

YOUR GUIDE TO  
**GREEN IT**



BY



**DIAL  
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# Green IT can be easy

IT can have a lot of negative impact on the environment if no thought is given to it. But if you stop and think... it's not all that bad.

There are many ways to improve your IT systems' impact on our planet. Most of them are quite simple (and cost-effective).

The biggest issues with technology are its energy use and the waste it creates. This means both your home/office equipment and the equipment used to maintain the cloud that stores all your data.

However, it could be through technology, that you improve your environmental impact (green tech as well as ideas such as green office can be really helpful!).

Read this quick guide to find out more.



# #1

## E-Waste



E Waste (or electronic waste) is the general term for waste created by electronic devices, whether this is during production or at the end of the products life. This covers everything from Smart Speakers, laptop chargers and mobile phones up to cookers, fridges, and dishwashers.

We are going to focus primarily on the waste created by IT devices, but a lot of the principals remain true for E Waste as a whole.

## Why is it a problem?

E waste is already one of the largest waste streams generating 50 million tonnes of waste per year. This is set to double to 110 million by 2050.

With IT constantly advancing in line with Moore's Law (the idea that technology doubles in capacity over 2 years) and technology standards ever changing leaving products redundant, we are consuming our way to ever increasing levels of waste.

The impact that humans as a species are having on our world is becoming ever more obvious with more extreme weather events and plastic waste washing up on deserted islands, something must change.

# What can we do?

A good place to start looking is at the 5 R's of recycling and how they link to electronic devices: Refuse, Reduce, Reuse, Repurpose, Recycle.

## Refuse

The first step is to try and find ways to refuse waste. This can be refusing to buy devices that are over packaged, refusing freebies or additional cables that come with devices that you don't need.

## Reduce

Reducing E-Waste is probably one the most important steps that we can take. This is about focusing on making choices when procuring device and changing habits during the device lifetime to avoid producing more waste. Here are a few ideas:

- Go paperless to avoid both extra waste from paper but also Ink cartridges
- Buy devices with a higher specification to prolong their usable life
- Ensure devices are shutdown at the end of a day or a least over a weekend to avoid using more power. Even in a sleep state the devices will draw power.

# Reuse

When thinking about reuse we need to ensure that we aren't using things that have a single use. The biggest culprit of being single use is printer cartridges/toners. Look for options to buy recycled cartridges or return them to be recycled. Also, some printers have ink tanks which allows inks to be sold in recyclable containers rather than traditional cartridges. Alternatively, go completely paperless (more about this in a couple of pages).

# Repurpose

With repurposing devices there are 2 ways to look at repurposing. Can it be repurposed internal or externally?

There are cases where devices can be repurposed internally. This could be from a power user who needs a high spec machine; once the device is no longer suitable for them, it gets passed on to a standard user who can use it for standard emails and web browsing.

When repurposing externally there are fantastic organisations like Digilocal who repurpose old devices to give to disadvantaged youth who may not otherwise be able to get access to a computer or the internet.

# Recycle

Eventually there comes a point where devices are at the end of their useful life. We highly recommend these get recycled rather than going to landfill. There are lots of rare earth metals used in modern devices that can be reclaimed rather than more having to be mined. Also, there are dangerous chemicals that can leech out into the environment if not disposed of properly. The amazing Byteback also have a computer reuse scheme like Digilocal and, provide secure data disposal and recycling. No devices sent to them go to landfill so if you are getting rid of any old devices it's worth getting in touch with them.



# #2

## Paper waste

Going paper-free brings with it some serious business benefits. Not least a reduction in office costs.

### The benefits of going paperless

- **Reduce costs** – printing costs are far higher than that of cloud or digital storage. Going paperless has a clear and identifiable impact on your business's bottom line.
- **Boost your CSR** – decrease your impact on the environment and show off your commitment to Corporate Social Responsibility.
- **Get more office space** – with no more need to store reams of paper documents, printers, and filing cabinets, you free up precious office space.
- **Improve access and version control** – with the right security information, files stored in the cloud can be accessed from anywhere. Ideal for remote work, it's also easy to see what the latest version of a file is.
- **Maximise security and organisation** – with smart cybersecurity and backups, digital documents are less likely to be damaged or destroyed. It also only takes a quick search to find what you're looking for, rather than extensive physical explorations.

# How to go paperless

## Collaborate using better tools

Collaboration tools like Microsoft 365 and Google Workspace – as well as communication tools like Teams, Zoom, Skype, and Slack – give your team easy and effective paper-free ways to work together.

They're also often the very same tools your team uses to create the documents they need to work on together, meaning document management and storage are simple.

## Set up digital or cloud file storage

In the modern world, there are very few businesses that actually need physical hard copies of most of the documents they use.

Say goodbye to dingy basements and back offices stacked with filing cabinets and hello to shared drives and digital workspaces.

Even specialist industries like the legal and financial sectors have hyper-secure software options for contracts and other vital documents that would once need to have been printed.



# Go digital for document signing

The one complaint of many people when it comes to digital documents is that they can't be signed with a good old signature.

Today, there are many fantastic green options out there for digital document signing. Signable is our favourite, but there are many others.

Electronic signatures mean no more wet signatures are required for almost any document you care to name.

## Remove (and recycle) old technology

For some members of staff, being able to see a printer is taken as a hint they can still use that printer whenever they want.

Replace easy-access printers with single centralised options with team printing credits or another tracking system. Or why not ask yourself precisely what a given team might actually need to print now. If the answer is “nothing”, then why not remove printers altogether? The same applies to photocopiers and fax machines.

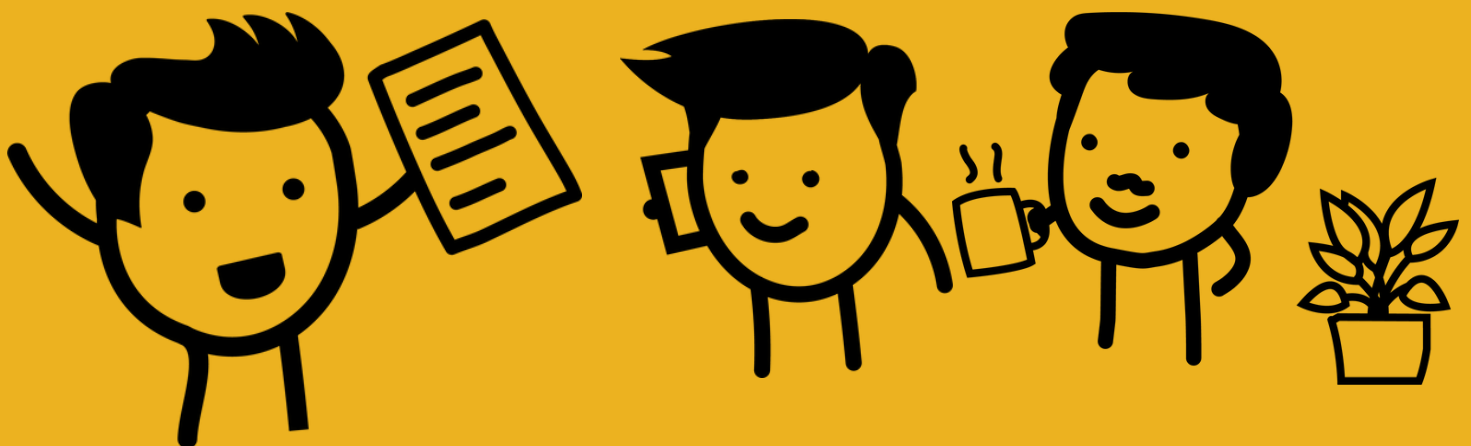
# Train your team

The way many paperless office strategies fall down is when they come into contact with team members who haven't been trained in the importance of the new processes.

Make sure every member of your team is included in that training. Creating written guidelines is vital. You may want to consider what amounts to incentives too.

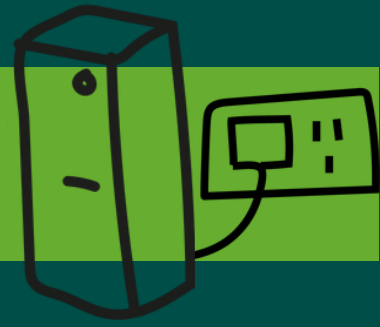
Chief among these will be highlighting the benefits to specific processes your team members follow. New ways of doing things always sound like a chore, so:

- Make it clear how these changes make life easier for your team.
- Provide clear instructions and training.
- Reinforce the message and make sure adoption is complete.



# #3

## Energy use



One of the big challenges companies trying to be mindful of the environment face is the energy use connected to their technology.

Here's a few things you could do to improve your environmental impact.

### Monitor it

Monitoring your energy use is not only good for the world, but also good for your finances. We advise you:

- **Monitor your energy use** and store this data somewhere accessible to all your staff members.
- **Monitor your remote workers' energy use.** They may not be in the office, but the energy they use is still a part of your business operations.
- **Set targets** for energy use reductions (whether absolute or relative to your income).
- **Offset your carbon emissions** with Ecologi (or similar).

# Switch it off

Not only does lighting and equipment that's on when not needed waste energy, it also adds significantly to business and personal energy bills.

- **Switch your devices off** when not in use. Don't leave them on standby.
- **Switch chargers off** at plugs so they don't waste energy.
- **Switch lights off** when you're in a different room or out of the office.

For office managers in charge of workplaces that are now partially occupied (with some stuff working remotely), this means lighting or heating only necessary parts so as not to waste energy. It's also worth noting there's no evidence leaving office lights on overnight reduces crime.

## Switch to renewable energy sources

Do you know how much of the energy you use in your office comes from renewable energy sources? If you care about the environment, it's worth finding out.

Many energy providers these days will want to boast about their green credentials, so those that don't are pretty suspect. Several smaller UK providers are wholly or predominantly green energy.

# #4

## The Cloud



Although its name may suggest otherwise, 'the cloud' is actually based on the ground and uses A LOT of energy.

Every email you send, every file you upload, all of that information is stored on a server at a physical location: in data centres. And those data centres are said to consume 1-2% of all global energy use each year.

It may sound like there's not much you can do about it... but actually, there are quite a few things.

## Choose the right provider

There are some smaller green cloud providers and we'd recommend them for a private use but we believe that the cloud giants do genuinely offer much better service for a business, with much more continuity and backup plans, as well as great collaboration tools built into the platform.

The three big cloud providers are: Microsoft, Google, and Amazon. And as much as all of them offer carbon offsets, promise to be carbon-neutral within the next few years and invest in green tech, we think Microsoft and Google beat Amazon on all fronts: they're more sustainable, more energy-efficient, more transparent, and they speak openly about their tech investments.

Our cloud-provider champion are **Google**, as even though out of the three they have the smallest share of the market, they have done the most to decarbonize their data. In 2017 they achieved 100% renewable energy across all its operations and they pledge to achieve net-zero emissions across all their operations and value chain — including their consumer hardware products - by 2030.

Before you decide which provider to go with, check their current mission, energy use, and recent investments. There will always be some down sides to Google and Microsoft (e.g. our favourite, Google, started an oil and gas division in 2018, promising to help companies extract oil and gas more efficiently), but it's up to you to chose which one aligns better with your mission and values.

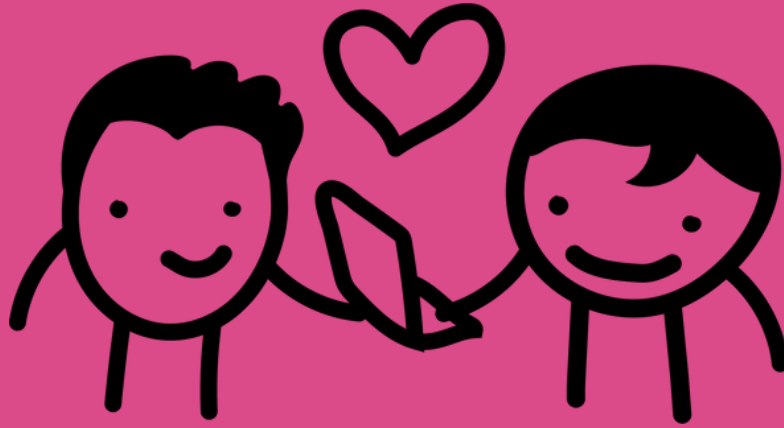
# Cut down email waste

Sending an email costs about 20 times less CO2e than posting a paper letter. Yet it does still have a small carbon footprint attached - and that footprint adds up fast.

The device you're using needs power, of course. But each email also needs space in each data centre it passes through on its way to its destination. Creating that space means emissions.

- **Don't email unnecessarily** or send short messages like "OK" or "thank you".
- **Write as concisely as possible** (longer emails require more energy to be read and more space in data centres).
- **Fight spam** by unsubscribing from old mailing lists, updating your own mailing lists, and avoiding sharing your email address where it can be found by spammers.





## Let us know if we can help

If this guide got you thinking or you want to hear our other ideas - get in touch.

We'd love to discuss your tech, how it impacts the planet and how we could improve that (while still helping your business grow, of course!).

Call us on 0117 369 4335 or email [help@dialageek.co.uk](mailto:help@dialageek.co.uk) to arrange for a no-commitment review with Gildas.



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