



THE CARBON EMISSIONS
GENERATED BY UK ADVERTISING

**ADVERTISED
EMISSIONS**

The
Temperature
Check
2022

Foreword

In their 2022 report, the IPCC singled out a crucial new component to help address our climate emergency: demand-side emissions. After many years focused on the supply-side, scientists have specifically called out the need for changes in behaviour and reductions in consumption in order to reduce emissions 46% by 2030.

Over my 14 years working with people from climate scientists to youth activists, the communications industry has only recently become the focus of conversations about the climate crisis. As a \$600 billion dollar global industry that architects desire for high carbon goods and services – it's time to give it proper scrutiny.

The UK's Advertised Emissions report identifies the scale of the challenge: the uplift in sales generated by advertising will amount to 208 million tonnes of CO₂e in 2022. This makes advertising responsible for 32% of the carbon footprint of every single person in the UK. The ads we're exposed to every day are fuelling the climate crisis.



Tom is the CEO and Founder of GSCC. GSCC is an international network of public relations professionals working to build just, inclusive, equitable and fact-based solutions to the climate crisis.

Tom was previously Executive Director of Strategic Communications at the European Climate Foundation and prior to that European Director of Government Relations at Apple.

While the advertising industry is behind other industries on this, credit to UK advertisers, agencies and media owners for being prepared to take on this challenge. The report raises challenging questions and as has happened with Financed Emissions, the industry will need to work together to tackle them with government support.

As communicators, we know how vital the industry's skills can be in changing perceptions, tackling misinformation and driving necessary behaviour change. When we apply those skills to dismantling the stranglehold of fossil fuel driven infrastructures, we can truly begin to see the scale of the problem and I hope that this report will inspire more people to repurpose their skills to this end.

For right now, the world needs bold ideas that can shift our collective imagination to a more just, more equitable and more inclusive world. We need new visions and new stories. People need to see that the change that is necessary is indeed possible. At its best, the advertising industry is capable of this. I hope this report inspires the industry to face up to its responsibility and take on the challenge.

Tom Brookes, CEO & Founder
Global Strategic Communications Council (GSCC)

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Executive Summary

Advertising is a \$600 billion industry and every day, virtually every human on the planet is touched and influenced by it on their phone, TV, radio, billboard or computer. **It is arguably the biggest engine of societal change in existence.** As the architects of desire, the industry will play a vital role in determining whether the world will successfully transition towards a low-carbon, sustainable society.

Advertising can accelerate the adoption of goods, services, behaviours and attitudes which are consistent with a profitable and progressive transition to a Net Zero economy. To do this, the advertising industry requires a framework to enable discussion

and fact-based analysis so those who commission, create, place display and regulate advertising can measure and reduce the emissions associated with the consumption it generates.

Borrowing from the idea of Financed Emissions, already established in the finance industry, Advertised Emissions is an idea that allows the industry to take full responsibility for its climate impact. **Advertised Emissions are the greenhouse gas (GHG) emissions that result from the uplift in sales generated by advertising.**

A year on, from launching the concept at COP26 in Glasgow, this update shows that in the UK:

- **Advertised Emissions have risen by 11% from 2019 to 2022 to 208 millions tonnes of CO₂e**
- **Advertising has responsibility for 32% of the carbon footprint of every single person in the country.**

Time is running out to avert the worst effects of climate change. Given the increase in Advertised Emissions and in order for the industry to deliver a 50% reduction by 2030, in line with the Paris Agreement, it needs to find ways to achieve a steep reduction:

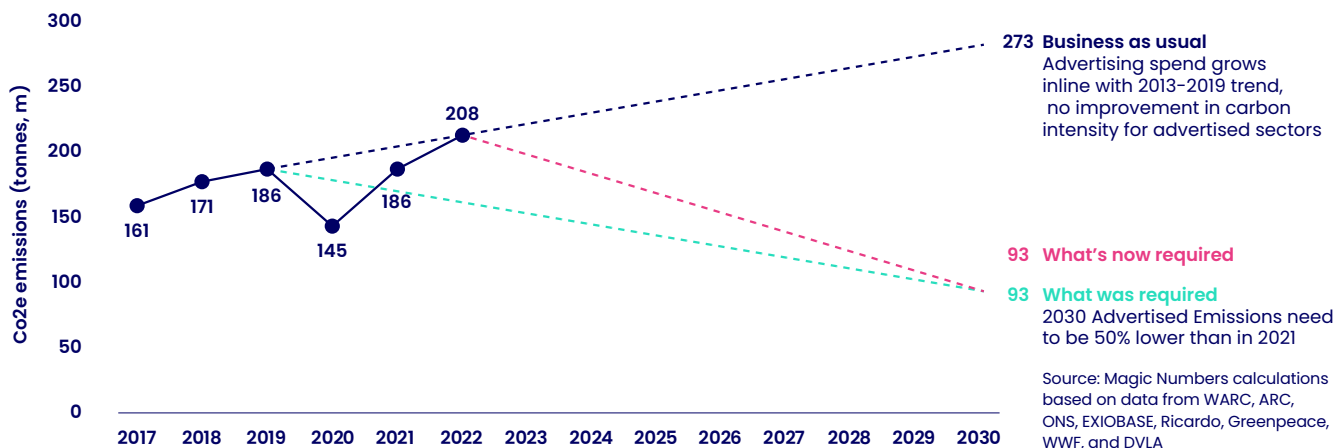


Figure 1

Advertised
Emissions
have risen by
11%
from 2019–2022



it means advertising
has responsibility for
+32%
of the annual carbon
footprint of every
single person in the UK

Figure 2

Through analysis of the data, **the best option to achieve the reduction is to reduce ad spend on the highest carbon products in the most carbon-intensive categories (eg. fossil fuels, transport such as automotive and flying as well as red meat).**

These are a focus for regulatory pressure in the UK, in order for the country to achieve its ambitious target of a 78% reduction in emissions by 2035, and globally given the focus from the IPCC and UNEP on reducing demand-side emissions.

A reduction in ad spend in these carbon-intensive categories can happen at an organisational level, through shifting the client portfolio using the **“Advertiser Carbon Index”** (see Section 4: pg 19).

To achieve the necessary decline in Advertised Emissions at the industry level will require a new form of radical leadership. This is invited with the question: **What if the industry came together and actively encouraged the government to ban advertising for carbon-intensive categories?**

To make up for the short-fall in revenue, organisations in the industry can diversify by identifying their transferable skills and capabilities, decouple them from the current outcome of driving consumption to one that leads to a thriving and sustainable business and society.

Recommendations

- For willing members of the ecosystem to continue to co-create a tool that all relevant organisations in the ecosystem can use to measure and reduce their Advertised Emissions. Purpose Disruptors are happy to continue to lead this process.

- For an independent scientific expert body (such as the Science-Based Targets Initiative) to produce common rules for accounting for Advertised Emissions and for setting science-aligned goals and targets for their reduction, to ensure credibility
- Champion and encourage the embedding of Advertised Emissions across the advertising ecosystem with the support of industry bodies such as the Advertising Association and IBSA)
- For agencies and media owners to apply the Advertiser Carbon Index to their current and respective client portfolio
- For agencies, media owners and brands that are members of the Race to Zero to adopt Advertised Emissions
- For Advertised Emissions to be integrated into an extended definition of Scope 3 within the Greenhouse Gas Protocol and Science-Based Targets Initiative, advertiser and agency Scope 3 emissions reporting and Action 5 of the Advertising Association’s Ad Net Zero initiative
- The industry to discuss and debate the radical leadership opportunity to actively encourage the government to ban advertising for carbon-intensive categories

The choices of those who work in the advertising industry echo across society. As we are just 7 years away from needing to reduce our global carbon footprint by 50%, those choices also echo across time. Advertised Emissions can provide the framework and metric to have the challenging, but life-affirming conversations about how the industry can thrive in creating a more sustainable future and what are the actions it needs to take to get there.

What are Advertised Emissions?

Advertising drives consumption and consumption drives carbon emissions.

To take full responsibility for its climate impact, the advertising and marketing communications industry needs to not only measure the impact of its operational emissions (i.e. offices, business travel, creating the work and placing the work on various media platforms) but also measure and reduce the impact of the incremental consumption it generates and the consumption swaps it instigates. 'Advertised Emissions' provides the methodology to enable the industry to do just that.

Advertised Emissions are defined as 'the uplift in Greenhouse Gas (GHG) Emissions that results from the increase in sales generated by advertising'.

Adopting Advertised Emissions as a metric would ensure the industry is fully committed to helping meet the Paris Agreement which states that global warming must be limited to well below 2°C, preferably to 1.5°C, compared to pre-industrial levels¹. To achieve this, the UN states that greenhouse gas (GHG) emissions² must fall by 50% by 2030 and reach net zero emissions no later than 2050³.

They are calculated with the formula:



Figure 3

1 <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>
 2 'Greenhouse gas emissions' (GHG) refer to carbon dioxide and the five other gases set out in the Kyoto protocol (methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride)
 3 <https://press.un.org/en/2020/sgsm20411.doc.htm>

The Advertised Emissions concept was inspired by 'Financed Emissions' – a similar idea already embedded within the global finance industry. Financed Emissions are 'the GHG emissions associated with a financial institution's loans and investments in a reporting year'⁴. In January 2022, Blackrock Inc., the world's largest asset manager, calculated their Financed Emissions as 330 million tonnes of CO₂e⁵ – more than the carbon emissions of Malaysia, with a population of 32 million people.

Advertised and Financed Emissions are similar as they enable each industry to measure and reduce the climate impact of the elements that they have influence over i.e the loans and investments made, or the communications put into the world to promote a particular product or service.

Recognising the potential of Advertised Emissions, the United Nations Framework Convention on Climate Change (UNFCCC) invited Purpose Disruptors to launch their Advertised Emissions report at COP26 in Glasgow, in November 2021⁶.

In June 2022, Advertised Emissions was included as a Leadership Practice within the UNFCCC's 'Race to Zero' criteria. Race to Zero⁷ (RTZ) is a global campaign to rally leadership and support from business, cities, regions and investors to take climate action. It includes organisations that cover over 50% of global GDP. Members include⁸: Dentsu International, WPP Group, Publicis Groupe and Interpublic Group of Companies along with Procter & Gamble, Unilever, Sky, McDonalds, Meta and Microsoft.

Purpose Disruptors have also convened a leading group of brands, media owners and agencies to co-create a methodology for organisations to calculate their Advertised Emissions. This will be made available to the industry.

For more information on the formula, data, and who Advertised Emissions are for, please visit: www.purposedisruptors.org/advertised-emissions and download our original report. For more information on the Advertised Emission Working Group, please visit: [here](#)

4 https://www.wwf.org.uk/sites/default/files/2021-05/uk_financed_emissions_v11.pdf

5 <https://www.politico.com/news/2022/02/01/wall-street-giant-climate-impact-blackrock-00003447>

6 <https://www.youtube.com/watch?v=YDHx-CgkduI>

7 https://climatechampions.unfccc.int/wp-content/uploads/2022/06/EPRG-interpretation-guide-2.pdf?mc_cid=3b4d37e1fb&mc_eid=UNIQID

8 <https://unfccc.int/climate-action/race-to-zero/who-s-in-race-to-zero>

Updating the numbers: Advertised Emissions since 2019

The UK's Advertised Emissions in 2019 totalled 186 million tonnes of CO₂e – the equivalent of adding 28% to the carbon footprint of every person in the UK. In this updated report econometrics agency Magic

Numbers calculates the UK's Advertised Emissions for 2020 and 2021, as well as a projected figure for 2022.

The analysis has been done using:

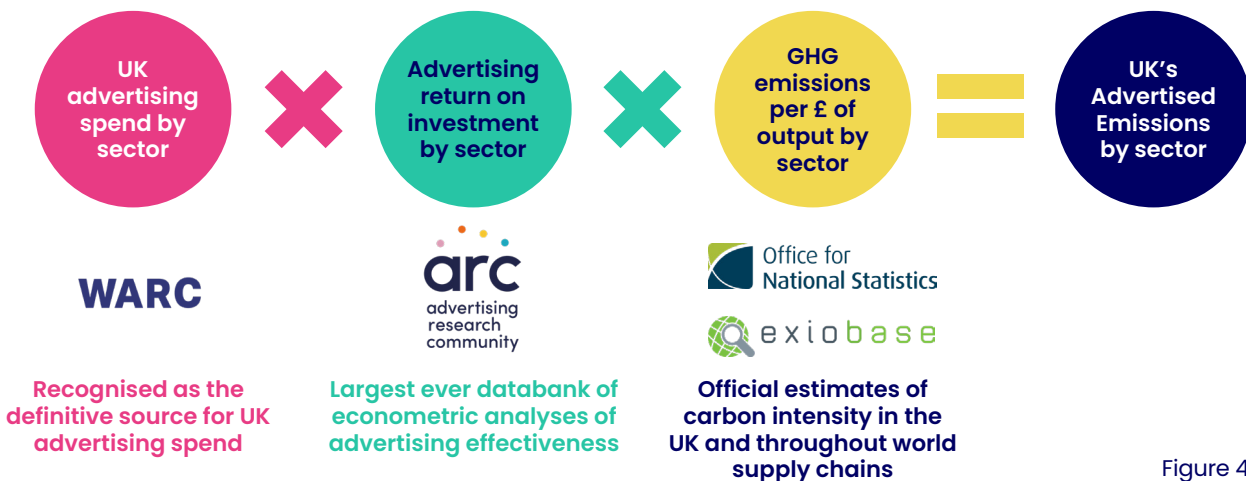
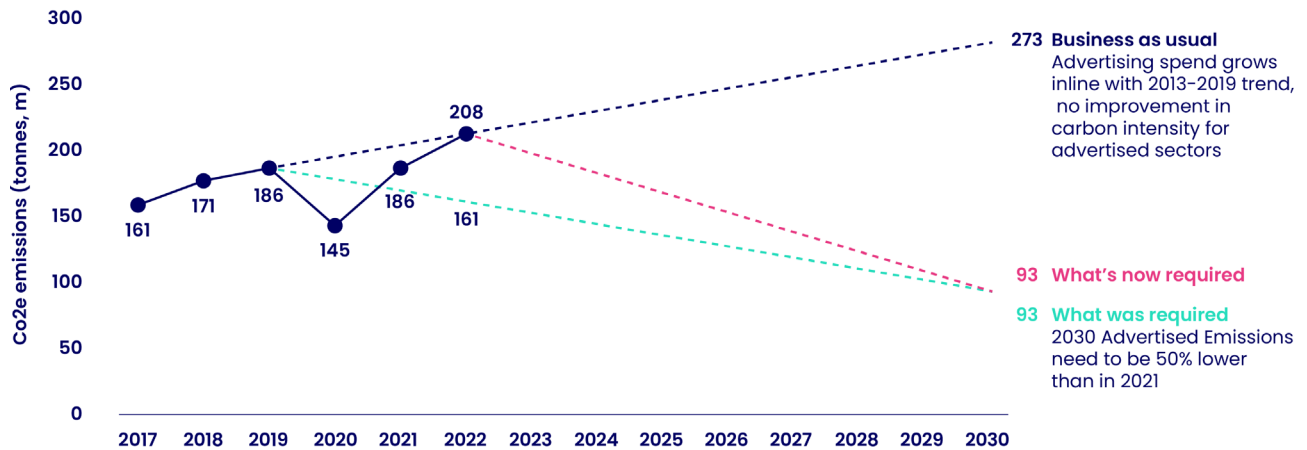


Figure 4

For more information please see: Appendix: Research Methods (pg 37 - 38)

Advertised Emissions are back on BAU trajectory, above pre-pandemic levels



Source: Magic Numbers calculation based on data from WARC, Exiobase, ARC, ONS, BEIS, Ricardo, Greenpeace, WWF and DVLA

Figure 5

What does the latest data tell us?

Advertised Emissions have risen 11% from 186 million tonnes CO₂e in 2019 to 208 million tonnes CO₂e forecast by the end of 2022 (figure 5). 208 million tonnes of CO₂e is equivalent to running 56 coal-fired power plants for a year. The increase means that **the UK advertising industry now influences, and is responsible for, an increase in the carbon footprint of every citizen in the UK', from 28% in 2019 to 32% in 2022**. We can also see that in 2020 Advertised Emissions reduced by 22% to a total of 145 million tonnes CO₂e on the previous total in 2019.

Using 2019 as the baseline year, we have shown the anticipated increase in Advertised Emissions if we continue with business as usual, taking into account predicted growth in ad spend (the **'Business as Usual'** line). We have also indicated the decline required to achieve a 50% reduction in emissions by 2030 from the 2019 baseline year the (the **'What was required'** line). However, because Advertised Emissions have risen 11% from 2019 to 2022, we now require a steeper reduction in Advertised Emissions in the remaining time we have left, as illustrated by the **'What's now required'** line.

If the industry reduced its Advertised Emissions as originally required they would have been 161 million tonnes CO₂e in 2022. Instead, they are 208 million tonnes CO₂e. Which means, In 2022, the industry's Advertised Emissions are predicted to be 29% higher than what they should have been, compared to the **'What was required'** line.

The 11% rise from 2019 to 2022 illustrates that the advertising industry is not currently taking responsibility for reducing the emissions it has influence over. Yet, within the 2019 to 2022 period there was a reduction. What can be learnt from that brief period that can help the industry take the necessary action to return to the reduction required?

CO2e per capita vs Ad spend per capita

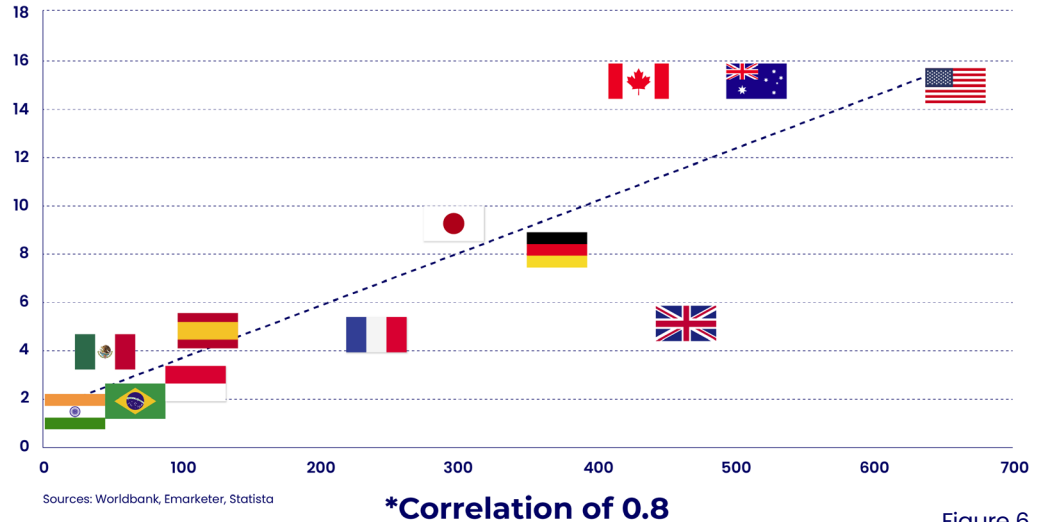


Figure 6

Total advertising spend has a strong relationship with total Advertised Emissions

Unsurprisingly, the most significant factor was the coronavirus pandemic. The upheaval and trauma it caused resulted in a significant economic and societal contraction which was painful for many. The impact on the UK advertising industry alone was a 20% drop in revenue as ad spend was reduced, in 2020. This 20% drop in revenue equated to a 22% drop in Advertised Emissions. **We can therefore suggest that a 1% drop in total advertising revenue more or less equates to a 1% drop in Advertised Emissions.** The strength of the relationship between ad spend per person and carbon footprint per person is borne out in figure 2. Across 10 countries studied, it shows a very strong correlation (0.8) between the amount of advertising a citizen sees (ad spend per capita, on the horizontal axis) and the citizen’s carbon footprint (CO2 per capita, on the vertical axis) – see figure 6.

During the pandemic the advertising industry over-delivered in emissions reductions

As a result of this overall contraction and curtailment in activity due to the pandemic, one positive outcome was that the world experienced a global drop in total carbon emissions of 7% which, by coincidence, was almost exactly the year on year reduction target required to meet the Paris Agreement stated by the UN the previous year (7.6%⁹). The advertising industry contributed to this overall reduction with a 22% decline in its Advertised Emissions over the same period, from 2019 to 2020.

For a brief period, carbon emissions were on the correct downward trajectory. Alas, since then, they have rebounded.

9 <https://www.unep.org/news-and-stories/press-release/cut-global-emissions-76-percent-every-year-next-decade-meet-15degc>

Ad spend is not the only thing that causes a change in Advertised Emissions

There are three factors that lead to year to year variations in Advertised Emissions:

1. **Ad spend** (how much paid for advertising there is)
2. **Emissions intensity** (how much carbon is emitted during the creation, distribution and use¹⁰ of the product or service being advertised, per £1 million demand)
3. **Ad spend distribution** (the share of the ad spend across the 19 categories allocated mostly to greener or dirtier categories)

In Figure 7 we can see the relative importance of each of these factors in their contribution to the yearly variation in Advertised Emissions.

Between 2019 and 2020, all factors were reducing, so there was less advertising overall. It took less emissions to produce £1 million worth of demand for a given category, and the share of greener categories being advertised increased.

Between 2020 and 2021, the vast majority of rebound was due to ad spend increase. There was a minor increase in emissions to produce £1 million worth of demand for a given category, but the share of spend going to greener categories continued to increase.

Between 2021 and 2022, again, ad spend was the most important factor in driving up Advertised Emissions. The increase in emissions to produce £1 million worth of demand for a given category was almost cancelled out by the continued increase in greener categories taking more share.

2019 – 2022 Advertised Emissions (million tonnes CO2e)

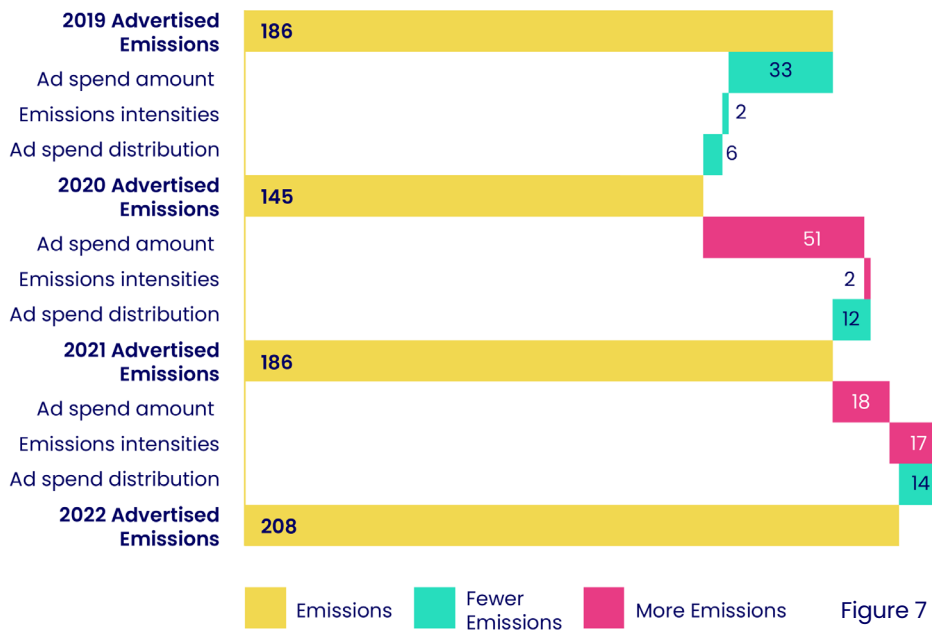


Figure 7

¹⁰ 'Use' only applies to the Automotive sector. It does not apply to the 18 other sectors as this data is not recorded. This means that the total Advertised Emissions figure we have calculated will be lower than the actual.



Carbon-intensive categories have a disproportionate impact in driving Advertised Emissions

Here is the contribution of each of the 19 sectors to the UK Advertised Emissions total of 208 million tonnes CO₂e in 2022¹¹. Many of the categories contain a myriad of sub-categories that make it hard to isolate specific examples. For example, Fossil Fuels are contained within ‘Utilities’. We know that red meat (beef and lamb) is a carbon-intensive product¹², but consumption of red meat is spread across multiple categories (supermarket sales are contained within ‘Food’ and restaurant sales are contained within ‘Retail’). Automotive, i.e. sales of cars, vans and trucks) and Transport and Tourism, which includes flights, holidays and holiday destinations, are easier to isolate what is being sold:

Advertised Emissions for 19 Available Sectors

Rank	Categories	AE emissions (million tonnes)	% of Total AE
1	Automotive	69	33%
2	Telecoms & utilities	46	22%
3	Leisure & entertainment	17	8%
4	Media & publishing	14	7%
5	Technology & electronics	13	6%
6	Transport & tourism	10	5%
7	Food	8	4%
8	Toiletries & cosmetics	5	2%
9	Government & non-profit	5	2%
10	Household & domestic	5	2%
11	Retail	4	2%
12	Pharma & healthcare	3	1%
13	Business & Industrial	2	1%
14	Clothing & accessories	2	1%
15	Soft Drinks	2	1%
16	Alcoholic drinks	1	1%
17	Financial services	1	1%
18	Tobacco	0.4	0.02%
19	Politics	0.2	0.01%
	TOTAL	207.6	

Table 1

¹¹ Source: WARC database, 2022

Automotive

In 2022, Automotive was the largest contributor to Advertised Emissions (33% of the 208 million tonnes CO₂e), yet it only represented 6% of ad spend. This

is due to a number of factors. Cars are high carbon products. The carbon footprint of building and running an average petrol car is c.24 tonnes CO₂e¹³. It would take a British person, with an average diet, 8 years to consume the amount of food equivalent to that¹⁴. Within our calculation, Automotive, unlike the other sectors, includes emissions due to the 'Use Phase' i.e. the emissions that result from driving the car for its lifetime. The other 18 categories do not include 'Use Phase' data as it is not readily available.

The total Advertised Emissions figure would be higher if the Use Phase data was available for all categories.

Whilst a significant proportion of automotive advertising has recently shifted to highlight car manufacturers' fully electric or hybrid vehicles, 62% of new cars sold in the first half of 2022 were still fully petrol or diesel¹⁵. Econometrics attribution shows that advertising a manufacturer's hero electric or hybrid alternatives still drives up sales of petrol and diesel models. Total sales of cars during the pandemic would have been higher, save for a shortage of semi-conductor chips.

Ad Spend and Advertised Emissions for Automotive have risen strongly post-pandemic

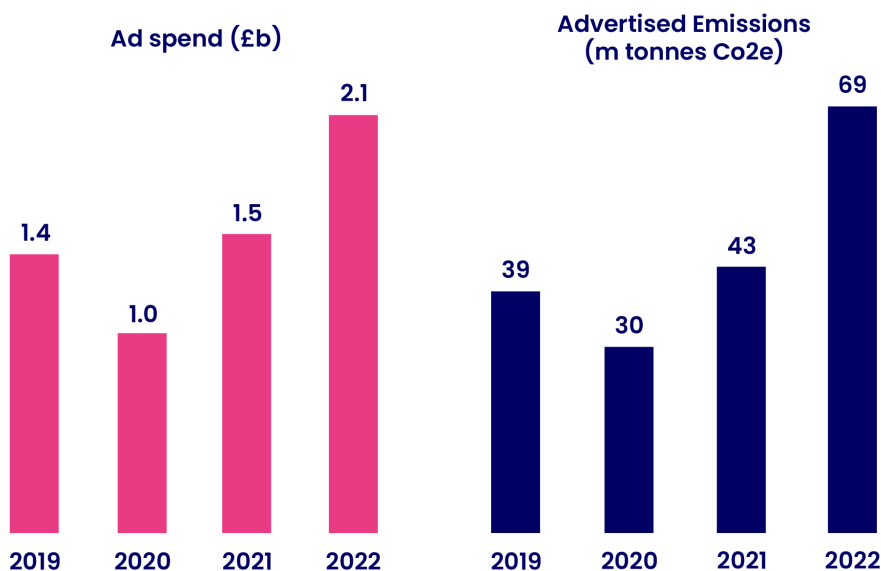


Figure 8

¹² <https://www.wri.org/insights/6-pressing-questions-about-beef-and-climate-change-answered>

¹³ <https://www.zemo.org.uk/assets/workingdocuments/MC-P-11-15a%20Lifecycle%20emissions%20report.pdf>

¹⁴ Average carbon footprint of a UK resident – 3 tonnes of CO₂e: <https://www.bbc.co.uk/food/articles/carbon#:~:text=We%20Brits%20individually%20create%20on,how%20do%20we%20reduce%20this%3F>



The lifetime carbon footprint of an average EV is still significant, currently it is only 21% lower than an average petrol car¹⁵. A standard petrol car has estimated lifetime emissions of 24 tonnes CO₂e, whereas an EV is 19 tonnes CO₂e. This is because it takes relatively more carbon to produce an EV and its battery, and the majority of people will be charging an EV using electricity generated by the burning of fossil fuels.

So switching promotion towards new EVs is only part of the answer. To drive the necessary declines in the sector's Advertised Emissions, marketers will have to use a range of tactics that promote 'mobility as a service'. That includes promoting used cars over

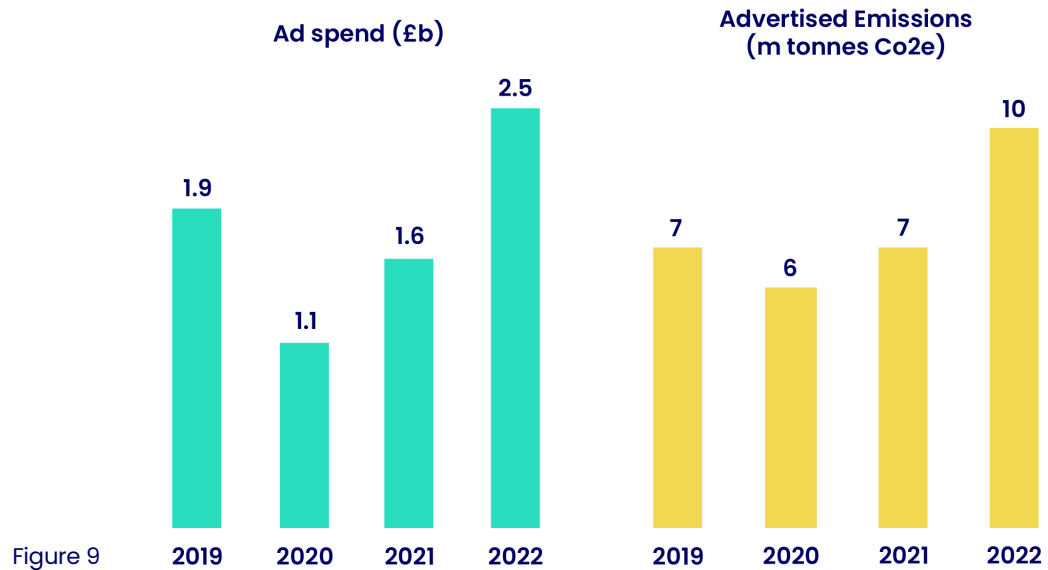
new, finding new revenue streams like after-sales service propositions, designing new services that allow people to share cars rather than own them, and promoting wider forms of micro-mobility such as e-bikes.

The disproportionate contribution to total Advertised Emissions from the Automotive sector, relative to its limited ad spend, offers the possibility that overall Advertised Emissions can be reduced quickly and impactfully by focusing efforts on a small number of carbon-intensive categories. **Indeed it is hard to see a situation where total Advertised Emissions are sufficiently reduced without rapid decline in the emissions from Automotive.**

¹⁵ <https://www.gov.uk/government/statistics/vehicle-licensing-statistics-april-to-june-2022/vehicle-licensing-statistics-april-to-june-2022>

¹⁶ <https://www.zemo.org.uk/assets/workingdocuments/MC-P-11-15a%20Lifecycle%20emissions%20report.pdf>

Ad Spend and Advertised Emissions for Transport and Tourism have also risen strongly post-pandemic



Transport and Tourism

The Transport and Tourism sector was deeply affected by the pandemic. The opportunity to travel was highly restricted, particularly due to the closing of borders. As a result, there was a natural reduction in ad spend between 2019 and 2020 of £0.8 billion.

The easing of Covid restrictions and a return to business as usual (almost) has led to a return to spend by the sector, and a significant increase in its Advertised Emissions, which have risen by 46% between 2019 to 2022 (from 7m tonnes CO₂e to 10m). From the low point during the pandemic in 2020 to 2022, emissions driven by advertising have increased by 77%. (See Figure 9).



We see the increase reflect a call for consumers to return to a carbon-intensive activity: flying.

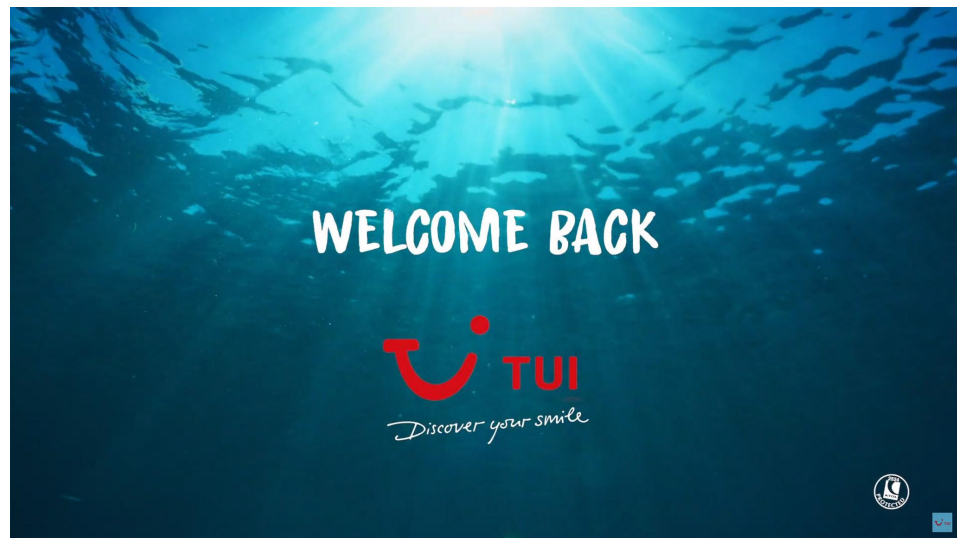
British Airways also created the 'You make us fly' campaign.¹⁷ A line that reminds us that planes only fly when we demand them.

British Airways



Copyright © British Airways, 2021

TUI



Copyright © Tui, 2020

¹⁷ <https://www.youtube.com/watch?v=NQIbrvWTPus>

Tourism Australia



Copyright © Tourism Australia, 2022

To reverse these rapid increases in this sector's Advertised Emissions, advertisers will need to tackle some fundamental questions about what they are selling, and to whom. Destinations will have to focus on recruiting visitors from nearby countries and promoting alternative lower-carbon forms of travel such as rail, rather than promoting other forms of long-distance travel, and airlines will need to shift their business model from a focus on growing volume towards growing value.

To support this reduction in the sector's Advertised Emissions, secondary industries that currently rely on travel will need to transition towards low-carbon alternatives – such as the conference and event sector pivoting towards virtual events.

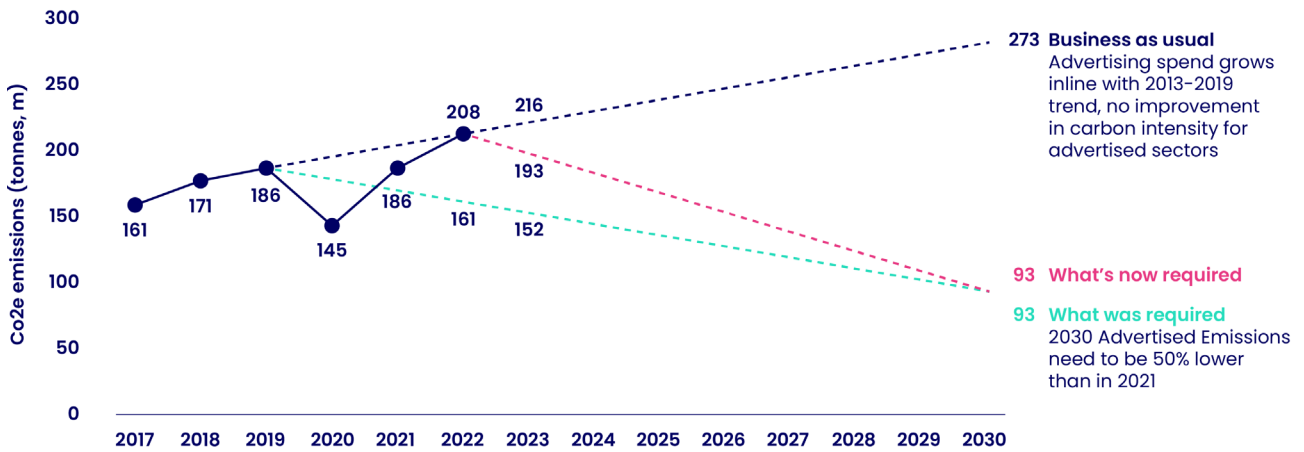
As with the automotive sector, limiting advertising for a carbon-intensive category like flight-related advertising can have a disproportionate impact in reducing total Advertised Emissions.

What has the period from 2019 to 2022 taught us?

1. It is possible for the UK advertising industry to reduce its Advertised Emissions swiftly and effectively, but the lived example we've experienced involved a significant reduction in total ad spend.
2. Business as usual activity with the existing client mix will result in Advertised Emissions continuing to increase over time.
3. Reducing spend on carbon-intensive categories can have a disproportionate impact in reducing total UK Advertised Emissions.

What does the advertising industry need to do?

A steeper decline is now needed to achieve 50% reduction by 2030



Source: Magic Numbers calculation based on data from WARC, Exiobase, ARC, ONS, BEIS, Ricardo, Greenpeace, WWF and DVLA

Figure 10

Given the industry's inaction on Advertised Emissions, we see in figure 10, that the **'What's now required'** line is steeper than the **'What was required'** line drawn from 2019. **The industry needs to reduce its Advertised Emissions to play its full role in helping address our climate emergency.** In 2023, UK ad spend is forecast to rise by 3.9%¹⁸. If the industry accepts the growth and does nothing else, Advertised Emissions are predicted to rise to 216 million tonnes CO₂e, 23 million tonnes CO₂e (11%) more than our annual target of 193. Alarmingly, 216 million tonnes CO₂e is 42% above the 2023 target of 152 million tonnes CO₂e, if the industry had decreased its Advertised Emissions along the **'What was required'** line.

What action needs to happen in 2023 to bridge the gap?

For the industry to get back on track it needs to reduce its Advertised Emissions in 2023. There are 3 variables to the Advertised Emissions equation: Ad spend, ROI and Carbon Intensity. To reduce its Advertised Emissions an organisation must either:

1. Advertise less (reduce ad spend)
2. Make the advertising less effective (reduce ROI)
3. Change what is advertised (promote lower-carbon intensity products)
4. Or a combination of the above.

Clearly, reducing total ad spend is not an attractive proposition to business leaders if organisations are to remain profitable and continue to provide value to their shareholders. It also unfairly impacts advertisers in sectors whose Advertised Emissions are relatively small. Secondly, it is unlikely that any agency or the industry as a whole would suggest that it should become less effective. **The only remaining option to meaningfully reduce Advertised Emissions is to change what is advertised.**

¹⁸ https://ip.warc.com/rs/897-MBC-207/images/AA_WARC%20Q2%202022.pdf






Acting at an organisational level

The opportunity: Shifting client portfolio

Collectively, the industry must redirect its talents towards low carbon brands and services and actively avoid advertising high carbon items.

In the launch report we introduced the idea of the **Red Amber Green (RAG)** Framework:

The RAG framework offers a lens to consider the climate impact of existing and prospective clients by categorising them into three groups:

- 
Red High carbon brands and industries with little opportunity to re-engineer demand towards low carbon alternatives. **Suggested action: Reduce ad spend.**
- 
Amber Established brands and industries that can accelerate the adoption of lower-carbon attitudes and behaviours. **Suggested action: Transition the ad spend.**
- 
Green New and emerging brands and industries whose business model is geared to serving a 1.5 degree world. **Suggested action: Increase ad spend.**

Goal: Reduce Advertised Emissions by 50% by 2030

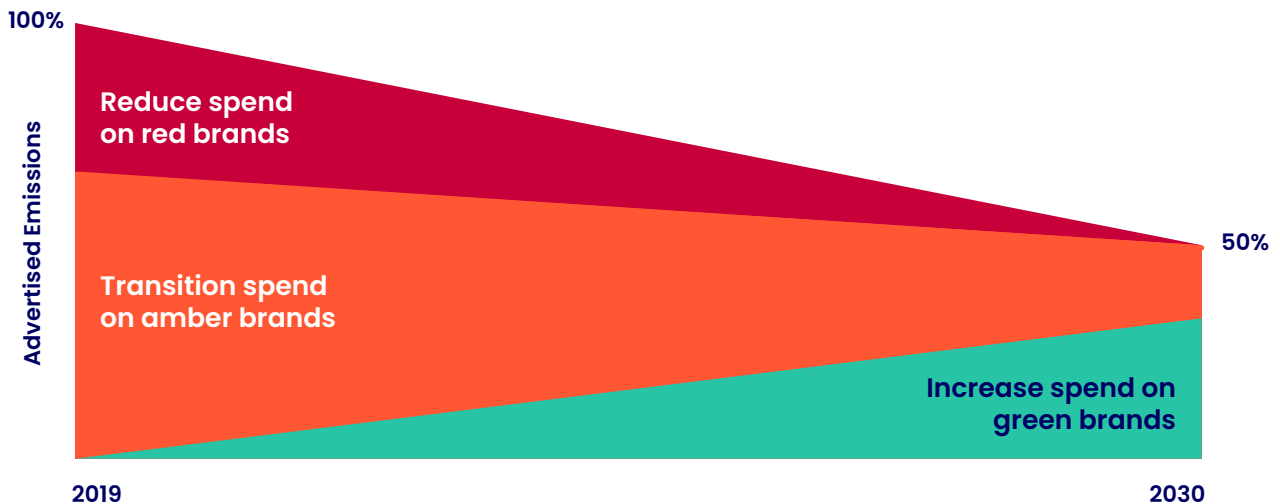


Figure 11. Red, Amber, Green framework, created by Purpose Disruptors, 2021

The Advertiser Carbon Index

Purpose Disruptors and the Advertised Emissions Working Group have evolved this RAG Framework into the **Advertiser Carbon Index** as a means to answer this recurring question: Given we are in a climate emergency, who should we be working with?

This uses a set of 9 topic areas and associated questions to assess advertisers against:

	Topic area	Suggested question
1	Are they a high or low carbon company?	What is the carbon intensity of the company, relative to the average?
2	Are they reporting their full impact?	To what extent does their reported carbon footprint cover all the consumption-related emissions that the company has influence over?
3	Do they have a plan?	Are they registered with the Science Based Targets Initiative and how are they delivering on the 5 step plan?
4	Is their business strategy aligned with net zero?	Is their business strategy currently aligned to achieve net zero?
5	Are they being hypocritical?	Is the company supporting action that runs counter to their climate plans?
6	Is their 'green' marketing representative?	Are they greenwashing?
7	Are the comms helping drive behaviour change?	Are their comms actively reducing consumption-related emissions in relation to their brand?
8	Are the comms helping drive behaviour change?	Are their comms actively reducing consumption-related emissions beyond their product / the thing they are selling?
9	Are they helping drive the bigger societal shift?	Is the company contributing to the bigger picture – a necessary reduction in consumption-related emissions by 2030?

Table 2

By responding to each of these questions using reliable, publicly available data and applying an agreed weighting for each question, it will allow a company to be given a score and ranked on the index.



The opportunity: Diversification

If an agency, network group or media platform can take a leadership position and apply the Advertiser Carbon Index to their existing or prospective clients. In doing this there is likely to be a short-fall in revenue that results from reduced revenue from Red Brands. To fill that gap, there is an opportunity to diversify.

The classic management tool, the Ansoff matrix¹⁹ is designed to map strategic market growth. The underlying question is **'How can a company achieve future growth in terms of revenue?'**. It outlines 4 strategic options: Market Penetration, Market Development, Product Development or Diversification. For organisations within the advertising industry, the opportunity is to create new products and services and diversify to capture revenue by enabling stakeholders to decrease carbon emissions:

Markets	Sell to new people	Products and services that drive consumption that lead to an increase in carbon emissions, to new clients and consumers Market Development	Products and services that lead to a decrease in carbon emissions, to new clients and consumers Diversification
	Sell to the same sort of people	Products and services that drive consumption that lead to an increase in carbon emissions, to existing clients and consumers Market Penetration	Products and services that lead to a decrease in carbon emissions, to existing clients and consumers Product Development
		Sell the same thing	Sell a new thing
		Existing Products and Services	New Products and Services

Figure 12

¹⁹ <https://www.ansoffmatrix.com/>

How to think about diversification

The industry has an amazing superpower – creativity. Can the agencies, network groups and media platforms apply their creativity to imagine and develop the new products, services and business models needed to diversify?

A stimulus comes from an unlikely source: Big Oil. Here is a transcript of Bernard Looney, CEO of BP speaking in September 2020²⁰:

“

(When I get asked) you’ve done oil and gas for 111 years, what skills do you have in this new world, really?

And the answer is ‘far more than you would think’.

If you want to do off-shore wind farms you need project management skills, and independent analysis benchmarks. BP has best-in-class in 4 out of 5 categories in project management.

Our people can as equally build off-shore wind farms as they can build an oil refinery.

We have someone working on a drilling site and we call them a ‘Well-side leader’. Their job is to manage a drilling operation. They are logistics managers, they coordinate people, they do contract management. What does the new strategy mean for us? One of our people said ‘I’m a well-side leader today, why can’t I be a solar-side leader tomorrow?’

We have scientists, we have engineers, we are truly global. If you want to solve a global problem, we are in 70 to 80 countries in the world. We have 6000 engineers and 2000 scientists.

”

²⁰ <https://www.outrageandoptimism.org/episodes/bps-rebuilding-trust-bernard-looney>

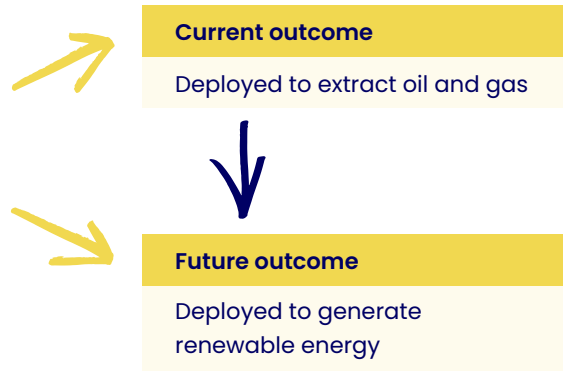


There are clear questions about the integrity of Bernard Looney’s words as BP continues to drill for oil and gas²¹, which will only make our climate emergency worse. However, he does articulate the degree of change needed for a company, like ones in the advertising industry, whose current outcome is unsustainable. The need to **decouple the skills from the outcome** and reapply those skills to an alternative outcome.

For BP



Transferable skills and capabilities
 Excellence in project management, logistics, science and innovation, engineering, global reach



For organisations in the advertising and marketing communications industry



For the advertising and marketing communications industry

Transferable skills and capabilities
 Probably: Creativity, insight, problem solving, strategic thinking, connecting people to ideas, making something desirable, global reach

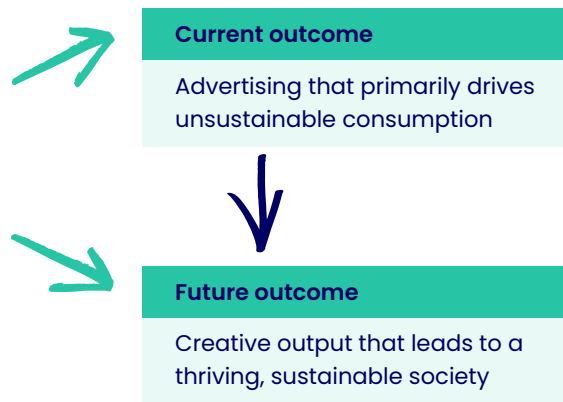


Figure 13

21 <https://priceofoil.org/2022/05/24/big-oil-reality-check-2022/>

Test and learn approach to diversification for organisations in the advertising and marketing communications industry

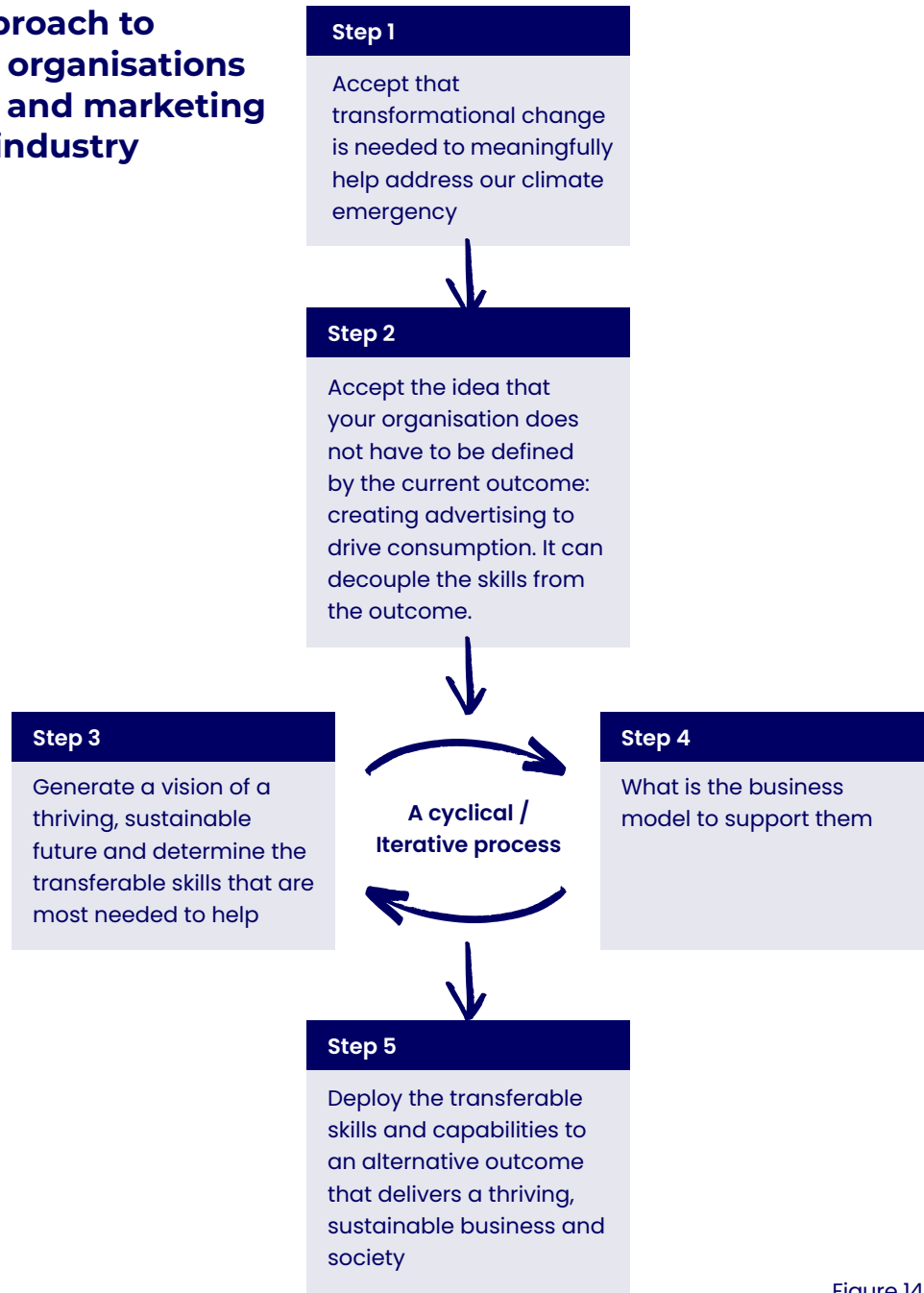


Figure 14

Acting at an industry level

Whilst agencies, network groups and agencies can act on their own by adopting Advertised Emissions and reviewing their client list against the Advertiser Carbon Index, will individual action be sufficient? Will it be fast enough?

As stated above, to get back on track, the industry needs to reduce its Advertised Emissions by 23 million tonnes CO₂e in 2023.

There are a number of reasons that suggest that acting at an industry level is necessary:

1. The UK government has a legal requirement to achieve a 78% reduction in carbon emissions by 2035²². To meet this target, in October 2022, the House of Lords stated that 32% of the emissions reduction needs to come from changes in consumer behaviour²³. Switching to EVs, not flying and diet change to reduce red meat consumption are the most impactful actions consumers can take. Specialist Advisor on the House of Lords report, Professor Lorraine Whitmarsh, MBE sees that reducing advertising for high-consumption categories can support this goal:

“

The House of Lords report makes clear that in order for the UK government to meet its emissions reduction targets by 2035, it urgently needs to help people cut carbon-intensive consumption. As the Advertised Emissions report shows, advertising influences consumer behaviour and drives consumption-related emissions. A sensible policy decision, and one which was supported by the Climate Assembly UK, is to regulate advertising that stimulates demand for carbon-intensive products and services like cars, flying and red meat.

”

Professor Lorraine Whitmarsh MBE
Director of the Centre for Climate Change & Social Transformations (CAST)

²² <https://www.gov.uk/government/news/uk-enshrines-new-target-in-law-to-slash-emissions-by-78-by-2035>

²³ <https://committees.parliament.uk/publications/30146/documents/174873/default/>

2. At the UK level, the decrease in consumption-related emissions is vast. Giving evidence²⁴ alongside the House of Lords report, Dr Viktoria Spaiser and Prof Cristina Leston-Bandeira of the University of Leeds quoted the influential report: *1.5-Degree Lifestyles: Towards A Fair Consumption Space for All*²⁵. **It states that the current, average UK household carbon footprint ('lifestyle emissions') needs to be reduced by 70% by 2030 and 92% by 2050. Such a dramatic reduction cannot happen without action at the industry-level.**
3. At the global level, the latest IPCC report (IPCC AR6)²⁶, launched in February 2022, stated it was 'code red for humanity' showing irrefutable evidence that greenhouse gas emissions from fossil fuel and deforestation are putting the planet and people at immediate risk. And, for the first time, recognised the importance of demand-side solutions to reduce and mitigate emissions. Demand-side approaches are solutions that are aimed at consumers to encourage adoption of climate friendly technologies, behaviours and low carbon lifestyles amongst other areas.

In particular, the report highlights the role of advertising and the entertainment industry in creating "novel narratives to help to break away from the established meanings, values and discourses and the status quo". (IPCC AR6 WGIII Chapter 5).

Based on the IPCC report, the United Nations Education Programme (UNEP) issued a policy briefing, *Enabling Sustainable Lifestyles in a Climate Emergency*²⁷ in May 2022. **It explicitly calls out the need to limit advertising for meat, driving and flying to enable the necessary reductions in consumption-related emissions:**

“Regulate advertising of carbon intensive transportation modes (e.g. driving, flying)”

“Regulate advertising on selected high-carbon foods such as meat, certain types of fish and dairy products”

24 <https://committees.parliament.uk/writtenevidence/41621/pdf/>

25 https://hotorcool.org/wp-content/uploads/2021/10/Hot_or_Cool_1_5_lifestyles_FULL_REPORT_AND_ANNEX_B.pdf

26 <https://www.ipcc.ch/assessment-report/ar6/>

27 <https://www.unep.org/resources/policy-and-strategy/enabling-sustainable-lifestyles-climate-emergency>

Given the scale of change, how should the industry respond?

The scale of the change needed requires us to understand the difference between 'green consumerism' and 'sustainable consumption'²⁸.

With 'Green consumerism', society can buy its way to being sustainable by purchasing the green alternative, or that every ad can be a green ad. 'Sustainable consumption' starts with the end in mind. What is the level of consumption that is sustainable in society for us to meet the Paris Agreement and limit global warming to well below 2°C, preferably to 1.5°C? In the UK, this is a 70% reduction in lifestyle-related emissions by 2030 and a 92% reduction by 2050. To ensure the industry delivers the change it can make, any strategy should be governed by the idea of 'sustainable consumption', along with a 2030 and 2050 science-based target. Based on this strategy, necessary actions can then be devised and delivered.

The opportunity for radical leadership

In October 2018, the IPCC²⁹ said:

“

Limiting global warming to 1.5°C would require rapid, far-reaching and unprecedented changes in all aspects of society. ”

Such a statement applies as much to the advertising and marketing communications industry as anyone else. What would 'rapid, far-reaching and unprecedented change' look like for the advertising and marketing communications industry?

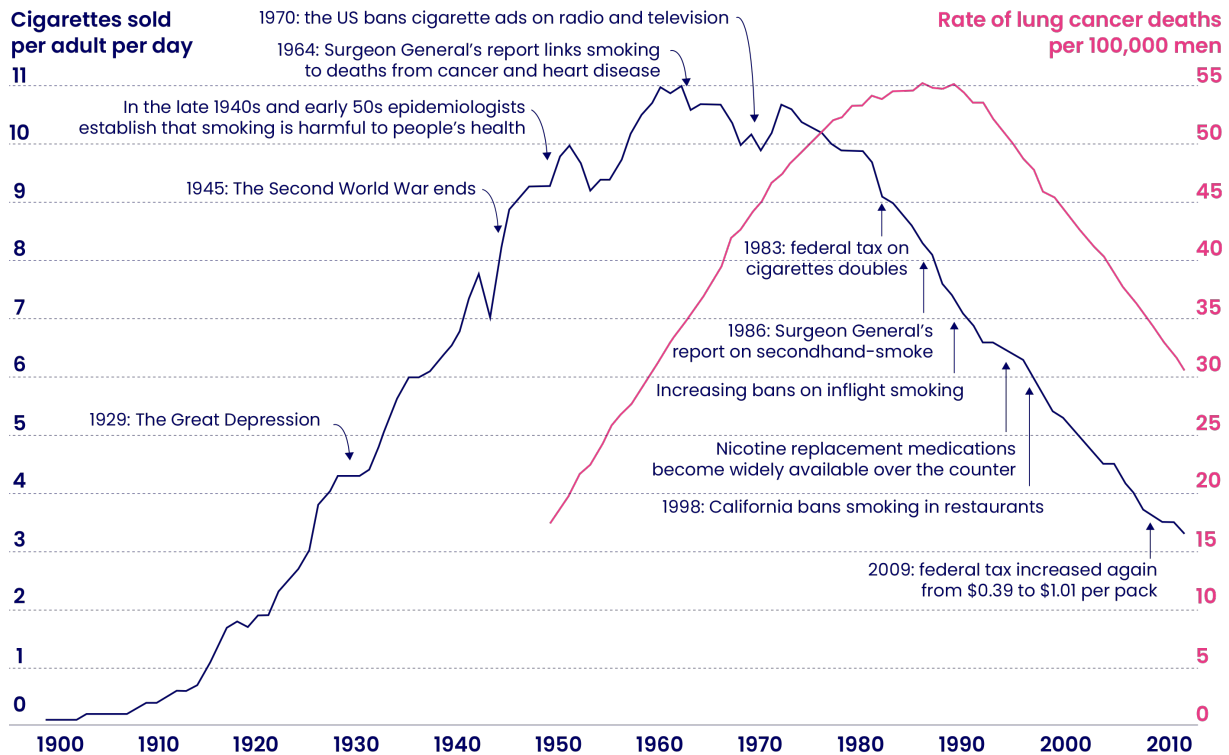
What if the industry came together and actively encouraged the government to ban advertising for carbon-intensive categories? Such a solution would neutralise the competitive urge where one company will take the work even if another turned it down. If the industry acted as one to solve this bigger-than-self problem, and ensured that all actors are good actors, the impact of this radical act of leadership would be rapid, far-reaching and unprecedented.

28 <https://www.sciencedirect.com/science/article/abs/pii/S0959652613003405?via%3Dihub>

29 <https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/>

Cigarette sales and lung cancer mortality in the US

Our World
in Data



Data sources: International Smoking Statistics (2017); WHO Cancer Mortality Database (IARC). The death rate from lung-cancer is age-standardized.
OurWorldinData.org – Research and data to make progress against the world's largest problems.

Figure 15

Such an action would be an extremely powerful signal from the advertising industry to those clients committed to net zero, as well as demonstrating climate leadership to the rest of the business world. "We are doing what we can, from where we stand, to make the most difference". It would be an unexpected act of responsibility that would come to symbolise the UK advertising industry's climate leadership on the global stage.

Such an action can make a difference

Figure 15 shows the dramatic effect of banning advertising for cigarettes³⁰ in the US on sales of cigarettes. Note the corresponding decline in lung cancer deaths. If there was a ban on categories of high-carbon products and services, we can predict that we would see a corresponding decline in carbon emissions.

Imagine the positive energy within the industry, increase in trust of advertising in society, and the ability to compete in the war on talent if the industry initiated such a positive shift based on its own desire to take responsibility for climate action?

30 <https://ourworldindata.org/smoking-big-problem-in-brief>



What might the industry be focussed on helping create?

Such a shift might open up a different door. Applying the principle of diversification, above, at an industry level, could begin the process of pivoting away from driving unsustainable consumption towards a different, more life-affirming outcome. Here are two suggestions:



1. A new version of the Good Life

In 2021, Purpose Disruptors conducted primary research with UK citizens as part of its Good Life 2030 project³¹. We found something startling. The experience of Covid offered people a window into the possibility of enjoying a different kind of 'Good Life'. In our modern society, a Good Life has largely been defined by post-WW2 America. It means having the car you want, the house you want, the holidays you want. Consuming stuff. During Covid, people experienced a profound shift in their lives that led many to re-evaluate what is important. When we asked them what really mattered to them in the future, they were clear that their 2030 dreams are ones where they are more connected to self, others and nature. What is important is connection, not consumption.

Opportunity

What if the industry shifted from promoting the current Good Life to a new Good Life?

³¹ <https://www.goodlife2030.earth/>



2. The concept of citizens

In his powerful book 'Citizens'³², ex-advertising strategist Jon Alexander asks the question "what would it look like to put the same energy and creativity that currently goes into selling to people as Consumers, into inviting them to make decisions as Citizens?" Such an approach would see agencies challenging their clients to articulate a higher purpose, and then involve people in that – whether that's sharing food experiences, learning craft skills, or contributing ideas for the future of their town or city – rather than simply selling them products and services. He says:

“Currently too much of the advertising industry’s output, even so-called **“goodvertising”, is essentially telling people that their only agency is what they buy. This simply isn’t true – people are doing so much in communities all over the country, and there is a huge opportunity for brands to come in behind that. Thinking in that way, breaking out of the prison of Consumer thinking, is key to a more constructive role for the industry.”**

Opportunity

What if the industry shifted from treating people as 'consumers' to inviting them to discover their agency as 'citizens'?

32 <https://www.canburypress.com/products/citizens-by-jon-alexander>

6 Recommendations

“Who we understand ourselves to be determines the choice we will make. That choice determines what will become of us.”

Christiana Figueres and Tom Rivett-Carnac
The Future we Choose: Surviving the Climate Crisis

Adopting Advertised Emissions offers two intertwined possibilities:

1. The opportunity for agencies, network groups, media owners and brands to take full responsibility for their climate action.
2. The opportunity for radical change and to shift perspective from only driving unsustainable consumption to using the industry's skills and talents towards more life-affirming outcomes.

You cannot have one without the other. In order to be truly committed to the latter you have to have accepted the responsibility of the former.

Advertised Emissions is about ‘the number’ and the need to reduce the number of tonnes of carbon we have influence over. It is also more than that. It is a call for us to decide who we want to be.

What do you want to be in service to, knowing we need to reduce our Advertised Emissions?

Someone who spends most of their time driving unsustainable consumption, or someone who wants to take the more difficult, rewarding path and help shape our industry so it creates a thriving, sustainable society?

Which side of history do you want to be on?

Purpose Disruptors and Magic Numbers can only put ideas into the industry with thought and care. It is up to people in the industry to decide what they want to do with them.

To answer that you have to decide who you want to be.

Recommendations:

Continued Development:

- ✓ For willing members of the ecosystem to continue to co-create a tool that all relevant organisations in the ecosystem can use to measure and reduce their Advertised Emissions. Purpose Disruptors are happy to continue to lead this process.
- ✓ For an independent scientific expert body (such as the Science-Based Targets Initiative) to produce common rules for accounting for Advertised Emissions and for setting science-aligned goals and targets for their reduction, to ensure credibility

Adoption by the industry:

- ✓ Champion and encourage the embedding of Advertised Emissions across the advertising ecosystem with the support of industry bodies such as the Advertising Association and IBSA)
- ✓ For agencies and media owners to apply the RAG framework to their current and prospective client portfolio
- ✓ For agencies, media owners and brands that are members of the Race to Zero to adopt Advertised Emissions

Inclusion in official reporting mechanisms:

- ✓ For Advertised Emissions to be integrated into:
 - An extended definition of Scope 3 within the Greenhouse Gas Protocol and Science-Based Targets Initiative
 - Advertiser and agency Scope 3 emissions reporting
 - Action 5 of the Advertising Association's Ad Net Zero initiative

Radical leadership:

- ✓ The industry to discuss and debate the radical leadership opportunity to actively encourage the government to ban advertising for carbon-intensive categories

Authors Acknowledgements

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Jonathan Wise is co-founder of Purpose Disruptors, a community-based organisation of advertising insiders working together to reshape the industry. Alongside Advertised Emissions, key projects are #ChangeTheBrief Alliance and GoodLife2030. Jonathan has 15 years experience as a strategist in leading advertising agencies, working on clients such as Nestle, Kraft Foods, Diageo, Shell and the BBC. He has won numerous awards including a Gold IPA Effectiveness Award. He holds a Masters in Sustainability and Responsibility from Ashridge Business School. He is tutor on the Cambridge Institute of Sustainable Leadership course 'Sustainable Marketing, Media and Creative'.

Ben Essen is Chief Strategy Officer at Iris, a global creative, strategy and innovation company working with brands including Adidas, Paypal and Samsung. Ben has won numerous strategic awards including the Admap prize for thinking on data and creativity. Ben has been a member of Purpose Disruptors since 2019 and, with Caroline Davison, created 'Ecoeffectiveness': a method for incorporating emissions data into the measurement of advertising performance, brought to life through IPA Effectiveness winning advertising and a precursor to Advertised Emissions.

Nadeen Ayyashi is Advertised Emissions Product Manager at Purpose Disruptors, where she leads the Product Strategy and Working Group to co-create the methodology for organisations to measure their Advertised Emissions. Prior to joining Purpose Disruptors Nadeen worked for over a decade in management consulting helping clients with their digital transformation before moving into the net zero strategy space. She holds an MBA from Oxford University Said Business School.

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About the report

The report was commissioned by Purpose Disruptors with the generous support from JJ Charitable Trust, the Climate Change Collaboration and the KR Foundation.

The estimates of Advertised Emissions in this analysis are produced using publicly available information and should not be seen as conclusive or final, nor do they cover the full range of activities. The figures presented in this report should be seen as indicative estimates only. The information in this report, or on which this report is based, has been obtained from sources that the authors believe to be reliable and accurate. The statements in this report are those of Purpose Disruptors only.

Report design by Winnie Lee: www.winnielee.net

This report is dedicated to those who came before us – those that have enabled Financed Emissions to be acknowledged and adopted by the finance industry. And those we hope will come after us – the Big 4 accountancy firms, management consultants and law firms who have the opportunity to acknowledge and adopt the nascent idea of Advisory Emissions.

Contact:

For enquiries, please contact Jonathan Wise at jonathan@purposedisruptors.org

FAQ

Q: What about double counting? If my client is already counting the carbon emissions associated with the sales for the brands we promote, then why do I have to as well, as their agency?

A: Within the carbon accounting world, this is standard practice. For example, when you report the carbon emissions of the electricity supply to your office and seek to reduce them, those emissions are also being counted by the energy companies you buy from, and they are also reducing them as part of their net zero plans. You are both trying to reduce the same emissions. By everyone attempting to reduce their emissions, even when there is overlap, it enables all of us to push towards reaching, and achieving, net zero faster. And equally, when a client manages to achieve emissions reductions in their supply chain your agency will be able to account for those reductions in your Advertised Emissions too.

Q: My advertising is designed to get people to choose my brand who would otherwise have chosen a competitor's. So if advertising is driving an uplift for my brand, won't it be counterbalanced out by a decrease for a competitor?

A: Sometimes yes, sometimes no, it depends on your brand's competitive environment. In practice, and without in depth and up to date research to hand, you are unlikely to know whether your Advertised Emissions will be offset elsewhere, and you can't assume the best. Pushing towards net zero requires everyone to take responsibility for every carbon emission that they can control or influence either directly or indirectly, regardless of what happens elsewhere.

Q: I am already signed up to Ad Net Zero and committed to measuring and reducing the carbon footprint of my advertising's production through AdGreen. I'm already managing my carbon footprint. Why do I need to think about this too?

A: Ad Net Zero, AdGreen and the Media Carbon Calculator are vitally important first steps in the advertising industry taking responsibility for measuring and reducing its carbon footprint. But none of these take into consideration the consequence of the advertising put into the world – the reason the advertising industry exists in the economy. There is a huge carbon footprint associated with the uplift in sales that advertising creates for which the industry needs to take responsibility. By choosing to measure and reduce our Advertised Emissions it allows us to do this, and through this, enables us to use our creativity to shift society towards a more sustainable future.

Q: We are already taking brand purpose seriously, isn't that enough?

A: Brand purpose can enable brands to make positive strides in helping address a variety of social and environmental issues. But doing good of this kind doesn't reduce the need to do less harm elsewhere. Reducing the amount of carbon emitted is not an optional cause but a necessary responsibility of every organisation. The majority of promotional 'purpose' advertising does not consider the carbon footprint that results from the increase in sales generated - something that can be directly addressed through the choices the advertising industry makes. Advertised Emissions does not replace brand purpose, but can complement it.

Q: I won't be able to access the data on my Advertised Emissions, so how can I calculate my full footprint?

A: Purpose Disruptors are committed to developing the concept of Advertised Emissions. In writing this report, with the econometrics agency Magic Numbers, we used category averages alongside a data bank of case studies to calculate the Advertised Emissions for the UK. We will be developing a tool for agencies and agencies to calculate their own Advertised Emissions. For those who are able, they can insert their own data, for those where that is not available, we will be using the same, or refined, publicly available data. This will enable anyone to be able to calculate their Advertised Emissions.

Q: Why are total UK Advertised Emissions such a large percentage of the UK's total emissions? Is this number credible?

A: The reason why this is so large is because Advertised Emissions encompass consumption emissions and many of the things we consume are made outside of the UK and therefore are not included within the UK's territorial emissions. So Advertising Emissions draws from a bigger pool (global emissions) than only UK emissions.

Q: If my advertising is just promoting my brand, not selling a product, does it have emissions associated with it? What if it is promoting a more sustainable product or message?

A: The econometrics used in the research captures average uplift in revenue from the sales of goods driven by advertising by sector. It is therefore not the message that is being measured, but the real-world outcome of running the advertising. Brand advertising and sponsorship will drive additional demand for products and the carbon emissions they produce. And advertising a 'hero' low-carbon product is likely to also drive sales of high-carbon products from the same brand. The total uplift driven by the advertising is what is being measured.

Q: If my advertising sells low-carbon products instead of high-carbon products then will my Advertised Emissions go down?

A: Yes, but over time. All goods and services sold, even low-carbon ones, have a carbon footprint through their creation, distribution, use and disposal. The total uplift in emissions created by the sale of these is included in Advertised Emissions. So every incremental product sold (even if it's low carbon) will have a net positive impact and cause Advertised Emissions to go up. However the method can be used to measure progress over time. So if a brand or sector starts selling low-carbon products instead of high carbon products, this will be reflected over time in a reduction in absolute Advertised Emissions. To align with Science Based Targets this reduction needs to be at least 50% by 2030.

Appendix

Research Methods

1. The effect of advertising on economic activity in the UK

Expenditure on advertising in the UK is published by the World Advertising Research Centre (WARC) which reports annually on 19 advertising categories (food, financial services, travel and tourism etc.) and 7 media channels (TV, radio, newspapers etc)³³.

To estimate how much demand this advertising creates for advertisers' businesses we applied a category average return on investment (ROI) – revenue driven per £1 spent on advertising – from the Advertising Research Community Database (ARC).

ARC collects together results of econometric models that each evaluate 3 years of experience for an individual advertiser. It covers UK businesses over the period 2016 to 2020 that did not win an award.

Econometrics is accepted as one of the best methods for evaluating advertising because, although it isn't perfect, it is the only method that is capable of controlling for other things. This is important because advertising often airs at the same time as price changes, or when seasonal demand is at a peak.

While ARC is not a huge database – it contains c.400 cases – it is the biggest of its kind, and the only one that contains findings from a range of different research teams.

Each row is the culmination of an expensive 3-6 month long project carried out in collaboration with the advertisers concerned by expert econometricians at magic numbers, Omnicom Media Group, Data2Decisions, IRI, and VCCP media.

We triangulated our estimate of the amount of economic activity driven by advertising versus a study carried out by the Advertising Association and Deloitte³⁴. They found that for 2011 £1 of advertising spend contributed c.£6 to the UK economy, our estimates between 2013 and 2019 ranged from £5.50 to £6.30.

2. Emissions in advertisers' own production and through their supply chains

The UK Office for National Statistics (ONS) publishes emissions intensities of greenhouse gases³⁵ by industry in the UK. These are given in thousand tonnes of CO₂ equivalents per £1m of economic activity.

CO₂ equivalents is the main metric used in greenhouse gas reporting because it enables different emissions that contribute to warming to be reported together.³⁶

We applied these emissions intensities to our estimates of economic activity driven by advertising to provide an estimate for emissions from advertisers' own production.

For emissions through the supply chain, we carried out multi-regional input-output modelling. For this we used EXIOBASE³⁷, a database that captures trade flows between industries around the world.

Input-output modelling is useful because it traces back, from the UK industries that benefit from the effects of advertising, to their suppliers, and then their suppliers. This includes industries in the UK, Europe and rest of the world.

EXIOBASE also includes emissions per unit of revenue for industries around the world. This enables calculation of cradle to gate emissions in the same units as our earlier estimate of advertisers' own production.

While environmentally extended input-output analysis is well-accepted and used extensively in the carbon accounting literature (Hertwich and Wood, 2018³⁸; Cederberg, 2019³⁹; and Greenpeace and WWF, 2021⁴⁰), it does have significant limitations (Kitzes, 2013)⁴¹. These apply to our estimate along with others that use this method.

3. Use phase

So far there is no industry level database available to size emissions in the use phase of products that were produced and sold because of advertising.

Individual firms have carried out analysis of their processes and produced lifecycle analysis estimates (LCAs) for individual products like a shirt, or bleach⁴², but unfortunately, there is presently no equally detailed database of advertising spend with which to match these figures.

Rather than exclude the use phase altogether, in order to illustrate the methodology to be applied across sectors, we identified one sector – Automotive – where a loose estimate for 2019 could be produced today.

To do this, we collected data on the ratio of use phase emissions to production emissions for vehicles sold in the UK. This included recent studies by Ricardo and the Low Carbon Vehicle Partnership⁴³, Greenpeace⁴⁴, WWF⁴⁵, and national estimates from the Department for Transport⁴⁶.

There was a good degree of agreement in these estimates, with emissions in the use phase typically around 4 times bigger than cradle-to-gate production emissions. We took the average of different estimates and applied it to our figure for emissions in the production phase to create our estimate of emissions in the use phase.

33 <https://www.warc.com/data/adspend>

34 <https://eaca.eu/wp-content/uploads/2017/11/advertising-pays-how-advertising-fuels-the-uk-economy.pdf>

35 <https://www.ons.gov.uk/economy/environmentalaccounts/datasets/ukenvironmentalaccountsatmosphericemissionsgreenhousegasemissionsintensitybyeconomicsectorunitedkingdom>

36 <https://climatechangeconnection.org/emissions/co2-equivalents/>

37 <https://www.exiobase.eu/index.php>

38 <https://iopscience.iop.org/article/10.1088/1748-9326/aae19a>

39 <https://www.sciencedirect.com/science/article/pii/S0959652618340447>

40 https://www.wwf.org.uk/sites/default/files/2021-05/uk_financed_emissions_v11.pdf

41 <https://www.mdpi.com/2079-9276/2/4/489>

42 <https://hmggroup.com/sustainability/sustainability-reporting/>

43 <https://cdn.ricardo.com/ricardo/media/media/news%20assets/lowcvp%20study%20demonstrates%20importance%20of%20whole%20life%20co2%20emissions.pdf>

44 https://www.greenpeace.de/sites/www.greenpeace.de/files/publications/gp_cleanairnow_carindustryreport_full_v5_0919_72ppi_0.pdf

45 https://www.wwf.org.uk/sites/default/files/2020-04/FINAL-WWF-UK_Carbon_Footprint_Analysis_Report_March_2020%20%28003%29.pdf

46 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/882196/vehicle-licensing-statistics-2019.pdf



About Purpose Disruptors

Purpose Disruptors are a community based organisation of advertising insiders working together to reshape the industry. Our vision is to help the industry transition so that it only creates work that is in line with a 1.5 degree world, and only promotes attitudes, values, behaviours and lifestyles aligned with halving emissions by 2030.

Purpose Disruptors were co-founded in 2019 by Lisa Merrick-Lawless, Rob McFaul and Jonathan Wise. The group hosted the UK industry's first Climate Crisis Summit, encouraged 160 CEOs to enable their staff to join the Global Climate Strike with Create&Strike and engaged 700 of the Purpose Disruptor community in The Great Reset, a campaign to maintain the positive environmental behaviours we experienced during lockdown. They were named in Campaign Magazine's list of Top Trailblazers of the Year for 2020 and won a Purpose Award for Collaboration: Best Environmental Cause Campaign in 2021 Alongside Advertised Emissions, key projects are ChangeTheBrief Alliance and GoodLife2030.

www.purposedisruptors.org



About Magic Numbers

Magic Numbers is a company full of data people with people skills, specialised in evaluating marketing and working with marketing people to put numbers to good use.

They help clients understand how their research and data fits together, identify the numbers that will make the biggest impact, and convert data into stories about growth and how to make it happen.

They are recognised for their expertise on advertising effectiveness. Including regularly judging awards entries, and publishing research in WARC, marketing week, and with the IPA.

www.magicnumbers.co.uk

