

# SUSTAINABILITY

## PART ONE

EBOOK SERIES

PERFORMANCE,  
REPROGRAMMED FOR PEOPLE



Make an impact on your  
audience, not on the planet

## KEY TAKEAWAYS

In this short ebook, you'll learn:

- What makes media sustainable
- Terms you need to know about the sustainable ad world
- What's measured, benchmarks, Green Scores, and more
- How to improve sustainability now

## INTRODUCTION

Preparing for the future is out, shaping it is in. This means changing the rules of the game. Until now, the advertising industry has planned, activated and measured digital campaigns based on what technology can do, not on the way people behave. Success has been defined by proxy metrics like CPAs and CPCs, not the actual value an impression brings to your brand.

It's more important to know if your ad was seen by a human who cared about what it had to say- whether it's the message, the images, and the placement, or wider brand goals like carbon-neutrality, social responsibility, or consumer protection. And that's what this ebook

series is all about. We'll help you shape the future of your brand by reprogramming performance for people. First up is sustainability – a daily conversation topic these days.

Sustainability isn't a new concept, but its use in programmatic advertising has been growing thanks to innovations in measurement. The average programmatic campaign produces more than five tonnes of carbon, meaning it's really important

to find a more sustainable way to achieve advertising goals without sacrificing performance.

In this first book on sustainable advertising, we'll start by giving an overview of how we got here, what the landscape looks like now, and give you a framework on how to make an impact with your audience, not the planet.

Let's get into it.

**The advertising industry has discussed sustainability for years, but in 2022 and beyond, innovating and advancing the way we actually achieve this will be paramount to long-term change for all.**

John Goulding,  
Global chief strategy officer  
for MiQ



## 01

## THE SUSTAINABLE CHEAT SHEET

## CARBON, CARBON EMISSIONS, AND CO2 EQUIVALENTS

We all know CO2 and methane emissions are bad for the environment because of their global warming potential. They are officially measured in metric tonnes of CO2 equivalents, or mt CO2e.

## CARBON NEUTRAL VS. NET ZERO

- Carbon Neutral is defined as 100% of emissions have been offset.
- Net Zero is a more stringent requirement that involves extensive reduction in emissions AND offsetting of any remaining emissions.

## OFFSETTING

Investing in carbon removal projects in order to "offset" the impact of activities that cause carbon emissions. Examples: Rainforest, grassland, mangrove & peatland restoration projects.

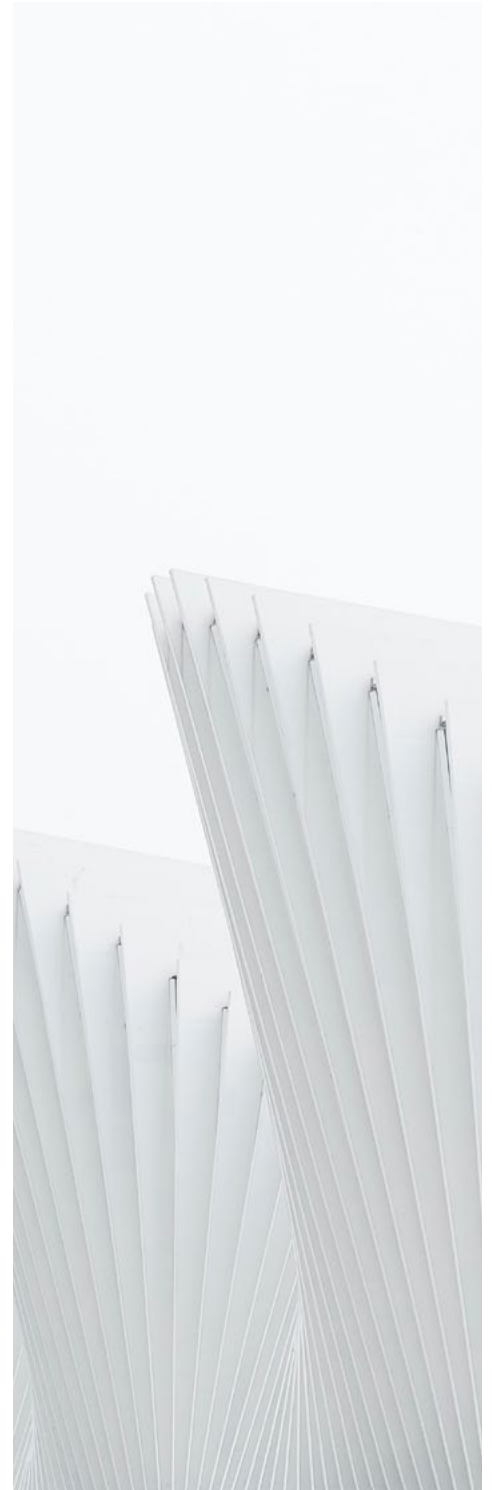
## GREEN SCORE

Our MiQ calculation that estimates the carbon footprint of your programmatic campaign, relative to industry benchmarks.

## CARBON FOOTPRINT

**Online actions come with a small cost - measured in carbon dioxide emissions.**

The internet allows us to send messages, share pictures, download music and stream videos at a touch of a button, but our online habits have a surprising impact on the environment. And it adds up fast - If the internet was a country it would be the third biggest polluter in the world - after the US and China (Source: <https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data>).



## SCOPE 1, 2, AND 3 EMISSIONS

These are the different forms of emissions that companies are responsible for:

SCOPE

1

Direct emissions (e.g. CO<sub>2</sub> emitted from your factories)

SCOPE

2

Indirect emissions (e.g. electricity used in your offices)

SCOPE

3

Supply emissions (e.g. electricity used by your vendors' cloud servers)  
For the programmatic advertising industry, these can be further broken down:

➤ **BASE**

Includes publisher content creation (scope 1, 2, and 3) and the end-user's device emissions.

➤ **CREATIVE**

Includes the networking and CPU costs of delivering and rendering creative and considers the impact of ad size and media type.

➤ **SUPPLY PATH**

Includes the scope 1, 2, and 3 emissions data of each party involved in the ad slot per impression. (e.g. all of the ad tech partners called to bid on an impression).

All online activities  
release a **few grams** of  
carbon dioxide due to  
the energy needed to:



Run your devices



Connect to  
wireless networks



Power data centers  
and servers

## 02

## HOW MANY EMISSIONS ARE OUT THERE AND WHAT CAN WE DO ABOUT THEM?

## THE ADVERTISING VALUE CHAIN



Emissions are generated at each step of the advertising value chain. Even before the campaign can be launched, a significant amount of emissions are created during the initial brainstorming and media production. And it keeps building.

Programmatic is heavily dependent on high-speed data transfusion to

connect the right audience with the right campaign at the right time. The real-time bidding (a.k.a. programmatic) ecosystem further adds a significant load to connecting the right campaign with the right opportunity. Once that's done, loading the ad on the medium also involves an overhead with subsequent emissions. Then the downstream emissions tend to take over.

While exact measurement and attribution across the entire value chain can be a lot, simulation logic can be used to understand the data transfer and costs across different stages of the value chain. Standardizing the energy calculations to the general energy mix of a region, emission estimates can be modeled to reveal an approximate footprint of every impression served.



We're working toward a future where advertisers can actually reduce the impact of their creatives, steer money towards publishers who are responsible and who optimize their sites. We look forward to leading these efforts industry-wide and making this a reality for all.

John Goulding,  
Global chief strategy officer  
for MiQ



## SO HOW MUCH ARE WE TALKING ABOUT?

Online pollution is invisible, so it's hard to see how big the issue is. Let's do a comparison.

### EQUIVALENT EMISSIONS FROM 1 MILLION DIGITAL IMPRESSIONS (MIX OF DISPLAY AND VIDEO)

1.2

metric tons of CO2 emissions



19.8

tree seedlings grown for 10 years



51.9

garbage bags recycled instead of landfilled



4 TONS

annual carbon footprint of 1 person  
(4 tons globally; 16 tons in US)



145,971

smartphones charged



Sources: MiQ for Impression data. The comparisons were established with the help of the Greenhouse Gas Equivalencies Calculator. Average carbon footprint per capita.

But much like not every impression can be treated the same, the footprint of each campaign can be different. It can depend on inclusion lists employed, publishers used, devices targeted, type of creative, region for the campaign, etc.

Let's explore how some of these factors influence overall emissions for the campaign. As a brand, you'll also want to know how you stack up against your competitors, vertical, and region - we need industry benchmarks.



## WHERE TO START

The question everyone (including us!) asks about sustainability is, "So, how bad are we?" It's hard to know where to start. There are companies that can help measure your output, but relevance matters. In real terms, can you assess if your brand is on the right track, relative

to your competitors who have similar challenges and resources - to fairly compare one campaign's emissions against others. So that was our goal - find a way to standardize the conversation so that we were all speaking the same language.

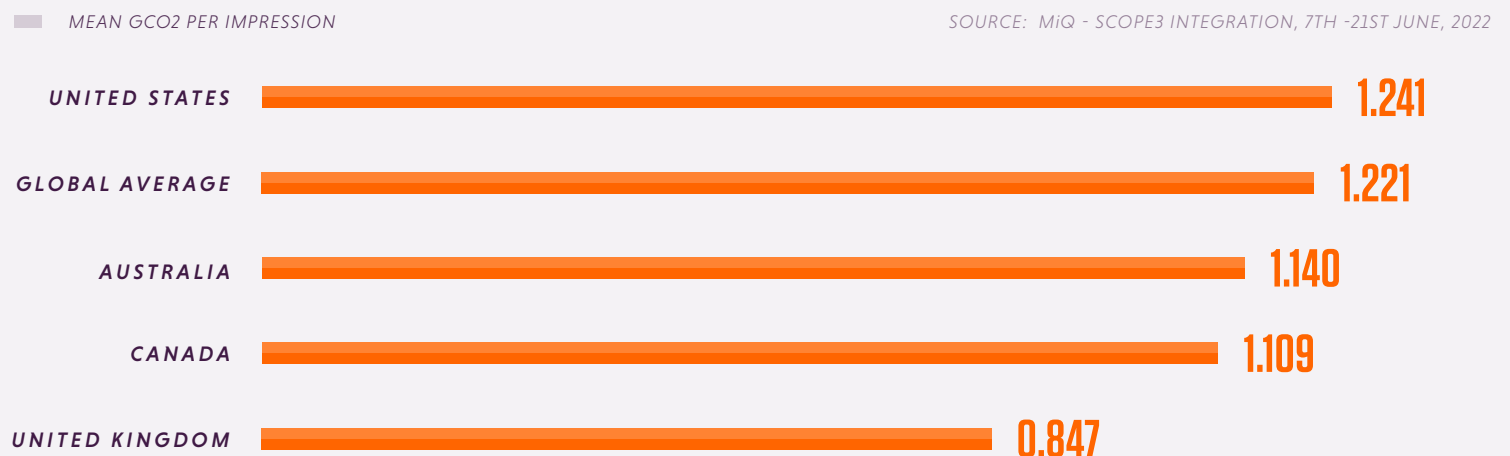
Then, we bake that into an easily digestible 'Green Score' to help clients build visibility into their digital ad ecosystems, programmatic supply chains, and overall contributions to scope 3 emissions.

## GETTING TECHNICAL

Working with a leading data partner like Scope 3 was our first step. Scope3 had the methodology to model scope 3 emissions and we at MiQ had an agnostic and far-reaching range of clients and campaigns globally to create these benchmarks.

We found that an average of **1.22 grams of CO<sub>2</sub> is released for each impression** served within the RTB ecosystem.

### MEAN GCO<sub>2</sub> EMISSION PER IMPRESSION, BY COUNTRY



## 03

## WHAT GETS MEASURED?

## MEASUREMENT CHECKLIST

The industry is adopting sustainable advertising, meaning it's important to ask your partner for a list of what variables are considered during the pre-campaign planning phase vs how the campaign is optimized. Some partners might even have custom exclusion lists for sustainability to exclude the biggest offenders automatically.

Here are some variables to think about:

- Total carbon
- Device analysis
- Domain analysis
- Market analysis
- Ad delivery method
- Supply chain length
- Media optimization
- Creative optimization

## WILL SUSTAINABLE OPTIMIZATIONS HURT CAMPAIGN PERFORMANCE?

The answer depends on your partner, but in practice, the goal is to have it work the same as any campaign with dual KPIs (eg ROAS and viewability) where one is only prioritized if the other condition is met. So if there are two paths leading to a conversion, the optimization partner would select the more sustainable option.

We found some interesting things when we did our study: ►

## A SIMPLE CHECKLIST TO GET YOU STARTED

- ✓ **Start with education** - talk to your most agnostic, unbiased industry partners to understand the landscape and in more detail.
- ✓ Before you can act you need to measure and compare - **Get your Green Score** and a comparison to others in your vertical.
- ✓ **Ask questions about measurement methodologies**, and pre-campaign planning versus optimizations
- ✓ **Improve** - Commit to campaign or category and channel improvements
- ✓ **Review** - The landscape is quickly evolving. Work with a trusted partner with the agility to adapt.





## ▶ WHAT SHOULD YOU CONSIDER WHEN PLANNING YOUR CAMPAIGN?

### Regional energy supply heavily impacts offsetting scores.

Each region's energy mix (coal, wind, etc) affects the emissions score in the associated supply chains. Look at the UK, where 48.5% of the energy mix is sourced via zero-carbon sources. Ad serving is about 1.3 times more carbon efficient than in the US, where about 80% of the energy mix is still sourced from fossil fuels and natural gas.

### DID YOU KNOW?

For a \$100K standard display campaign at a \$2 CPM, **3 tons of CO2** emissions can be saved by just pushing the viewability of the campaign from 70% to 75% while also elevating the CPC by 8%.



**Creative counts.** Video ads use higher data rates and higher quantum of data transfer, leaving higher carbon footprints. On average, a 15-second video impression can generate 85% higher carbon footprints than a standard banner ad. Then we have the compression type and frame rates for dynamic creatives increasing the carbon footprint for creative targeting and delivery.



**The longer the load, the bigger the emission.** What type of creatives an advertiser considers can also affect the carbon footprint along with compression type, frame rate, view length, screen sizes etc. Each creative type can have an impact on the file weights and may require a different amount of data transfer. Some form of optimizations can be achieved by streaming the content versus the traditional way of downloading it.



**Serve above the fold.** Not only are average display impressions served above the fold 1.37 times more likely to result in a click, the effective emission per click for the standard display campaign can also be improved by as much as 12- 23% by optimizing display campaigns using fold positions as the sole constraint.



**Pairing viewability with sustainability goals is a match made in heaven.** Brands are losing about 20- 30 cents on a dollar to non-viewable impressions, causing unnecessary carbon emissions.



**Lack of frequency control doesn't just impact attention.** People see anywhere between 4000- 10000 ads a day which has an adverse effect on the ROAS metrics but brands need to understand the environmental impact of these un-optimized campaign strategies.

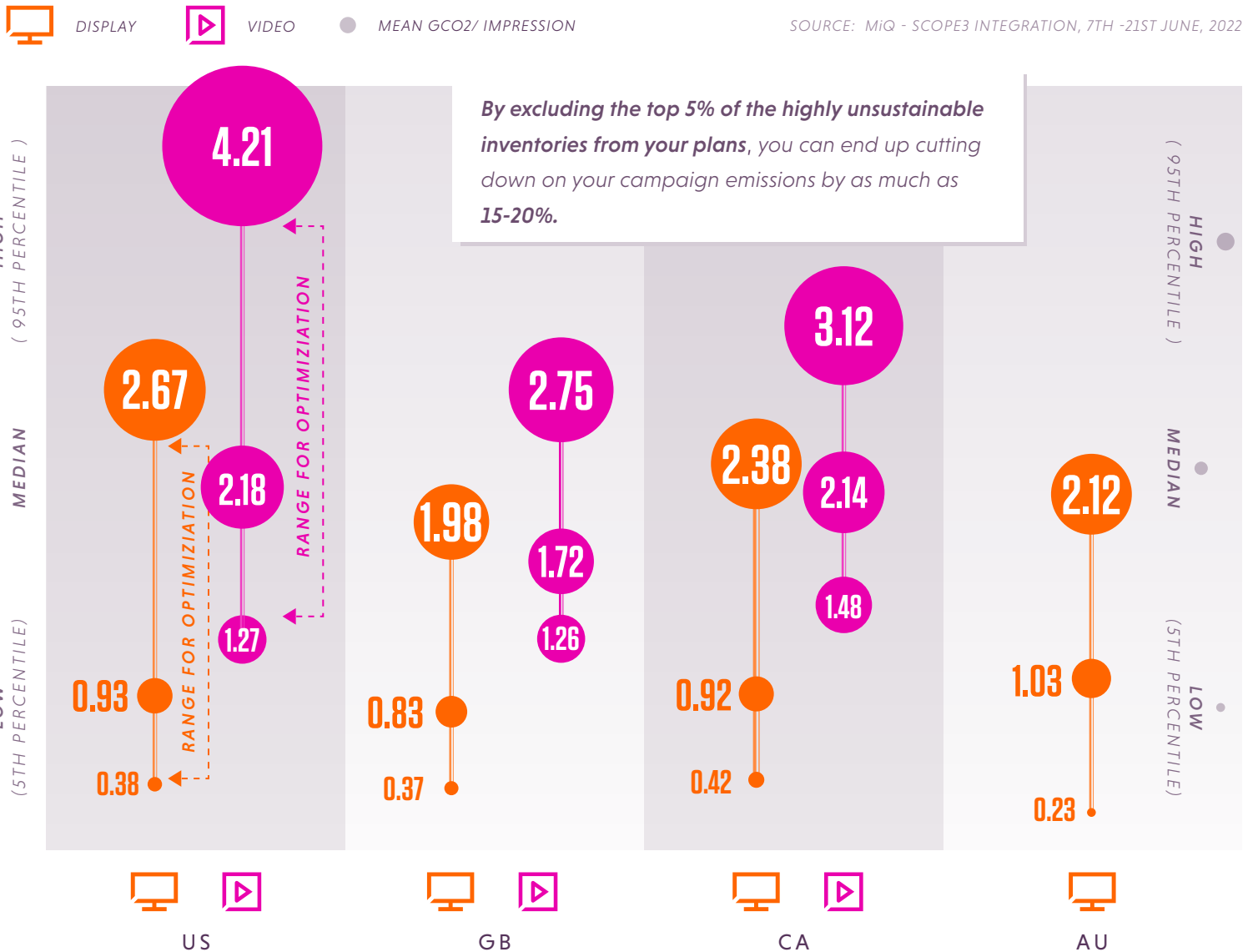


**Balancing performance and sustainability - not necessarily a trade-off.** Sustainability can be treated as an additional constraint with multi-KPI custom bidding scripts.

## 04

# BY THE NUMBERS: BENCHMARKS TO GET YOU STARTED

## MEDIAN EMISSION DISTRIBUTION, BY MEDIA TYPE AND COUNTRY





## CREATIVE EMISSIONS ACROSS POPULAR CREATIVE FORMATS

GCO2/IMPRESSION

SOURCE: MiQ - SCOPE3 INTEGRATION, 7TH -21ST JUNE, 2022

	CREATIVE FORMAT	SIZE SPECS	EMISSION PER 1000 IMPRESSIONS SERVED	
—	MOBILE BANNER	300 X 50	5.37	■
—	MOBLIE TALL BANNER	320 X 100	9.82	■
■	SQUARE	250 X 250	22.39	■
—	LEADERBOARD	728 X 90	23.59	■
—	LEADERBOARD (GOOGLE)	728 X 90	23.76	■
—	MOBILE LEADERBOARD	320 X 50	25.49	■
■	MEDIUM RECTANGLE	300 X 250	26.89	■
—	SUPER LEADERBOARD	970 X 90	31.49	■
■	LARGE RECTANGLE	336 X 280	33.73	■
■	SKYSCRAPER	160 X 600	34.5	■
■	HALF PAGE UNIT	300 X 600	64.18	■
■	BILLBOARD	970 X 250	85.2	■
■	FACEBOOK FEED VIDEO	600 X 600	101.95	■
■	PORTRAIT	300 X 1050	114.1	■

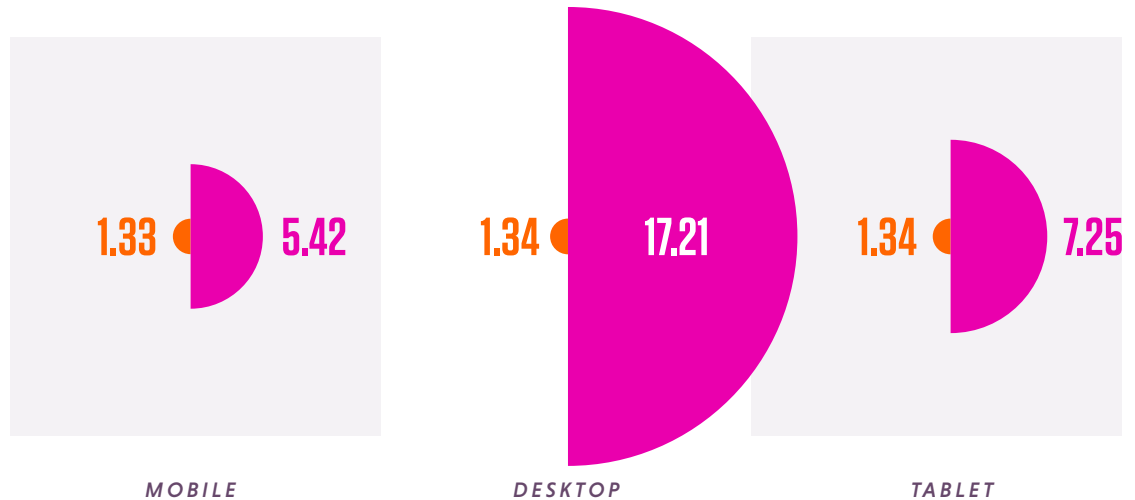
The type of creatives an advertiser considers can have a large scale impact on the carbon footprint along other considerations like frame rate, view length, and screen sizes. Each creative has a direct impact on the energy needed to transfer the data.

## EMISSIONS ANALYSIS, BY VIDEO AND DEVICE TYPE

■ GCO2/IMPRESSION ■ GC02/ VIDEO COMPLETES

SOURCE: MiQ - SCOPE3 INTEGRATION, 7TH -21ST JUNE, 2022

Of course, the **energy** required to transfer video content is higher than traditional display, but how high?



## EMISSIONS PER CLICK, BY DEVICE TYPE AND FOLD POSITIONS

HIGH EMISSIONS  LOW EMISSIONS

SOURCE: MiQ ADSAFE - SCOPE3 INTEGRATION, 7TH -21ST JUNE, 2022

DEVICE TYPE	FOLD POSITION	AVG GC02/IMPRESSION	NORMALIZED PERFORMANCE	AVG GC02/CLICK	
MOBILE	ABOVE THE FOLD	0.875	10	624.23	<p>Not only are average display impressions served above the fold 1.37 times more likely to result in a click, the effective emission per click for the standard display campaign can also be improved by 12-23% by optimizing display campaigns only using fold positions as the constraint.</p>
	BELOW THE FOLD	0.893	8.2	745.15	
DESKTOP	ABOVE THE FOLD	1.471	9.3	6873.5	
	BELOW THE FOLD	1.437	8.1	7123.4	
TABLET	ABOVE THE FOLD	0.782	7.4	794.3	
	BELOW THE FOLD	0.806	6.8	835.7	

## 05

## WHAT'S NEXT? HOW TO EXECUTE GREENER CAMPAIGNS



**Start with education and book our MiQ Unlocked speakers to come and talk to your company about sustainability.** Is sustainability a passing trend in the ad world? Nope. With net-zero commitments playing out over the next 10-20 years, make some long-term plans now.



**Measure and compare when you get your Green Score and comparison to others in your vertical.**

Your business goals are a top priority but you have to ask yourself a bunch of questions.

- *How you can be smarter in balancing your KPIs?*
- *What is your brand's carbon offsetting commitment?*
- *Where in the emission chain can changes be made and how would this flow to advertising?*
- *What can you change now on an individual campaign level vs. what needs careful consideration for longer-term brand marketing tactics?*
- *What about an agnostic approach when selecting a carbon data partner for a more rounded view of your campaign's emissions and how to reduce them?*



**Improve by committing to annual or category improvements.**

There are so many variables making it important to start with testing different strategies and formats to see how it impacts your specific performance vs. viewability vs. carbon emissions and finding the sweet spot before it's urgent.



**Question sources and methodologies.**

A consultative approach is best in the early days of testing sustainability data since everyone from advertisers, to agencies, to tech platforms, to publishers has a responsibility and a vested interest for the future. Sustainability needs to be considered holistically, and data analytics should approach measurement in the same way.

## EXPERT INSIGHTS

**MiQ Unlocked is an opportunity to upskill in all things programmatic.**

Whether it's for big groups or small teams, whether you're all in one place or all dialing in online, or whether you're programmatic newbies or you're right at the forefront of ad tech, our Unlocked sessions are all tailored to deliver the knowledge you need in whatever way works best for you.

[FIND OUT MORE](#)



Here at MiQ, we are taking incremental steps to run a more sustainable business and are very excited about the future. We plan to drive standardized measurement to support our industry and our customers to all be more responsible when it comes to sustainability. Join us on this journey (more ebooks are on their way!) as we explore how sustainability and attention connect.



Wow! That was a lot. Thank you for making it to the end. Reach out to your sales rep if you are interested in having us take you or your team through the study or get started with your own sustainable programmatic campaigns.

GET IN TOUCH