

ANALYSIS

TODAY'S ECO-CHALLENGE: BECOMING A SUSTAINABLE PRINTER

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contents

Table of Contents

Introduction.....	2
What Does Sustainable Printing Mean?.....	2
Paper's Role in Sustainability Practices.....	2
Sustainable Energy Use.....	5
Toxic Materials and Processes.....	5
Automated Printing Processes and Workflow.....	6
What Can You Do to Promote Sustainability?.....	6
Opinion.....	7

List of Figures

Figure 1: FSC and SFI Logos.....	3
Figure 2: The Rainforest Alliance and PrintReleaf Logos.....	4



Introduction

Customers are conscious about the detrimental impact that print production processes can have on the environment, so it's becoming more and more important for print service providers (PSPs) to position themselves as sustainable and environmentally sound. What can today's PSPs do to become truly sustainable? This document provides concrete examples of what some PSPs are doing, and these can serve as a pathway for your own initiatives.

Four aspects of sustainability are particularly relevant to PSPs: paper use, energy consumption, avoidance of toxic materials, and workflow automation. We will cover each of these topics, but first let's start with a definition of sustainable printing.

What Does Sustainable Printing Mean?

There is no single definition for sustainable printing, but it starts with environmentally-friendly printing technologies and practices that limit the use of solvents, the greenhouse gases released, and waste byproducts. It builds on environmentally-sound paper production and the use of recycled papers where feasible. Environmentally conscious print shops pay attention to their energy use and take advantage of any renewable energy resources. They concentrate on the proper disposal of waste materials and recycle as much as possible. They also adopt automated workflow practices that limit waste through on-demand print production and just-in-time manufacturing. They target customers and markets with variable data messages that increase the value of print. Combined, these practices improve efficiency while also making these PSPs more appealing to their customer base.

Paper's Role in Sustainability Practices

Paper is central to the printing process, and it's one of the most significant purchase areas for any PSP. As a result, it's no surprise that the use of paper plays a key role in sustainability strategies. How you purchase and recycle paper will be a major factor in whether your shop is perceived as environmentally friendly.

Two paper certification acronyms, FSC and SFI, will likely be familiar to you:

- ◆ **FSC:** The Forest Stewardship Council (FSC) is dedicated to the responsible management of the world's forests through a certification process. When a paper manufacturer is FSC-certified, it gives PSPs assurance that the company follows sustainable practices (e.g., compliance with laws, support for workers' rights and employment conditions, indigenous peoples' rights, and environmental and conservation values). Printing companies that want to promote their printing as FSC-certified must go through a chain-of-custody process that confirms the use of FSC-certified products. There are three types of FSC labels:



- The highest level, **FSC 100%**, means that all of the materials used meet FSC standards.
- **FSC Recycled** means that all of the materials used are from post- or pre-consumer sources (no virgin materials used).
- As the name implies, **FSC Mix** certifies that the product comes from a mixture of responsible sources, including FSC-certified forests, recycled materials, and other verified wood.
- ◆ **SFI:** The Sustainable Forestry Initiative (SFI) is a forest certification standard that operates in the United States and Canada. Its work builds on standards, conservation, community, and education. Similar to FSC, the labels on SFI-certified products appear in several variations, all of which certify the chain of custody and promote sustainable forestry through recognized global standards. The labels vary depending on the amount of certified content in the product. SFI also offers a chain-of-custody standard process for those who wish to be SFI certified. SFI standards relevant to paper (bear in mind that there are wood products for many other industries) include:
 - The **SFI Forest Management Standard:** Intended to protect and conserve water quality, biodiversity, wildlife habitat, species at risk, and forests
 - The **SFI Chain-of-Custody Standard:** Designed for tracking forest fiber through harvesting to manufacturing and to the end product
 - The **SFU Fiber Sourcing Standard:** Supports sustainability through procurement practices and tracking of environmental performance forestlands.

As a PSP, you'll have a couple of your own decisions to make. For one thing, you'll need to decide whether or not to pursue FSC or SFI certification. More importantly, though, you should be looking for FSC and SFI labels on the paper products that you buy.

Figure 1: FSC and SFI Logos



FSC and SFI are not the only certification standards. You might also notice the symbol of a tree frog, which represents Rainforest Alliance certification. For products like paper and cardboard packaging, the seal means that the product or package has been sourced from forests certified to the standard of the Forest Stewardship Council as well as to the Rainforest Alliance's three pillars of sustainability: social, economic, and environmental. The



Rainforest Alliance was one of the founding members of FSC. Those who use the seal are members of the Rainforest Alliance's Forest Allies Initiative.

Another program related to certification, and specifically to reforestation, is PrintReleaf. With the help of a software platform called the PrintReleaf Exchange, users can calculate the amount of paper consumption in a product and equate that with the forest impact as measured in trees. Users can then “releaf” (i.e., replant) their paper consumption by planting trees as part of PrintReleaf's reforestation projects. PSPs can become authorized PrintReleaf partners and use the PrintReleaf software with their customers.

Figure 2: The Rainforest Alliance and PrintReleaf Logos



In discussions of paper and its role in sustainability, you will undoubtedly hear some folks make comments about how businesses can save trees by not printing. While it's true that most papers are made from tree pulp and that virgin papers (i.e., those that use no recycled content) consume some new trees, it is equally true that trees are a renewable resource—with careful forest management, they can provide an unending supply of wood and wood pulp. Forests management is an important responsibility of paper companies, and they take that role quite seriously.

One group that does a great job of dispelling myths about printing is Two Sides. The firm's goal is “to dispel common environmental misconceptions and to inspire and inform businesses and consumers with engaging, factual information about the sustainability, versatility, and attractiveness of print, paper, and paper-based packaging.” Two Sides encourages its members to promote sustainable and responsible business practices through the sourcing of materials, print and design, production, consumption, and disposal. The group provides useful charts and graphics that are posted publicly on its website. PSPs can also become Two Sides members to gain additional benefits.

Finally, the recycling of your paper waste is another important topic that most PSPs recognize, not only for their printing paper waste, but also for cardboard, plastic, and other packaging waste that comes along with the consumables they purchase.



Sustainable Energy Use

Another important aspect of running a sustainable print shop lies in paying attention to your energy requirements and reducing overall energy use where possible. These might be things that any business could do, including running an energy audit and assuring that your heating & cooling equipment runs efficiently and that your building is adequately insulated, but there is certainly more that can be done. Eco-friendly businesses pay attention to the source of their energy, and they work to acquire their energy from renewable sources like solar and wind power when possible. Some PSPs have taken this to the next level by meeting a portion of their energy needs through solar panels and/or wind turbines on the roofs of their own facilities. If you own your building (or even if you don't!), the flat roofs of many industrial buildings are well-suited to installing solar panels and smaller wind turbines. A great example of this is the work done by [Cox Printers](#) in Linden, New Jersey. In addition to having solar panels and wind turbines, the facility also has a beehive and grows milkweed for butterflies.

Carbon neutrality is a hot topic too. Some companies offset their carbon footprint (particularly related to shipping) by purchasing [Renewable Energy Certificates \(RECs\)](#) to offset their carbon generation. Organizations like [Carbonfund.org](#) help businesses facilitate the purchase of carbon credits. The idea, in a nutshell, is to reduce your carbon footprint by lowering your energy use as much as possible and to offset the rest through the purchase of RECs. A REC (pronounced 'wreck') represents "the property rights to the environmental, social, and other non-power attributes of renewable electricity generation." In essence, a renewable energy site makes the energy, and you, by purchasing the associated RECs (in quantities based on megawatt-hours of electricity), gain the property rights to that energy.

Toxic Materials and Processes

Printers must also do all they can to reduce the use of solvents and hazardous materials. Part of that is choosing more sustainable technologies, for example, this might involve reducing or eliminating the use of processes that produce ozone or result in hazardous chemical waste. With advancements in prepress, chemistry-free processes for platemaking have become commonplace. Soy or other vegetable-based inks can also be more eco-friendly. Moving away from conventional offset lithographic, screen, and gravure printing methods toward toner- or inkjet-based digital print systems also significantly removes chemical processing from the standard operating procedure. Government programs like the Environmental Protection Agency's WasteWise government program encourage sustainability in business practices and waste reduction. Although the EPA is no longer accepting new WasteWise members, PSPs should keep abreast of the government's plans for new [Sustainable Materials Management Partnership Programs](#).



Automated Printing Processes and Workflow

The amount of waste that a PSPs creates can be reduced through automation. This is particularly true of paper, but it also applies to inks, toners, and other consumables. Jobs that have to be re-run because of quality control issues are an example of waste that can be avoided through improved efficiency.

In addition, personalized and targeted printing methods make print more valuable while reducing the waste associated with generic “spray and pray” junk mail campaigns. In the same way, on-demand and just-in-time processes using digital document repositories greatly reduce the risk of having to throw away outdated materials that are stored in physical warehouses. These processes are facilitated by production digital printing systems that enable automated workflows and on-demand printing. Another eco-friendly side benefit of digital print is that these systems eliminate the need for film or plate processing chemicals. In addition, most (though not all) digital printing systems use biodegradable inks or toners that do not cause issues during recycling.

What Can You Do to Promote Sustainability?

Here are some concrete actions:

- ◆ Buy certified papers that are endorsed by organizations like FSC, SFI, and the Rainforest Alliance
- ◆ Become chain-of-custody certified in terms of your paper use with FSC and/or SFI
- ◆ Contribute to reforestation through programs like Releaf
- ◆ Get your energy through sustainable sources like wind and solar power; consider purchasing carbon offsets to become carbon-neutral as a business
- ◆ Offset your energy use with energy from your own rooftop solar panels or wind turbines
- ◆ Print efficiently and effectively to avoid unnecessary waste
- ◆ Use personalized, print-on-demand, and just-in-time manufacturing techniques
- ◆ Effectively recycle your paper and other waste products
- ◆ Participate in government programs where feasible
- ◆ Think creatively about innovative ways that your company can help the environment in your community and beyond (for example, rooftop beehives and wildflower beds, highway litter reduction programs, and financial support for environmental causes)
- ◆ Become part of coalition of green printers: One example of this is [the Sustainable Green Printing Partnership](#), an organization that promotes sustainability in printing practices and manufacturing operations



Opinion

Your eco-friendly strategy can be an important competitive differentiator for customers and prospects. It's difficult to find any company today that doesn't have a sustainability statement as part of its corporate practice. By building in conscientious paper purchasing, effective use of technology and energy, high levels of automation, and imaginative green practices, your customers will understand that there is more to printing than the cheapest price. As you have certainly seen, some of your customers (particularly those from larger corporations) may be bound to environmentally sustainable purchasing buying practices.

In addition, it's important to include elements of your sustainability strategy in your marketing and sales programs. Make these efforts visible on your website, in your employees' e-mail signatures, and on their business cards (these could include certification logos). Also, don't forget to incorporate this information into your sales presentations and social media advertising.

There is much more to sustainable printing operations than can be covered in a short document, so keep researching and educating yourself on the topic. A sustainability strategy is an essential piece of any PSP's strategy. In today's environment, eco-friendly practices simply make good business sense!



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