

# CIRCULAR DESIGN GUIDE.

CLOTHING  
THAT  
CARES.



LYFCYCLE<sup>®</sup>

**1. DURABILITY**

**2. SIMPLICITY**

**3. EFFICIENCY**

**4. BIODEGRADABILITY**

**5. RECYCLABILITY**

**6. NEUTRALITY**

**7. CIRCULARITY**

**8. TRACEABILITY**

**9. GREEN ALCHEMY**

**10. ECO ACCESORY**

# INTRODUCTION

Welcome to the Lyfcycle Circular Design Guide. This guide is designed to provide a framework for creating more sustainable apparel that doesn't cost the earth.

At Lyfcycle, we follow our principles of circular design when creating clothing that cares.

We want to share our design guide with the world to help others integrate circular thinking into their business models.

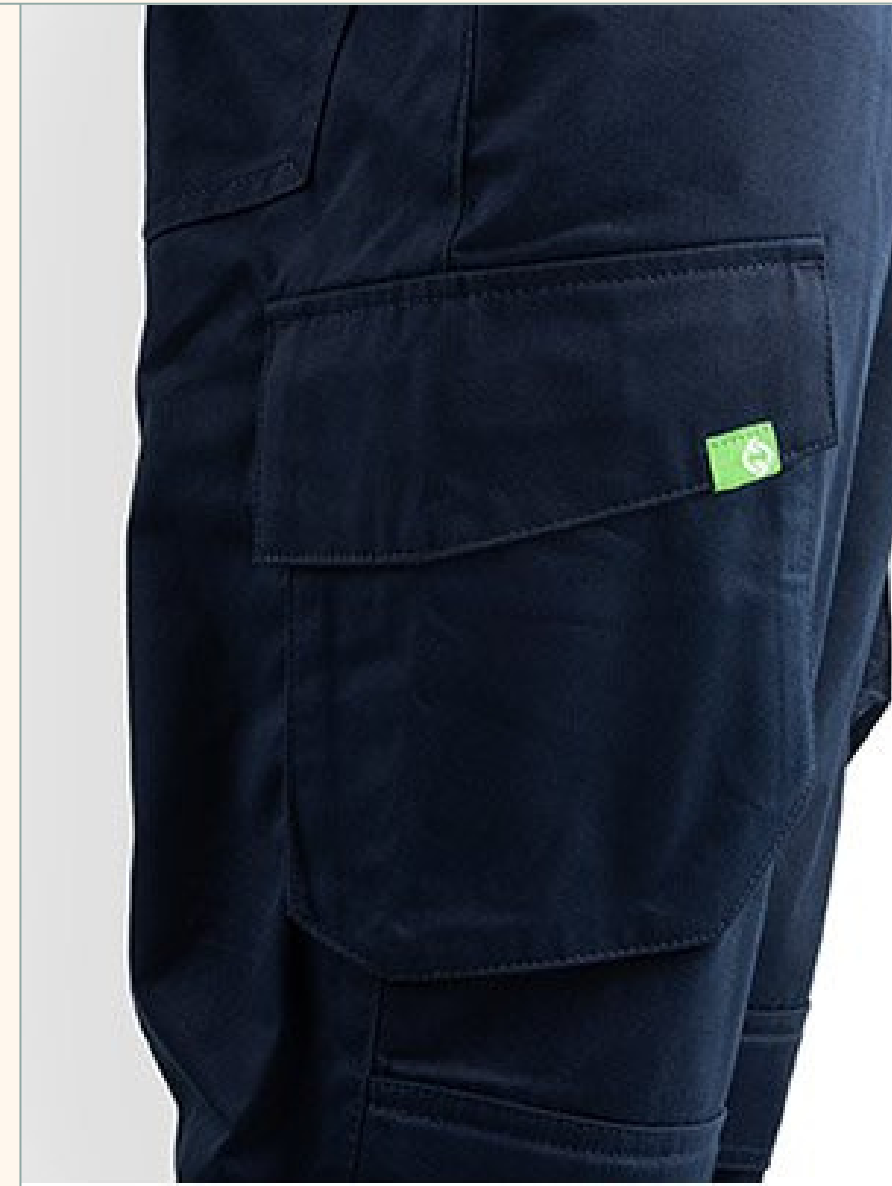


# DURABILITY

Focus on creating garments that last longer through the use of high-quality materials and construction techniques.

This principle champions the creation of garments that endure not just the wear and tear of daily life but also the rapid changes in fashion.

By investing in high-quality materials and robust construction techniques, we lay the foundation for apparel that not only lasts longer but also defies disposable culture.



## Quality Materials

Choose high-grade, resilient materials that can withstand wear and tear over time.

## Robust Construction

Employ advanced construction methods that reinforce the garment's structure.

## Testing

Take additional measures to test fabric & garment performance to ensure durability prior to production.





# SIMPLICITY

Embrace minimalism, avoiding superfluous elements to reduce waste and simplify repurposing or recycling.

- Adopt a clean and purposeful design ethos, where every element is essential
- Embrace minimalism and reduce waste at the outset, streamline the manufacturing process, and enhance the potential for repurposing or recycling.

# EFFICIENCY

Optimize the use of materials and resources to minimise waste at every stage of the production process.

## Waste Reduction

Implement precise cutting techniques and modern pattern technology to reduce fabric waste in the manufacturing process.

Designing minimal, reusable, or recyclable packaging solutions to cut down on waste and environmental impact

## Resource Optimisation

Adopt water-saving technologies in dyeing and finishing processes to reduce the water footprint of garment production.

Utilise renewable energy sources for operations & manufacturing, such as solar or wind power.

## Technology

Explore 3D Design Software to reduce requirements for prototyping & sampling. This can help to minimise waste & reduce emissions in the product development process.





# BIODEGRADABILITY

Prioritise natural materials that are biodegradable or compostable, ensuring that garments can be safely broken down.

This principle focuses on the selection and prioritisation of natural materials that can safely decompose, returning to the earth without leaving harmful residues.

By choosing biodegradable fibres and dyes, we ensure that our garments can complete their lifecycle in a way that nourishes the planet, presenting an elegant solution to the problem of post-consumer waste.



## Natural Fibres

Organic cotton, hemp, linen, lyocell and other natural fibres are not only renewable but also biodegrade more easily than synthetic alternatives.

## Plant-Based

Textile innovations are constantly being introduced and plant based synthetics is an area that shows a lot of promise for the future.

## Chemicals

Eco-friendly or natural dyes and minimal chemical treatments are preferable to maintain biodegradability.



# RECYCLABILITY

Encourage the reuse and recycling of garments and accessories by designing with disassembly in mind.

- Choose mono-materials or easily separable materials to simplify the recycling process.
- Opt for natural or low-impact dyes and finishes that don't interfere with the recyclability of textiles.
- Incorporate design features that allow for easy removal of non-textile components, such as buttons, zippers, and embellishments.

This principle is rooted in the design philosophy that considers the next life of a garment.

By designing with disassembly and material recovery in mind, we can ensure that once a piece of clothing has served its purpose, it can be dismantled and its components can be repurposed or transformed into new textiles.



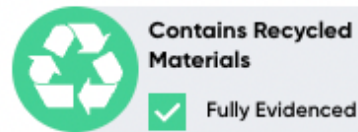


# TRACEABILITY

Implement traceability measures to offer full disclosure on the origins, materials, and manufacturing processes.



**Lyfcycle Ltd**  
**Angus Grey Jacket**



### What does it mean?

Awaiting Evidence No suppliers in the supply chain have uploaded evidence to support this claim

Evidenced One or more of the suppliers in the supply chain have uploaded evidence to support this claim

Fully Evidenced All of the suppliers in the supply chain have uploaded evidence to support this claim

### Composition

65% RECYCLED POLYESTER / 35% VISCOSE / LINING: 100% RECYCLED POLYESTER

## Transparency

Consumers are becoming ever more concerned with the environmental & social impacts of their behaviours. Adopt a transparent approach and build brand trust.

Prioritise long-term working relationships with suppliers that value openness and transparency.

## Assurance

Use internationally recognised standards & certifications to provide assurance on the origins and authenticity of raw materials.

Use audits for more assurance on ethical working conditions and compliance with standards.

## Technology

Go a step further and adopt advanced textile traceability solutions like ettos to support your traceability goals.

Generate unique QR codes and share your products journey from fibre to store via an interactive map.



# NEUTRALITY

Prioritise materials and processes that minimise carbon emissions throughout the garment's lifecycle.

This principle commits to materials and processes that minimise greenhouse gas emissions throughout the garment's lifecycle. It challenges designers and manufacturers to think creatively about reducing their carbon footprint, from utilising sustainable raw materials to embracing renewable energy sources.



# CIRCULARITY

Incorporate materials that can be perpetually recycled into new textiles or other products & support closed-loop systems within the industry.

## Waste as a Resource

By harnessing consumer and industrial waste, designers and manufacturers can transform discarded materials into valuable inputs for new garments. & reduce requirements on new raw materials.

Embracing waste as a resource encourages a shift towards more sustainable production methods.

## Recyclability

Circularity starts at product conception and it's essential to design with the end in mind.

Make sensible material choices to ensure garments can be recycled at the end of their life.

## Closed-Loop

Provide ways for customers to recycle & extend the lifecycle of old textile products.

Promote repair & recycling schemes, facilitate donations to charities & encourage re-sale of second hand items.



# GREEN ALCHEMY

Adopt chemical processes that reduce or eliminate the use and generation of hazardous substances.

This principle is about pioneering a new standard in fashion production, one that harmonises the art of textile creation with the science of sustainable practice. It is a call to action for the industry to innovate and find ways to achieve the desired aesthetic and functional outcomes while being stewards of the environment.

- Work with suppliers that prioritise non-hazardous chemicals
- Explore plant-based dyes which are completely natural, non-toxic and biodegradable
- Promote the use of water-based and plant-based inks that are free from harmful solvents
- Explore less harmful solutions where traditional chemical finishes are involved, for example for providing water repellency.





# ECO-ACCESSORY

Ensure packaging and accessories are designed with sustainability in mind, using recycled, recyclable and compostable materials.

This principle places the onus on brands to ensure these components are designed with the same sustainability ethos as the garments themselves.

By using recyclable or compostable materials for these ancillary items, we can significantly reduce the environmental impact and elevate the overall sustainability of the fashion industry.



## Labelling

Minimise ticketing where possible & use recycled or organic alternatives to conventional materials.

## Circular Packaging

Minimise unnecessary packaging and adopt packaging that can be easily recycled in regular waste streams.

## Everything Considered

Consider more sustainable alternatives to every component in the garment.



# CONCLUSION

In creating this Circular Design Guide we've laid the foundation for a consistent and methodical approach to sustainable apparel development.



With this guide in hand, you're empowered to craft clothing for the future.

As we move forward, remember that this guide is a living document. It should adapt as our understanding of regenerative fashion continues to evolve and as new technologies emerge.

Thank you for your dedication to our brand's vision, and let's continue to create a brighter future for fashion together.