# Guide to sustainable communications

OXygen

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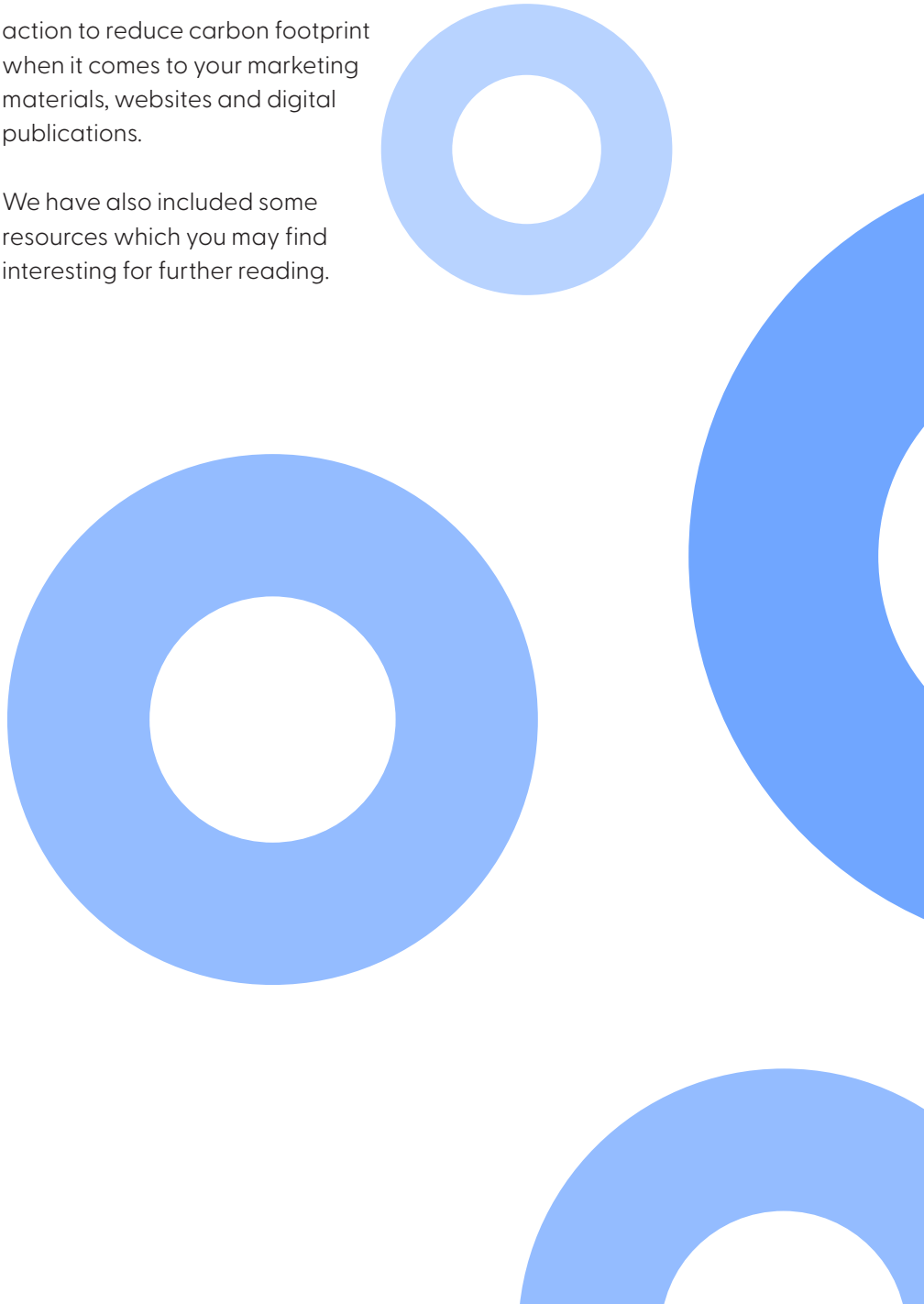
# Introduction

This guide has been created by the OXygen team to support organisations and individuals towards being more sustainable in their communications across different platforms.

You will find practical advice on how to embed sustainability throughout all stages of the communication and design process, from planning and strategy to implementation and delivery.

This isn't a guide about communicating your sustainability to the wider world, it's about taking action to reduce carbon footprint when it comes to your marketing materials, websites and digital publications.

We have also included some resources which you may find interesting for further reading.



# What is sustainable communication?

Sustainable communication is a commitment to producing creative materials whilst being conscious of the resources and materials required to produce and present them.

This is becoming increasingly important in the midst of the climate emergency we are facing. It's estimated that the carbon footprint of our technology and the internet account for 3.7% of global greenhouse gas emissions, with this expected to double by 2025 . At OXygen, we recognise the unqiue position of the design and communications industry in using our tools to innovate and drive meaningful change in the world.

### Sustainable communication:

- Is a means of sharing information that uses resources as efficiently as possible
- Considers the impact of communication materials at all stages
- Is a constantly evolving process

This guide has been divided into two sections; on-screen and off-screen.

# Where can sustainable communications have an impact?

- Printed materials
- Digital publications
- Websites

# Off-screen

There is becoming less and less need to print physical copies in today's world, however, there are always occasions where printing is necessary. Fortunately, there are some steps we can take to reduce the negative impact of our printed materials on the planet.

## Does it need printing?

The first and most obvious question. Is there an absolute need to print this content? Is there a digital alternative that could achieve the same result?

## Can I print it smaller?

If a document does need to be printed, explore whether its size can be reduced. Can the content be cut down from A4 to A5, or can the number of pages be reduced?

For longer publications, consider printing business cards or flyers with QR codes for your audience to download a digital version of the document.

## Increasing product lifetime

If you are preparing assets for a specific event, explore how you can use them beyond their primary use. Avoiding dates or specific references to events helps keep the document timeless so they can be reused in the future.

## Reduce wastage

Good use of white space helps to reduce ink usage, as well as the time and energy used in the printing process. Using graphics or images that don't bleed past the crop lines of a design also reduces ink wastage.

Make sure you don't overestimate the number of copies that you'll need to avoid having to dispose of any extras.

## Choosing a printing partner

Select a printing partner that uses recycled paper, either fully or partially, or non-pulp paper alternatives. You can also look for companies using Forest Stewardship Council (FSC) certified paper. It can be beneficial to use plant-based inks, that have either no or low Volatile Organic Compounds (VOCs) compared to their petroleum alternatives. Using a printing partner that is local can also help to reduce emissions associated with shipping of your order.

## End of use planning

Once your material reaches the end of its life, ensure it can be recycled as easily as possible.

Certain coatings and foils mean designs can't be recycled, so be sure to check with the printer when choosing a finish.

# On-screen

The majority of the content we consume is digital. From social media to websites and digital publications, incorporating sustainability principles into your content planning and design processes can help you to reduce your carbon footprint.

## Websites

The internet consumes a significant amount of electricity. From running data servers, to internet providers and powering our devices, it's estimated that the internet emits the same amount of Greenhouse Gas as the airline industry. A great resource with examples of websites with low footprints is the Lowww Carbon Showcase, while tools like Ecograder, Website Carbon Calculator and Beacon can help you measure a webpage's environmental impact and provide tips to improve it.

### Reducing page size

The average 'page weight', or total size of a webpage, is over 2.3MB in size, an increase of almost 225% over the last 10 years, while the average mobile page size has increased by almost 600% over the same period . Page weight is made up of all of the content that makes up a webpage including:

- The HTML code that builds up the framework for the page
- CSS code that defines the styling for the page
- Javascript code that provides interactivity
- Images, video and any embedded content.

Assigning a page weight budget at the start of a project can help to set goals and objectives to aim for.

### Images and Video

Images tend to be the most resource intensive and largest items on any webpage. When designing a webpage, it's important to consider the following:

- Does the image add value? Does it help to reinforce the message delivered by the content?
- Has the image been downsized and compressed?
- Can the image be hidden on mobile devices to improve loading times?
- Would a vector graphic, which is much smaller in size, help to achieve the same effect?

98.2% of web users use screens with a display width of 1920 pixels or less. Any images that are used therefore shouldn't need to be any greater than this in size. Anything larger could increase your website's footprint (and also increase your loading times!)

The file format used can also make a difference. Typically, pixel based images on a website will be one of JPG, PNG, TIFF, AVIF or WebP. Modern formats such as WebP and AVIF offer much better compression than older formats like JPG and PNG, and therefore smaller file size and page weight.

### Fonts

Font files are relatively small individually, but using a whole family of a typeface quickly adds up. Sticking to two or three different fonts provides a good balance. Even better, consider using system/ web-safe fonts, ones that come pre-installed on the majority of users devices, so they don't have to load them at all. These include Arial, Verdana and Georgia.

### Optimising code

Clean, optimised code helps to ensure only necessary content is loaded by the user. If you are writing code from scratch, working as efficiently as possible can have a big impact, while if you are using off-the-shelf website builders, there are a number of optimisation options that help to minimise code to only load what's needed on each page.

# On-screen

## Better hosting solutions

### Green hosting

Energy intensive data servers are the biggest contributor to the carbon footprint of a website. Ensuring your website is hosted with a company powered exclusively by renewable energy is the best way to mitigate this impact.

Companies such as GreenGeeks and Siteground offer hosting powered exclusively by renewables.

### Faster hosting

A faster hosting provider allows pages to load more quickly, using less resources both from the data center and the end user's device.

### Efficient caching

When someone visits your website, their system can store, or 'cache' parts of your content. This means that if they visit again, they don't need to redownload the entirety of your webpage.

While typically managed within your website hosting setup, a number of plugins such as WPRocket and LiteSpeed Cache are available to setup caching on a page by page basis.

### Content delivery networks (CDNs)

When you visit a website, you are accessing data from the website provider's server. Typically, this server is located in one place, often near to the organisation whose website you are visiting. The further the data has to travel, the longer it takes and the more energy it consumes.

CDNs create a network of data servers spread across the globe, so that when someone visits your site, they will connect to the data server nearest to them, decreasing the time it takes to load and your site and therefore the total energy usage.

Providers such as Cloudflare and Amazon Web Services offer CDNs.

## Improved user experience

Good UX design is inherently more sustainable than bad UX. By improving the user experience and journey, you can make it easier for people to find the information they need, reducing the number of clicks and therefore pages that need to be loaded, at the same time as lowering your footprint.

# On-screen

## Digital publications

### Using darker backgrounds

White or lighter screens require more energy than darker colours. Unlike with printed publications, using less white space can help reduce the impact of digital resources.

### File compression

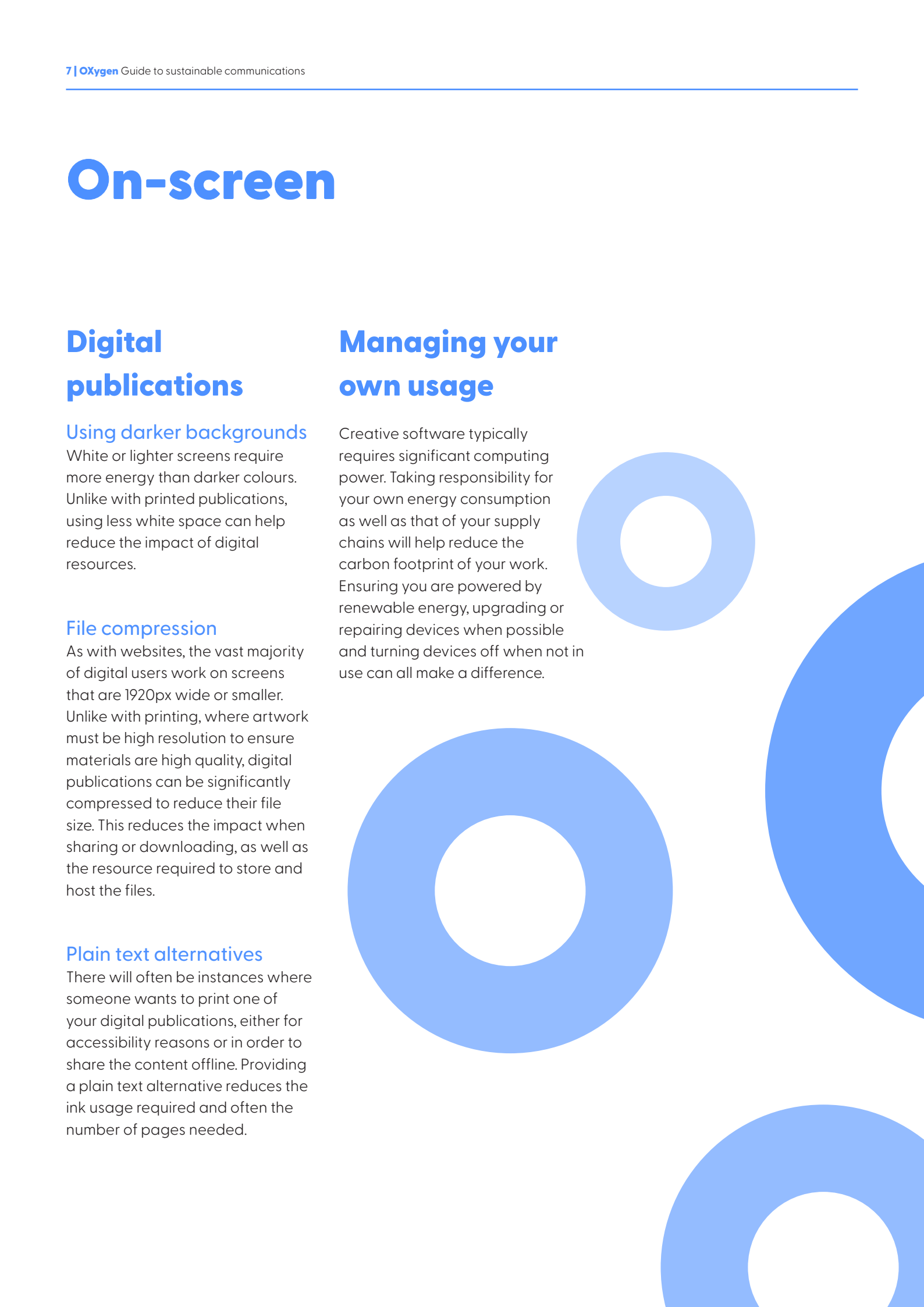
As with websites, the vast majority of digital users work on screens that are 1920px wide or smaller. Unlike with printing, where artwork must be high resolution to ensure materials are high quality, digital publications can be significantly compressed to reduce their file size. This reduces the impact when sharing or downloading, as well as the resource required to store and host the files.

### Plain text alternatives

There will often be instances where someone wants to print one of your digital publications, either for accessibility reasons or in order to share the content offline. Providing a plain text alternative reduces the ink usage required and often the number of pages needed.

## Managing your own usage

Creative software typically requires significant computing power. Taking responsibility for your own energy consumption as well as that of your supply chains will help reduce the carbon footprint of your work. Ensuring you are powered by renewable energy, upgrading or repairing devices when possible and turning devices off when not in use can all make a difference.



# Resources

- Sustainable Web Design Guide
- The Green Web Foundation
- Image Compression Tool
- Digital Beacon
- Website Carbon Calculator
- Ecograder Carbon Calculator
- Renourish – Sustainable Design Strategies
- Creatives for Climate Hub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