

# IKEA Circular Product Design Guide

Version 2024

Guide to designing products with circular capabilities



## How to use this guide

This guide is intended to provide guiding principles for developing products with circular capabilities. This will enable IKEA to harness the opportunities a circular economy offers us and our customers.



## What is a circular economy?

The circular economy is a system where materials never become waste and nature is regenerated. In a circular economy, products and materials are kept in circulation through processes like reuse, refurbishment, remanufacturing and recycling.

The circular economy tackles climate change and other global challenges, like biodiversity loss, waste, and pollution, by decoupling economic activity from the consumption of finite resources.



## Circularity through the eyes of customers

Customer behaviors are changing and there is a growing awareness of the impact we have on the planet. People are increasingly moving into smaller spaces and have fewer things that they value more. Universally, no one wants to be wasteful, but people also struggle to pass on things they think still have value.

Studies\* show that consumers are interested in buying products made with recycled materials and avoiding disposable items, but they implicitly associate these actions with relative difficulty.

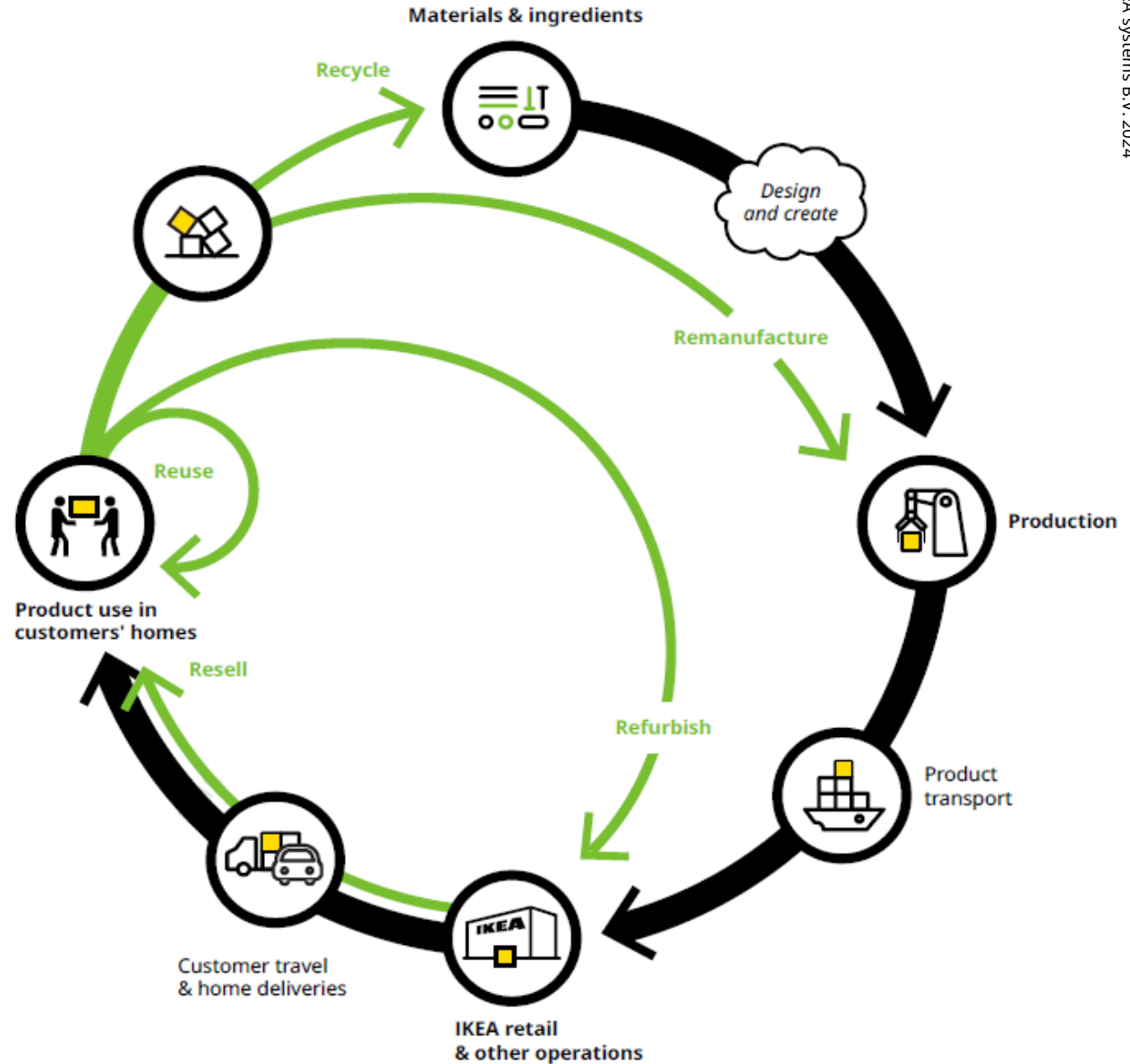
We at IKEA can help to make this easier by designing products with circularity in mind and offering products and services that make it possible and easier to reuse, refurbish, remanufacture and recycle.

# Circular Loops

Enabling circular loops is how IKEA will transition towards a circular business, impacting all aspects of our business from how and where we meet our customers to how and what products and services we develop, how and what materials we source, and how we develop the IKEA supply chain.

The circular loops describe how we define **reuse, refurbishment, remanufacturing, and recycling** as a means to retain as much value as possible and extend the life of resources, products, parts and materials for our customers and IKEA.

Designing products with circular capabilities helps ensure they can move through the circular loops.



## Reuse

Once customers acquire a product, the product enters the first circular loop of reuse. Reuse is how we describe the customer use of the product and includes all aspects of everyday product use and care in the customer's home, such as maintaining, repairing or upgrading its condition and adapting it to the evolving needs of life. This also includes passing on of products and enabling secondhand markets.

## Refurbishment

Refurbishment is the process by which used or damaged products are restored to 'like-new' condition with limited improvements by IKEA or a third party outside the customer's home. Through refurbishment products are evaluated, cleaned and/or repaired, can be upgraded, recertified, and eventually released back into the market.

## Remanufacturing

Remanufacturing is the process by which usable parts from dismantled products are utilized in production of new products.

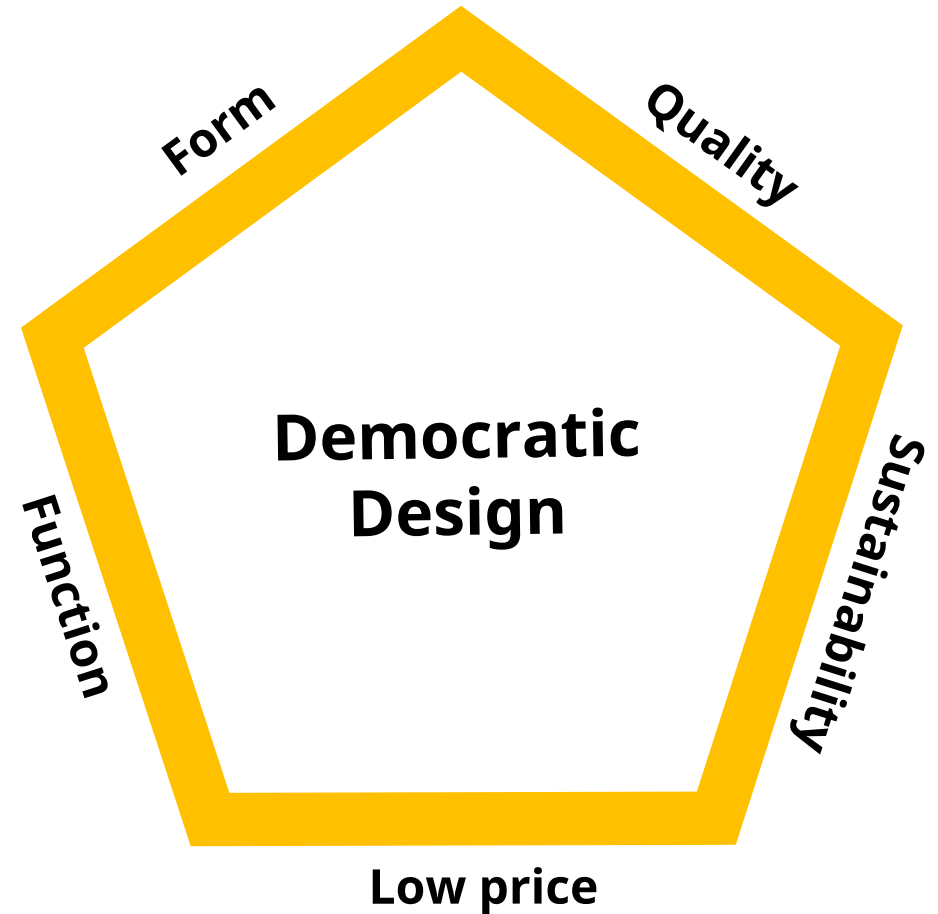
## Recycling

Recycling is the process by which parts from products are transformed into new raw material, which can then be utilized within IKEA or external supply chains. This is the last step for every product part. The pre-requisite for a product part to reach this stage in its life cycle is that all relevant possibilities to go through the reuse, refurbishment, and remanufacturing loops have been considered.

# Circularity and Democratic Design

Democratic Design is at the heart of every IKEA product. It's our approach for designing, developing and evaluating IKEA products to ensure that they integrate good function, beautiful form and long-lasting quality, while also securing sustainability and low prices.

Circular design principles are one of several ingredients in the sustainability dimension of Democratic Design. They ensure that we design for the intended use of the product, while also planning for how the product lifespan can be extended.



# No 'one-size-fits-all' recipe for circular product design

We use circular design principles to better understand and describe what aspects to consider to develop products with circular capabilities.

Not all products have the same possibilities for reuse, refurbishment, remanufacturing or recycling. Thus, there is no 'one-size-fits-all' recipe for circular product design. The applicability of different circular design principles for a particular product is determined by the product type, expected lifespan and circular flows of the product, and the material mix.

It is the combination of different circular product design principles that together create a built-in possibility for all products to last as long as possible and eventually become a resource for new products.

# Circular design principles



**Design for renewable or recycled materials**



**Design for standardization**



**Design for care**



**Design for repair**



**Design for adaptability**



**Design for disassembly and reassembly**



**Design for remanufacturing**



**Design for recyclability**

# Design for renewable or recycled materials

## *Using renewable or recycled materials.*

In a world of limited resources, we want to use materials that are already in use (recycled) or that can be regenerated (renewable).

With this we aim to end dependency on virgin fossil-based materials and their negative consequences for people and planet. Using renewable and recycled materials also helps prevent future material scarcity.



# Design for standardization

***Reducing variation of materials, components, dimensions and other aspects.***

Reducing variation increases the compatibility between different products, components and materials, thereby enabling more efficient care, repair, upgradability, refurbishment, remanufacturing, and eventually recycling.

Using standardized dimensions, platforms, fittings, colors and materials creates possibilities for modularity and exchange and repair of parts, and also limits the number of spare parts needed.



# Design for care

***Making products that are easy to live with over time, enabling customers to keep products in good condition through care and maintenance.***

Providing the possibility and knowledge for how to care for and maintain a product's quality, functional performance and appearance enables customers to keep the product for longer.

Thinking about how a product will be used in daily life can help anticipate potential care and maintenance needs. Designing products that are easy to care for and providing care instructions can minimize potential wear and tear and inform customers how to use and maintain the product in the correct way.

In addition, products for care and maintenance can be developed and made easily available to customers.



# Design for repair

***Making products that are easy to repair when something goes wrong.***

Accidents happen, and sometimes a product is used so much that it breaks or wears out. Making it possible to repair the product's function and appearance means that breakage or wear does not have to be the end of the product's usefulness.

Understanding the daily use of a product can help identify potential risks for breakage or wear. Identified parts can be designed to last as long as possible and can also be made available as spare parts.

Offering convenient repair solutions such as repair kits and related services also makes it easy for customers to repair products.



# Design for adaptability

***Designing products that can fulfil evolving customer needs.***

For a product to stay in use for as long as possible, it needs to be able to adapt to people's changing life situations and needs.

Designing products in ways that parts can be added, removed or changed allows customers to change the style, form or function of a product rather than replacing the product when their lives or needs change. This could include altering products through modular design, customizing surfaces, changing fabrics, specifying function, and more.



# Design for disassembly and reassembly

***Making products easy to disassemble and reassemble.***

Designing products so they are easy to disassemble and reassemble makes reuse, repair, refurbishment and remanufacturing faster and more efficient.

Hassle-free disassembly and reassembly enables customers to move products from one place to another without the risk of breaking them.

It also makes it easier to replace parts if something breaks, or to remove, add or change parts when wanting to adapt, update, refurbish or remanufacture the product.

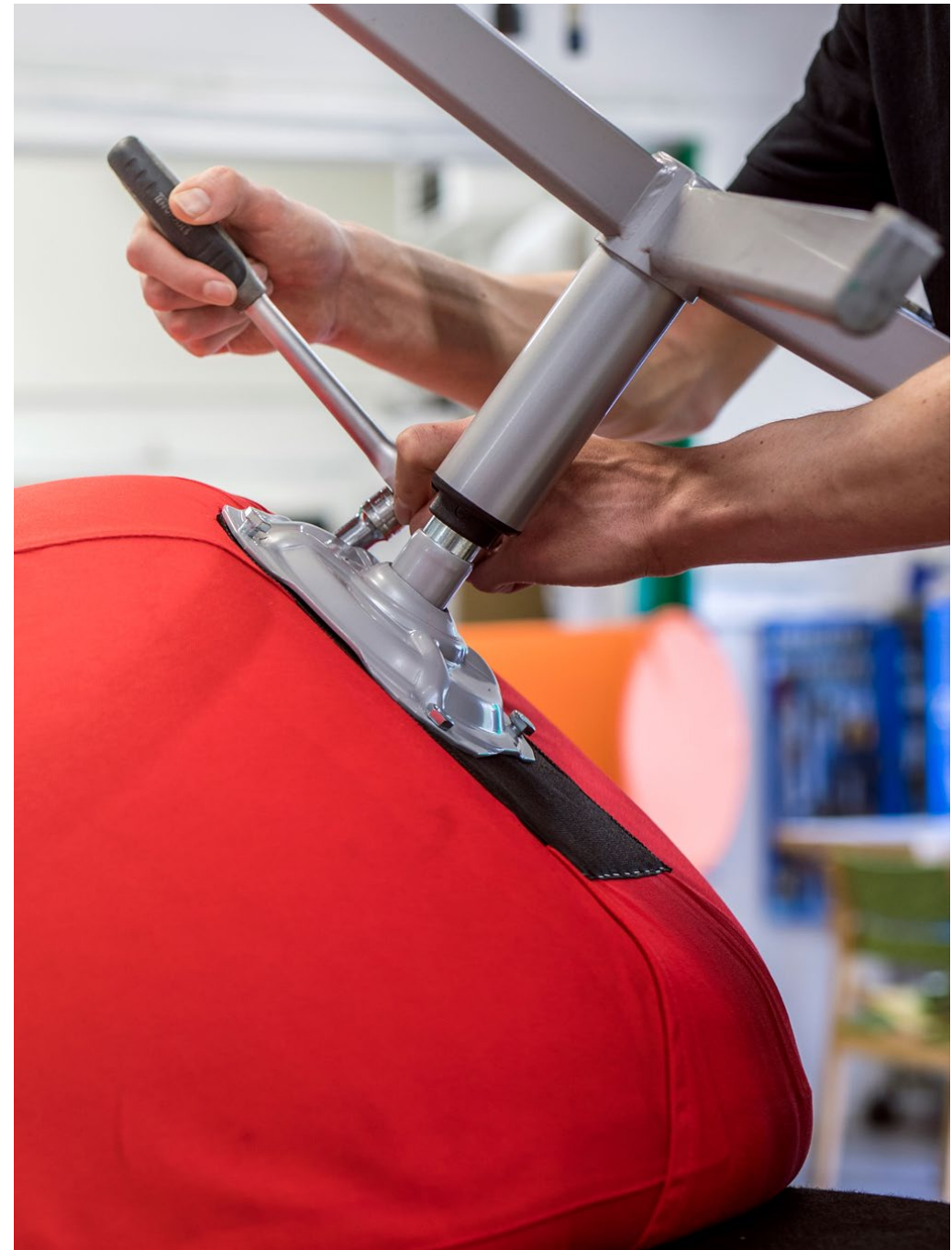


# Design for remanufacturing

***Designing products that contain parts that can easily be reused in other products.***

In a world of limited resources, our products play an important role in becoming the resources for the future.

Designing for remanufacturing means considering if parts can be reused in new products in the future. Reusing parts in this way increases resource recovery and can potentially lower the cost of the final product.

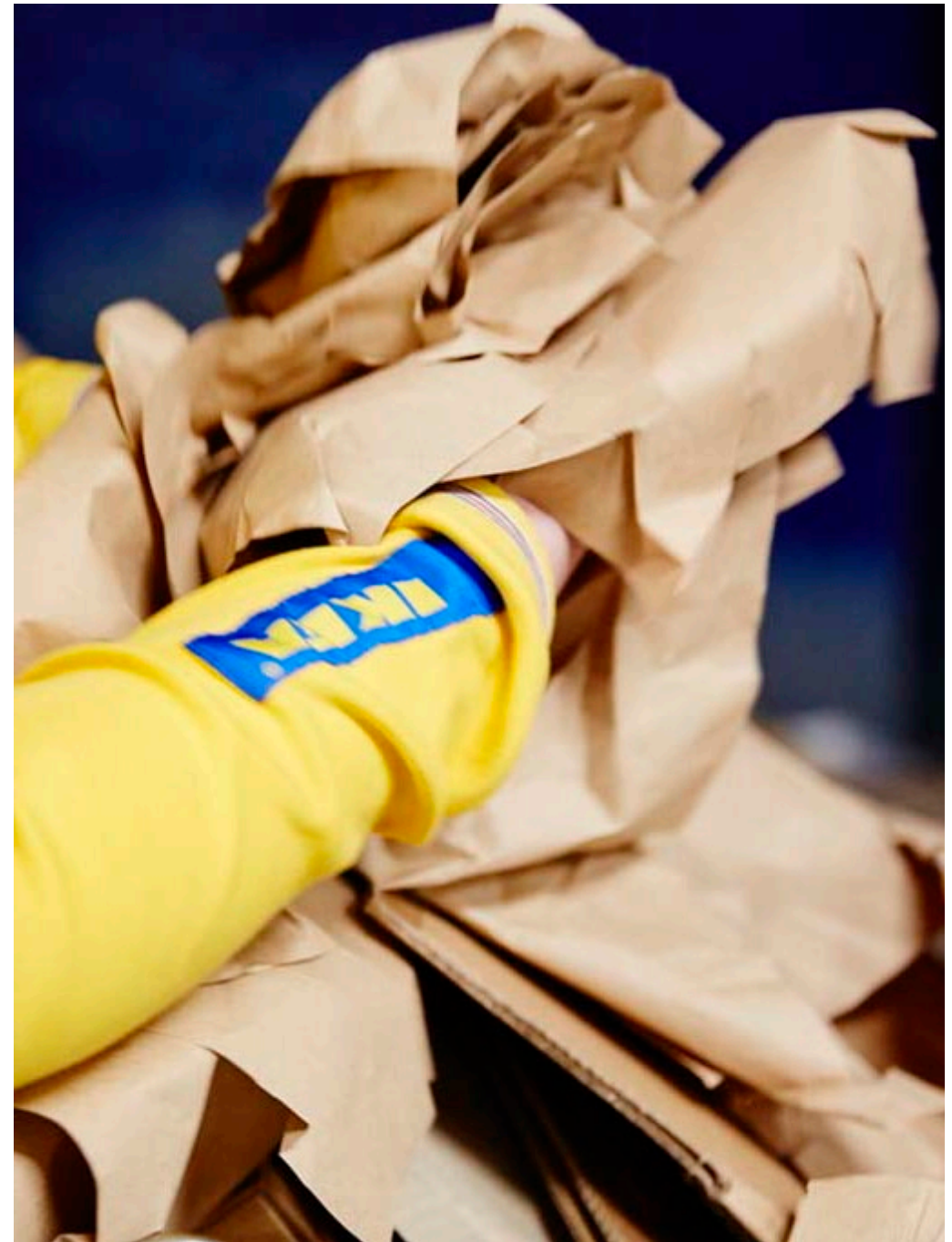


# Design for recyclability

***Choosing materials and how they are combined to enable recycling at end of life.***

Products today are our material banks for the future. Recycling should be the last resort, but when products can no longer be used the materials should be easy to recycle into new materials that can be used again.

Minimizing the number of different materials used in a product and ensuring that these materials are both technically possible to recycle and combined in ways that they can be easily separated increases the possibility that products can be recycled at end of life.



# #CircularIKEA

**Together, we make a difference.**

