agreements or understandings with one or more of their competitors; (b) to obtain or attempt to obtain, or exchange or attempt to exchange, confidential or proprietary information regarding any other company other than in the context of a bona fide business; (c) to further any anti-competitive or collusive conduct; or (d) to engage in other activities that could violate any antitrust or competition law, regulation, rule or directives of any country or otherwise impair full and fair competition.