



We build software, *sustainably.*

We are a small, friendly team that helps organisations build technology sustainably. We deliver secure, performant software with pride and care, on time, on budget – but with a difference. Our design, development and hosting choices make software better for the environment by reducing hardware use, energy consumption and carbon emissions.

We specialise in working with startups and scaleups because we understand the challenges that early phase and evolving projects face. We bring your ideas to market quickly and help set up your project to be energy-efficient from conception.

From simple apps and websites to complex backend infrastructure, architecture and data pipelines: As full stack experts focused on sustainability, we have you covered.





Why?

Digital technologies are a substantial source of greenhouse gas emissions, emitting more CO₂ than aviation, shipping and rail combined [1] [2]. Although hardware causes these emissions, software drives the demand. And this is growing [3] with the acceleration of energy-intensive areas of innovation, like AI. To support the growth of technology sustainably – change is needed.

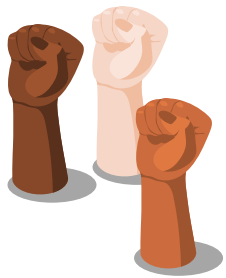
How?

We use measurement tools to develop software optimised for energy consumption and carbon emissions. We work solely with clients who share our sentiments and want to take responsibility for understanding and reducing their technology's impact on the planet.

Why choose us?

We build the product you want – with a conscience. We pride ourselves on delivering superb software with a memorable customer experience like many other great software teams. The additional benefit is that we are recognised experts in how to do this in a way that reduces the impact on the environment. That's our clear and simple proposition: We build software – sustainably.

If you are an organisation that shares our drive for responsible technology, you might be interested in how we are helping drive digital sustainability as part of our broader mission to **change software for good.**



Community

We run Green Software Brighton, dedicated to understanding how to decarbonise ICT through software.



Open Source

We are the creators of Cardamon, an OSS emissions measurement tool.



Awards

We are recognised Champions of the Green Software Foundation for our contributions to the community.



Education

We have worked closely with Universities shaping curriculum, delivering lectures, community talks and workshops.



Contribution

We are proud members of “1% for the Planet” and contribute at least 1% of our annual revenue to environmental causes.

CASE STUDY

Low Carbon Website

London Museums of Health & Medicine (LMOHM)

LMOHM is a one stop shop for medical history in London. It is a network of over 20 museums which promotes its members by providing public information via its website.

Challenge

The website was developed in Wordpress back in 2016 and had received minimal updates since then. The user experience was heavy and sluggish, after 8 years it was time for a refresh.

Solution

The problem was architectural. The site's content was mostly static (it rarely changed) but Wordpress constructs pages dynamically (upon each request). We employed a technique known as static site generation which better suits the content update schedule. Now the website rebuilds only once, when the content changes.

Impact

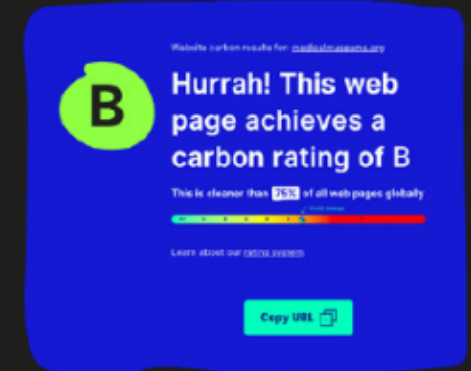
The new website produces an estimated 0.07g of CO2 per visit, down from 1.47g. That's a 95% reduction! Not only is the site better for the planet, it's better for visitors too. The entire site is now cacheable allowing the website to work offline and it now loads significantly faster.

OLD WEBSITE



Oh my, **1.47g of CO2** is produced every time someone visits this web page.

NEW WEBSITE



Only **0.23g of CO2** is produced every time someone visits this web page.

Source: www.websitcarbon.com



CASE STUDY

Lean E-Commerce Site

Duet3D

Duet3D designs hardware, firmware and software for 3D printers, CNC machines and a lot more.

Challenge

Before creating their e-commerce website Duet3D's sales had been an offline process. Duet3D wanted to create a new website to manage and sell their products both to resellers and the general public, whilst keeping the site functional, lightweight and a pleasure to use.

Solution

E-commerce websites are usually large, complex and slow to respond, but they don't have to be this way. By taking advantage of "island architecture" we were able to compartmentalize each page on the site to maximise the amount of content which could be pre-rendered on the server.

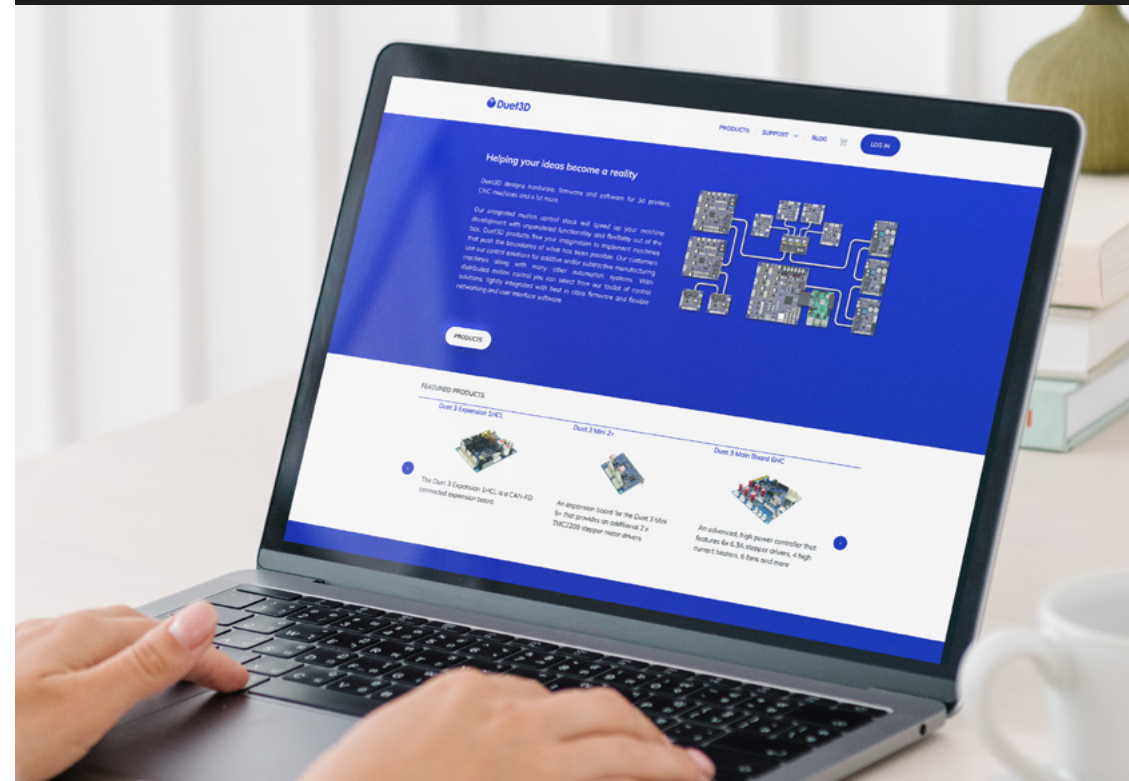
Impact

Duet3D now has a fully fledged e-commerce website with all the features one would expect from an e-commerce site but with some key improvements. Duet3d.com renders exceptionally fast, is cheap to run, requires few backend resources making it great to use, and has a lower environmental impact.



Only **0.34g of CO2** is produced every time someone visits this web page.

Source: www.websitcarbon.com



Get in touch.



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[1] "The real climate and transformative impact of ICT: A critique of estimates, trends, and regulations" (Freitag *et al*, 2021) <https://doi.org/10.1016/j.patter.2021.100340>

[2] "Sector by sector: where do global greenhouse gas emissions come from?" (Ritchie, 2020) <https://ourworldindata.org/ghg-emissions-by-sector>

[3] "IES: Data Centres and Data Transmission Networks" (2023) <https://www.iea.org/energy-system/buildings/data-centres-and-data-transmission-networks>