

BUILDING FOR SUSTAINABILITY

Why and how to build greener digital solutions



Why is this important?

The Internet has a larger footprint than the airline industry

Measuring the carbon footprint of the Internet

Landing back on the moon is potentially the easier task

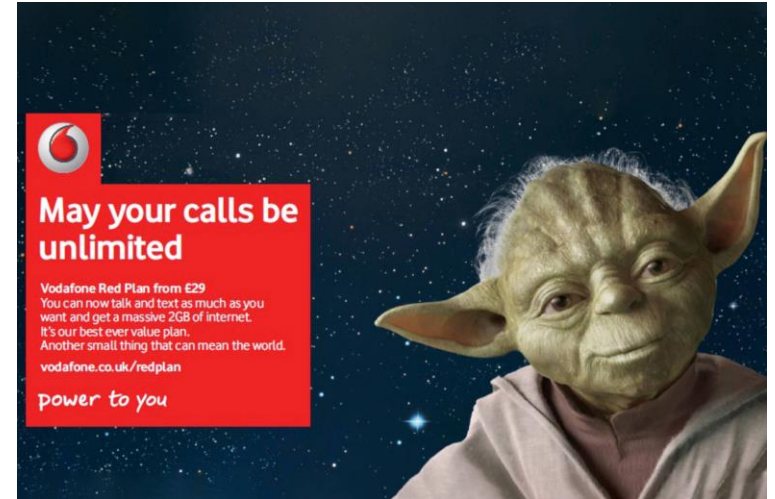


HOW WEBSITECARBON.COM WORKS

- Looks at the amount of data transferred over the wire
- Assumes energy intensity of **1.8kWh / GB**
- Reduces by 10% if the data centre is on green energy (Green Web Foundation database)
- Converts to CO₂e using **475g CO₂e per kWh** (international average)
- This is similar to the US (455g) but much higher than the UK (233g)
- See <https://www.websitecarbon.com/how-does-it-work/> for more details

WHY WOULD A CLIENT BOTHER?

- vodafone.co.uk creates around 3,500 tonnes of CO₂e each year
- That's the equivalent of around 10.4 million airmiles and would require around 50,000 trees to offset the impact
- It's only 0.025% of Vodafone's 13.74 million tonnes of Scope 1, 2 and 3
- So what's the point?!



THE WIN / WIN OF WEBSITE CARBON REDUCTION

- Simplifying a user journey will usually improve conversions
- Making pages load faster will always improve conversions
- Halving the steps in a user journey will half the carbon footprint
- Halving the page weight will half the carbon footprint again.
- Customers like to know the impact of what they are doing (e.g. Oat Milk!)
- Together we can all do our bit to tackle a footprint larger than the airline industry

[Shop Women](#)

[Shop Men](#)

organicbasics

[Regular store](#)

[Manifesto](#)

EUR



This page is using **~1756kb** of data
(**2.94x** smaller than the regular **collection page**)



You've saved **~39.18g** of CO₂ so far this session
(compared to browsing our regular website)



Illustration: @fra.ge_art

[Shop women](#)

[Shop men](#)

Need help?

hello@organicbasics.com(~4g of CO₂)

WHERE TO START



Beacon Web Page Measurement

Calculate the impact of a single unique visit to a web page and have a breakdown of the requests and guidance on lowering its impact.

Visit

Measurement

Website Carbon

Carbon calculator that allows users to assess the carbon footprint of any website. APIs are available and the open-source code is used across a number of other tools listed on The Green Pages.

Visit

Measurement

Why measurement is so hard

A great explanation of the difficulties in settling on a single magic number to help estimate the emissions from a digital product.

Visit

Measurement

Eco Grader

A tool to measure how green your website is

Visit

Measurement

Cabin Analytics

Privacy-first, carbon-aware web analytics. No cookies, no consent banners, no ad networks. Uses the Website Carbon open-source code to provide the page emission data.

Visit

Measurement

Plausible Analytics

Plausible is a lightweight (lower carbon!) and open-source website analytics tool. No cookies and fully compliant with GDPR, CCPA and PECR.

Visit

Measurement

All

Awareness & Education

Tech & Development

Design

Measurement

Content Production

Advertising

Greener Design Resources

Includes various design principles, tips for communities, designers, agencies, blogs as well as lots of other resources, toolkits, templates and how to's.

Visit

Design

Sustainable Interaction Design Principles

An overview of how the Branch platform was designed sustainably.

Visit

Design

Principles for designing sustainable services

Eight service design principles to design and implement services with an understanding of the impact they have on our planet.

Visit

Design

The impact of colours

A video explaining the power requirements needed to make different colours on an LED screen.

Visit

Design

Green Design

A set of guidelines and best practices for a low-tech, energy efficient, and environmentally sustainable internet.

Visit

Design

All

Awareness & Education

Tech & Development

Design

Measurement

Content Production

Advertising

Shopify Carbon Offsetting Integration

CarbonCroc is an e-commerce integration that helps you measure and offset the environmental impact of every sale you make.

Visit

Tech & Development

The sustainable.dev

Resources that enable you to craft greener, more sustainable websites.

Visit

Tech & Development

General best practices

A great article that lists 17 ways to make your website more energy efficient. N.B. these are actually across UX and Design as well as for developers.

Visit

Tech & Development

Green Hosting Directory

Check to see if your website is using green hosting. Or use their directory to find a green hosting company.

Visit

Tech & Development

Tips from a solar powered website

Some amazing tips on building a low carbon platform. It's solar powered so it can go offline in bad weather!

Visit

Tech & Development

AWS Cloud Credit for Sustainability

Cloud credit application form for sustainability projects built on AWS.

Visit

Tech & Development



Why is the footprint very different to the airline industry?

A very different profile with very different benefits

THE 3 LAYERS

1. Can we reduce the digital footprint of our platform?
2. Does the use of the platform have emission benefits? Can we measure it? Can we think about that when we do our customer experience mapping? Can we tell the customer?
3. Can we change the experience based on grid emissions?



THANK YOU
