



Design for Sustainability

DESIGN FOR SUSTAINABILITY

Overview

Good design is sustainable, so sustainability must start with the designer. The best moment to make low-impact choices about materials and production is at the beginning of the creative process. Designers and developers can control upwards of 80 percent of a product's environmental impact, according to the [Sustainable Apparel Coalition](#). There are many creative solutions and paths to sustainability and the path you choose to take will be unique.

In this section, we provide you with design strategies, solutions, and tools to help you design with sustainability in mind. The ones you choose to utilize will vary depending on the specific challenges you face or specific goals you want to achieve.

EILEEN FISHER

“Our goal is
simple: design
without adverse
impacts right
from the start.”

WORKSHEET

Sustainable design strategies

Numerous design strategies exist that can lead to more sustainable business practices and products, which then also lead to greater profitability. Here is a brief overview of ideas to keep in mind.

Design to Have Positive Impact

- How is your design making the world better or solving a problem?

Design for Circularity

- One current goal for sustainability in fashion is the creation of a circular product cycle and economy. Circularity, also known as the Cradle to Cradle approach, is the idea that products not only cause no harm, but actually benefit people and the environment along the entire product's lifecycle. Cradle to Cradle proposes a future "where design is a positive, regenerative force, producing effects that we want to expand rather than shrink." In addition to having positive impact, products create no waste - all materials are either infinitely recyclable or biodegradable.

Reduce Materials & Waste

- Use less.
- Move towards zero waste at all stages, like creating zero waste patterns.
- Consider a reduction in material weight and size, especially with packaging components.

Substitute for Better, More Energy Efficient Materials

- Utilize less toxic, more sustainable materials. (See our the [Materials](#) section

of this guide for more information.)

- Consider repurposing materials/ deadstock. Ex: Eileen Fisher Remade
- Use renewable energy sources where available.

Use Fewer Materials

- Once fibers are blended, or different materials are mixed together, they become very difficult to recycle. Create products with one material that can be more easily placed in a closed loop recycling system.
- Design for Disassembly. If a product is designed using different materials, allow for each element of a product to be separated and recycled differently.

Design for Customization and Multi-Use

- Create opportunities for the wearer to add personal elements or customize a product.
- Create designs that can be adjusted by the wearer to have different fits and/or serve multiple functions. For example, a jacket with layers that can be added or removed depending on the weather. If one garment serves multiple needs, people don't need as much stuff.

Design for Durability & Longevity

- Create high quality products with resources to extend product life through repair + mending services.

Efficiency for Best Environmental Impact

- Leverage technological and process innovations to design in solutions with greater efficiency and less impact.

WORKSHEET

Sustainable design strategies cont'd

Keep Things Local

- Reduce transportation and energy emissions by working with local suppliers and vendors.
- Working local also makes it easier to understand your social and environmental impact because you can observe it in your local community.

Consider Using Digital Resources

- Transform physical objects into digital or virtual information. For example, use digital 3D visualization technology that minimizes the need to produce samples.

Give Your Customers Instructions

- Label customer care and end-of-life instructions.
- Design things to be washed and dried less frequently with less impact, and make care instructions very clear to consumers.

Design Closed-Loop Systems

- Consider implementing take-back programs to take responsibility for the reuse and recycling of products you create.

Generate Financial Value

- Produce products that become more valuable with time instead of less.

Create Social & Cultural Value

- Desirability & meaning – how will you create a strong emotional bond between wearer and product?
- Design products that are needed & useful.
- Design products with cultural vitality.

Plan Ahead

- Rushing things can hurt people and the environment at all stages. For example, shipping by sea has less environmental impact than shipping by air, but it takes longer so you have to plan ahead. Doing things last minute/rush orders make factory work flow more volatile, often extra workers are brought in only as contractors and workers are forced to go into overtime. Planning in advance allows for more stable and healthy working conditions, in factories as well as your own design room.

Develop Long-Term Personal Relationships with Your Suppliers

- This is better for your suppliers, who have more stable work. It also gives you better insight into your social and environmental impact and the ability to work with your suppliers toward improvements.

Use Nature as an Inspiration & Guide

- This concept is also referred to as Biomimicry. Not only can this help you innovate smart or beautiful design ideas, but it also keeps you from forgetting about your connection to nature more generally. If you're inspired by nature it's harder to hurt nature.

Be Authentic

- Be original! You can be inspired by other artists and cultures, but be respectful too.



TOOLS & RESOURCES

Tools to help you design for sustainability

[Okala Practitioner Guide](#)

The Okala Ecodesign Strategy Wheel clusters strategies according to the stages of the life-cycle of the product. Designers can use many of these strategies, or focus on a few. These strategies include both hard and soft aspects of eco-textile design such as principles of low toxicity, organics, biomimicry alongside more conceptual ideas like long life and low-laundry textiles. The wheel serves as a powerful brainstorming tool and provides designers with practical methods for designing products, services, and systems with low impacts to ecological and human health. The Impact Factors LCA was designed for quick decision making so that ecological impacts can be easily factored into design decisions. Both Okala and Ted Ten provide an archive of research activity around sustainable textile methodologies and new thinking.

[Lunar Elements' Designer's Field Guide to Sustainability](#)

A tool for understanding sustainable product development and the product life cycle. While not a measured index, the Field Guide asks designers to consider the impact of their decisions. The guided questions focus on four main themes. What is the product trying to accomplish? How is it brought to life? How is it used? Where does it end up?

[Ideo Circular Design Guide](#)

A compilation of hands-on exercises and worksheets that help innovators create more elegant, effective, creative solutions for the circular economy. This guide presents solutions that are invaluable for people, give businesses a competitive advantage, and are regenerative for our world.

[Global Fashion Agenda Circular Design Toolbox](#)

This toolbox is designed to support fashion brands and retailers who would like to explore circular design within their company. It highlights the role design plays in creating a circular fashion system and is aimed to redefine the life cycle of garments by looping them continuously back into the fashion system.

[Sustainability Scorecard from California College of the Arts](#)

A one-page scorecard intended to help evaluate proposed project solutions across multiple pieces of sustainability and value creation. The objective is to arrive at a score for each of the strategies with notes about the solution's impacts. You can use this tool to self-rate the positive impacts and performance of your solution. The scorecard is based on the AIGA Living Principles.

[Higg Design & Development Module \(DDM\)](#)

The Higg DDM helps designer and developers create more sustainable garments by scoring apparel, footwear, and home textile products early in the design process. (Available to Sustainable Apparel Coalition members only.)

[Ted Ten](#)

A set of practice-based sustainable design strategies that assist designers in creating textiles that have a reduced impact on the environment.



TOOLS & RESOURCES

Suggested reading

Books:

Fashion & Sustainability: Design for Change

Lynda Grose & Kate Fletcher

Sustainable Fashion & Textiles: Design Journeys

Kate Fletcher

Design is the Problem

Nathan Shedroff

Fashion Fibers: Designing for Sustainability

Annie Gullingsrud

Cradle to Cradle

Michael Braungart and William McDonough

Shaping Sustainable Fashion. Changing the Way We Make and Use Clothes

Alison Gwilt & Timo Rissanen

Sustainable Fashion: New Approaches

Kirsi Niinimäki



Intellectual property & cultural appropriation

Good designers don't exploit or copy other people. We recommend checking out these resources to learn more about intellectual property and cultural appropriation:

- [The Fashion Law Institute and Professor Susan Scafidi](#)

Their list of up-to-date articles is pretty amazing

- [Timo Rissanen's Blog](#)

These two posts contain valuable thoughts and links to other great reading:

- [Resources on cultural appropriation in fashion](#)
- [On inspiration](#)



DESIGN IT. PROTECT IT.

ideas **creativity** inspiration **passion** originality **business** experience
integrity **innovation** reputation **respect** confidence **talent**

CFDA