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Sustainability print FAQs

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How can print materials be produced in a sustainable manner?

There is lots to consider with every piece of print:

- What is the purpose of the print? What do you want the recipient to do with it?
- What paper stock will be used?
- What production processes will be used?
- What inks, varnishes and finishing are required?
- How will it be packaged?
- How far will it travel?
- What will happen to it at end of life?

The first step is to understand the environmental and carbon impact generated by all parts of the production and delivery process. The decisions you make during the design process will impact the sustainability of the finished product along with the partners and materials you choose. You may need to strike a balance to find a design that delivers both on consumer engagement and sustainability.

Generally, the more materials and processes used, the higher the environmental footprint.

Ensure you engage with your print provider or production expert at an early stage to ensure your design makes the most out of the materials and format you are planning, with as little waste as possible.

There are ways to reduce the environmental and carbon impact of manufacturing and delivering print. By taking every opportunity to regenerate, reinvent, reduce, reuse, and recycle print during its lifecycle, it can be part of a circular, regenerative economy.

PAPER

Is paper sustainable?

Paper comes from a natural, regenerative, renewable resource. Paper is one of the most recycled products in the world and epitomises the circular economy model of make, use, recycle and reuse.

- The paper recycling rate in Europe is 71%, with the paper packaging recycling rate even higher at 82%.
- Paper cannot be recycled indefinitely as the fibres get too short and worn. Therefore, a supply of virgin fibre from sustainably managed forests is needed.
- The paper industry is the single largest industrial user and producer of renewable energy in the EU.
- The paper industry has reduced carbon emissions by 50% per tonne of product from 1990 to 2022, and the paper, pulp and print industry account for 0.9% of European emission in 2021 (https://www.eea.europa.eu/data-and-maps/data/data-viewers/greenhouse-gases-viewer)
- Well-managed sustainable forests provide multiple benefits to society, such as supporting rural economies, regenerating nature and biodiversity, preventing localised flooding, maintaining local water tables, while helping to tackle climate change.

How can you ensure responsible sourcing of paper for printing purposes?

Almost all paper for large run printing purposes in Europe holds FSC Mix certification so originates from sustainably managed forests. There are multiple pieces of legislation in place across the EU and UK requiring all companies selling wood-based commodities to undertake due diligence obligations to reduce global deforestation and protect pristine forests.

You can request paper certified by organisations such as Forest Stewardship Council (FSC) or Programme for the Endorsement of Forest Certification (PEFC), which guarantee sustainable forestry practices. These certifications also protect the rights of indigenous communities.

You can also use FSC or PEFC logo on your work to help educate your end consumers on the sustainability of the paper used.

How many trees does it takes to make a tonne of paper?

This isn't an easy one to answer! It depends on a lot of variables including the species of tree, the global location and the type of paper. Typically, only the top third of a tree is used to make paper. The rest is used for timber for building, furniture and multiple other uses.

Is recycled paper better for the environment than virgin stock?

Recycled paper has a slightly lower carbon footprint than virgin stock. However, paper cannot be recycled indefinitely as the fibres get too short and worn. Therefore, a supply of virgin fibre from sustainably managed forests is needed.

What is carbon balanced paper?

Carbon balancing means that the carbon footprint of a product / activity has been calculated and then an equivalent amount of carbon has been removed, usually through offsetting.

Carbon Balanced Paper is a simple way for organisations to reduce the carbon impacts of their paper and printed communications, reducing their carbon footprint and impacts on climate change.

Carbon Balancing is delivered in partnership with World Land Trust, an international conservation charity, through the protection and restoration of threatened forests in the tropics.

Protecting carbon-rich habitats avoids the release of stored carbon and enables the regeneration of degraded habitats, which gradually re-absorb atmospheric CO2. These same habitats are home to hundreds of threatened species, meaning the benefits of choosing Carbon Balanced Paper exceed far beyond carbon offsetting alone.

For more information, please see here: https://carbonbalancedpaper.com/

You can request Carbon Balanced paper from your printer.

THE PRINTING PROCESS

What should I consider when selecting a print partner?

Are there certifications or logos to look for when choosing or using sustainable printing services?

Look for partners that can support your own sustainability goals and targets. Ensure that sustainability questions covering all areas of Environmental, Social and Governance are asked during your due diligence or supplier onboarding process.

There are a whole host of certifications you can look out for:

- **ISO 14001** is an internationally recognised environmental management system standard. It sets guidelines for organisations to establish, implement, maintain, and improve environmental policies and procedures. Compliance demonstrates a commitment to reducing environmental impact and promoting sustainability within business operations.
- **ISO 50001** is an international energy management system standard. It provides a framework for organisations to establish, implement, maintain, and improve energy performance and efficiency. Compliance helps organisations enhance energy usage, reduce costs, and demonstrate commitment to sustainable energy management practices

- **ISO 14064** is an international standard specifying principles for quantifying and reporting greenhouse gas emissions and removals. It helps organisations assess their carbon footprint, track emissions, and manage their climate impact effectively. Compliance supports transparent reporting, sustainable practices, and climate action in line with international goals.
- **FSC** is a global certification body ensuring responsible forest management. They set standards to promote environmentally sound, socially beneficial, and economically viable forestry practices. FSC certification signifies that wood and paper products come from sustainably managed forests, supporting biodiversity and local communities.
- **PEFC** provides certification for sustainable forest management. They endorse and promote sustainable forestry practices, ensuring wood and paper products meet strict environmental, social, and economic criteria. PEFC-certified products contribute to the responsible management of the world's forests.
- **B Corps** B Lab UK serves as the certifying body for B Corporations in the region, overseeing the certification process and ensuring that businesses meet the rigorous social and environmental performance standards, transparency, and accountability required to become a Certified B Corporation. It provides resources, guidance, and a platform for businesses seeking to align their operations with B Corp values and achieve certification.
- **Carbon Balanced Printers** measure their entire CO2 output across the whole company. They continually work to minimise their footprint to help balance or offset any unavoidable emissions through the print process.

Certifications are a great way for businesses to ensure they have continuous improvement programmes in place. However, please be aware that small or medium sized businesses may not have the resource to put certifications in place but may have really great environmental and social value practices. Make sure that your supplier selection processes accommodates different sized businesses.

Facts about the UK print industry (taken from BPIF)

- 8,000 companies
- 112,000 employees
- £14 billion turnover

What are the environmental impacts of ink and toner usage, and how can they be mitigated?

There are many different types of ink and toner. More sustainable inks include vegetable, UV and water-based inks. These inks do not contain petroleum oil and are made using more sustainable sources such as soy and linseed. They also reduce the release of Volatile Organic Compounds (VOCs) during print production. UV inks generally do not need additional coatings.

Ask your print partner about the type of ink they use and check they have a process to properly dispose of empty cartridges and ink waste through robust recycling programs.

Your design decisions can help reduce the environmental footprint associated with ink:

- Minimise ink coverage, the greater the ink coverage, the more resource used, and more energy is required to dry the print prior to finishing. Of course, you need to strike a balance between an engaging design and sustainability.
- Avoid special ink colours, metallics and foils.

How can you minimise paper waste throughout the printing process?

Many of the decisions you make during the design and planning stages will help reduce the amount of paper waste during the printing process:

- Choose a design and layout that maximises the use of the paper. Your item's artwork will be planned and laid out to print multiple copies on large sheets of paper that are then trimmed and finished to create your finished item. Any unused paper on the sheet that is trimmed off is wasted. Liaise with your printer at design stage to maximise layout.

- Minimise colour the “bleeds” to the edge of your design, this requires the colour to be printed beyond the edge of your design to ensure that once trimmed there is no white showing around the edge of your item. This requires additional space between the layout copies that will be trimmed off as waste.
- Minimise finishing requirements. The more processes your item has to go through the more “overs” are required to accommodate set up and spoilage through the machinery.
- Plan and keep to your schedule (as much as possible!). Your printer will plan their work carefully and may be printing multiple jobs batched together to improve their efficiency. Whilst last minute delays and changes do happen, this may require additional make ready on the presses.

Your printer will have many programmes in place to reduce paper waste including:

- Planning and batching work with similar ink coverage, size, stock types and finishing to minimise make ready waste and reduce set up times
- Scheduled machine cleaning and maintenance to reduce machine breakdowns and spoils

Careful inventory management and printing on demand can help reduce overprinting and subsequent wastage.

You can also consider by printing on-demand to avoid producing too many and using digital proofs instead of physical ones.

Additionally, encourage recycling of printed materials and properly manage inventory on a just-in time (JIT) basis to avoid overprinting.

Are there alternative materials or printing techniques that could reduce environmental footprint?

There are alternative papers made from bamboo or hemp paper, which have lower environmental footprints compared to traditional wood pulp paper. However, they are not suitable to high-speed printing, but may be suitable for small scale marketing campaigns.

How does digital printing compare to traditional printing methods in terms of sustainability?

Digital printing can a lower environmental impact than traditional print methods due to reduced setup waste, lower energy consumption, and the ability to print on-demand, minimising overproduction, and waste. However, you need to select the most suitable print method for your work.

There are two printing methods to consider, which to use will depend on the size of your print run, the finish, and if personalisation required. Both have advantages and disadvantages in terms of cost and each will suit different paper stocks and inks:

- Large marketing print runs, or with high ink coverage are more cost and environmentally effec-tive using conventional litho printing techniques, where printing plates or screens are created.
- Small print runs or those requiring personalisation are more suited to digital printing, where make ready is shorter

What strategies can be implemented to reduce energy consumption in print supplier operations?

Ask your printer about their energy efficiency programmes. Energy is a large expenditure for printers; programmes they have in place will generally include:

- energy-efficient printing equipment
- optimised print settings for energy savings, and consolidate print jobs to minimise machine idle time.
- Additionally, enquire as to whether the print partner is considering or is using renewable energy sources to power printing operations whenever possible.

What steps can be taken to promote recycling and responsible disposal of printed materials?

Encourage or mandate recycling by using paper with high post-consumer recycled content, provision of recycling bins, and that there is a robust education programme within the print partner(s) covering the importance of responsible disposal practices.

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CARBON

What is the difference between Carbon Neutral / Carbon Balanced and Carbon Net Zero?

Carbon Neutral, or Carbon Balanced means that the carbon emissions associated with the lifecycle of a product / service or activity have been calculated, then an equivalent of CO2e has been removed, usually through a carbon offsetting scheme. Carbon offsetting through high quality, externally verified schemes can be part of a businesses Sustainability strategy. However, be sure to check that the business is also taking steps to reduce its carbon emissions alongside offsetting activity.

Carbon Net Zero means that a company has a Carbon Reduction plan is place that aligns with the Paris Climate Agreement and should support the ambition to limit global warming to 1.5 degrees C above pre-industrial level. A carbon net zero plan should have both short and long term targets to reduce Scope 1, 2 and 3 carbon emissions, with a minimum of a 90% reduction by 2050 at the latest.

How do I measure the carbon footprint of our print?

Measuring the life cycle carbon footprint of a product / service should include all stages of activity from extraction and production of raw materials through to either end of life (known as cradle to grave) or point of use (cradle to gate).

For a printed item this will generally include:

- Paper (extraction, production and delivery)
- Ink (production and delivery)
- Print production
- Packaging
- Delivery to point of use (this could be through the postal system, or to warehouse / office locations)

Ask your print partner if they can calculate the lifecycle carbon footprint of the products and services they provide. Bear in mind that carbon lifecycle calculations are still relatively new, there will be variations in the methodology and data available. The important thing is to make a start and not let the lack of accurate data stop you from making progress. Getting to accurate carbon data is an important part of the Net Zero journey.

I have the carbon footprint of my print. Is it good or bad?

it is neither good or bad. Look on it as a starting point against which to measure future improvements. You may want to compare it to a meaningful statistic, such as the emissions from an equivalent number of cars or houses.

How do I reduce the carbon footprint of my print?

Reducing the carbon footprint goes hand in hand with the previous sections of this guide.

As a general rule, the less processes, the less materials, the less waste then the lower the carbon footprint. The majority of the carbon footprint from the lifecycle of a printed item will be from the raw material (paper), and postal delivery (if going thought the postal system). You need to consider all stages of the lifecycle:

- Data and targeting:
  - Check your database is up to date to avoid contacting people who have moved, or are deceased.
  - Focus on your warmest audience, This will result in small print volumes and increase ROI
- Design. Generally using less raw material and less processes means less carbon. Consider:
  - Size and format. Could a smaller size, or reduced number of pages deliver the same result? Less paper used will reduce the carbon footprint
  - Ink coverage. A reduced ink coverage will mean less ink used, and less energy for drying. Note: it may not always be possible to measure the carbon savings for this
  - Consider using a lighter stock where this will not compromise the design element. Reduced weight of materials used results in reduced carbon footprint
- Partners. Select print, paper and delivery partners who are committed to measuring and reducing their carbon footprint

GENERAL

Will choosing sustainable options cost more money?

Sometimes. Many of the environmental and carbon reduction methods described above will save money as less as reduce environmental and carbon footprints. Generally, using less raw materials will cost less money.

Some options may be more expensive. You could start with implementing options that save both cost and carbon, then use those savings to offset solutions that may be more expensive.

Remember that whilst you are aiming for the most sustainable options possible, you don't have to make that leap in one go if it is currently cost prohibitive. There may be smaller steps that can be implemented on the journey to your end goal.

You could consider setting an internal cost for carbon and setting a carbon budget alongside a financial budget for your print. This would help drive responsible behaviour, design and purchasing decisions.

How can I avoid greenwashing?

The Competition & Markets Authority have published guidance on making environmental claims on goods and services to help businesses comply with consumer protection laws.

The principles of this guidance are:

- Claims must be truthful and accurate
- Claims must be clear and unambiguous
- Claims must not omit or hide important relevant information
- Comparisons must be fair and meaningful
- Claims must consider the full lifecycle of the product and service
- Claims must be substantiated

In general, make sure that all messaging, whether relating to the printed item itself, or the product, service or business it is marketing are clear, concise, can be backed up with data and do mot mislead the public in thinking that the product, service or business is more sustainable than it is.

For more information, visit: https://greenclaims.campaign.gov.uk/