

CIRCULAR BUSINESS MODELS GUIDE



RESEARCH ON :

- EXISTING BUSINESS MODELS
- CIRCULAR ECONOMY MODELS
- BUSINESS MODEL TOOLS

Visit the Interreg / CEO Website 

Producers, retailers, office managers we all must turn to the circular economy!

CEO brings together 13 partners from 6 countries. The consortium is led by **HiiCCE Hamburg Institute for Innovation, Climate Protection and Circular Economy GmbH**.

The partners are categorized as follows:

Local municipalities and public organizations:

Municipality of Copenhagen, Communauté de Communes Pévèle Carembault, City of Utrecht, City of Malmö, and Development Agency Oost-Nederland.

These partners will implement circular office pilots throughout the North Sea Region (NSR), testing concepts and exchanging knowledge on specific challenges. Their diverse maturity levels enable mutual learning and growth.

Expert partners and consultancies:

Public Waste Agency of Flanders/Circular Flanders contributes extensive knowledge on circularity, procurement, and Circular Business Models (CBM).

INDEED Innovation is an expert in system mapping and includes human behavior components and stakeholder mapping in their approach. **WOOD.BE** and **Institut Technologique Forêt Cellulose Bois-construction Ameublement** are experts in the wood and furniture industry, providing insights into circular design and its application in the conception and redesign of circular offices. They collaborate closely with local SMEs.

Suppliers of office equipment and SMEs in the furniture industry:

De Kringwinkel Antwerp has insights into the second-hand furniture industry and expertise in furniture refurbishment. They collaborate with **ONBETAALBAAR**, circular design experts.

Our partner **Enschede Textielstad Innovatie** specializes in producing circular textile fibers suitable for office environments. Their expertise is applied in various pilot activities of the CEO project, starting with the pilot in the East of the Netherlands.

Collectively, the consortium partners possess comprehensive knowledge, expertise and influence across the entire value chain of office furniture in the European North Sea region.



CIRCULAR ECONOMY OFFICE

Introduction and context

CONTEXT OF THE OFFICE FURNITURE SECTOR IN THE EUROPEAN UNION

The office furniture sector is still dominated by the traditional linear model in which the industry manufactures and sells products that will be discarded at their end-of-life. **The discarded office furniture in the EU represents 10.5 millions of tons per year, of which 80 to 90% are incinerated or landfilled.** This leads to unnecessary material waste and CO₂ emissions. At the opposite of the linear model, circular economy is emerging and growing to keep the product value high for as long as possible and reduce raw material extraction.

The **2020 EU Circular Economy Action Plan** paves the way to legislate in the Member States on circular measurements.

At national level, the French AGECE law includes in Public Procurement criteria a minimum of 20% of circular purchases for office furniture.

At the same time, the work environment is undergoing rapid change due to digitalization and globalization — a shift that was further accelerated by the COVID-19 pandemic. **New demands have emerged for remote, flexible, and hybrid ways of working.** As a result, workspaces are evolving to meet these needs, often becoming oversized when part of the workforce operates remotely. There is a growing need to establish a clear connection between sustainable office furniture management and the changing demands of the modern work environment.

THE CEO PROJECT

The CEO (Circular Economy Office) project aims to establish this link to accelerate the office furniture sector's advancement towards an innovative, resource efficient and circular economy through transnational cooperation in the North-Sea Region. By moving to scale, improving legal framework, introducing modularity and adaptability in product design, the lifetime of products is extended and waste reduced. **CEO encourages public and private stakeholders along the value chain to foster the circular economy mindset and build sustainable practices, products and solutions.** CEO implements 7 pilots that develop different aspects of the system approach to circular office furniture, e.g. procurement, skills and training, new working principles, digital tools, circular textiles, furnish a new office and circular business models. The aim is to move existing ideas to scale, test innovative approaches, facilitate sustainable transformation and uptake of the sector including a legal framework while ensuring flexibility, climate protection and establishing territorial connections.

OBJECTIVE OF THIS GUIDE

In the framework of the CEO project, this guide of recommendations for Circular Business Models has been produced to raise awareness in the furniture value chain and help the actors implement circular economy approaches that effectively reduce waste and lengthen the lifetime of products and their value.

In addition to the circular business model principles and examples, several complementary axes are covered:

- classification of circular business models
- embracing digitalisation and data-driven solutions
- circular business model tools
- barriers and opportunities
- upscaling

TRANSFORMING THE OFFICE FURNITURE INDUSTRY FOR THE NEW WAY OF WORKING

In today's rapidly evolving business landscape, companies are increasingly embracing sustainability and circularity as integral components of their operations. This shift is still a challenge at a large scale in the furniture industry, where traditional linear models of production and consumption are being replaced by circular business models. This guide aims to explore the concept of circularity within the context of office furniture, with a focus on how it aligns with the emerging trends in the way we work.

Circular business models are centered around the idea of maximizing the value of resources and minimizing waste by keeping products and materials in use for as long as possible. This involves designing products for **durability**, **reuse**, and **recycling**, as well as implementing strategies for extending product lifecycles through **repair**, **refurbishment**, and **remanufacturing**.

Target audience of this guide:



Furniture designers: be inspired, understand environmental constraints as a source of creativity, address issues in a preventive approach.



Furniture brands: rethink a product offering, look ahead to the products and services of tomorrow, define a strategy.



Furniture manufacturers: identify new solutions, adopt a preventive approach to meet the challenges of waste and environmental impacts.



Interior architects: be inspired, reconsider the workspace in terms of circularity, innovate and dare to mix new with used and refurbished.



Public procurement: understand the importance of circularity, adopt a strategy for circular public procurements.

This guide, which presents circular business models guidelines for office furniture, is first and foremost an awareness-raising tool.

While the recommendations put forward are of potential environmental and circular interest, their relevance cannot be guaranteed. The circular benefits of these actions (e.g. waste reduction, lifetime extension,...), depends on the specific context of the product and the company implementing them.



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1.

BUSINESS MODEL DESIGN



1.1. TOWARDS A CIRCULAR BUSINESS MODEL

Before treating the circular business models, we need to look at their evolution. First we have a look at the existing (linear) business models and their circular potential. Then we treat the evolution from a sustainable to a circular business model, and the difference between these two.

Business model design is a critical aspect of shaping a company's success.

A business model outlines how a company intends to create value or generate profits from its products and services.

It encompasses various elements, including the value proposition, marketing strategies, operational processes, target audience, offers, organizational structure, and expenses.

There is a difference between crafting a new business model when none is in place, as it is often the case with academic spinoffs and high technology entrepreneurship, and changing an existing business model, such as when a company shifts from selling its tools to a leasing model.

Everybody knows the **business model canvas** developed by A. Osterwalder, Yves Pigneur, Alan Smith, and 470 practitioners from 45 countries. The business model canvas is one of the most used frameworks for describing the elements of business models. Formal descriptions of the business become the foundation blocks for its activities. There are many ways to conceptualize business models; Osterwalder suggests a single reference model based on the similarities of a wide range of business model conceptualizations. A company can quickly and easily articulate its business model by using its business model design template.

As background literature, the complete thesis of Alexander Osterwalder can be found here:

www.academia.edu/2329736/The_Business_Model_Ontology_a_proposition_in_a_design_science_approach

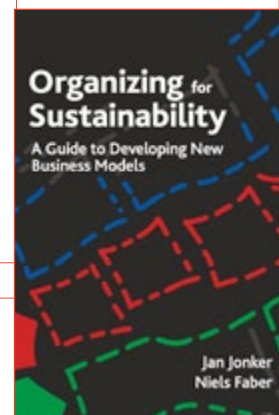
The Business Model Canvas can be printed out on a large surface so groups of people can jointly start sketching and discussing business model elements with post-it notes or board markers. It is a hands-on tool that fosters understanding, discussion, creativity, and analysis.



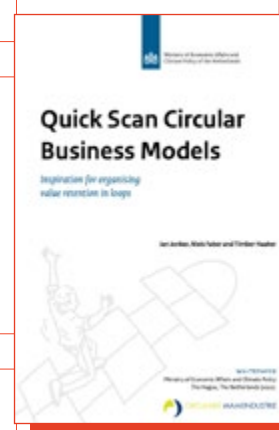
The Business Model Canvas by the Ellen MacArthur Foundation with questions adapted to the circular economy www.ellenmacarthurfoundation.org/circular-business-model adapted from

Strategyzer


www.strategyzer.com/library/the-business-model-canvas



Jan Jonker and Niels Faber wrote this interesting guide on developing new circular business models: [Jonker_and_Faber_2021_Organizing_for_Sustainability_A_Guide_to_Developing_New_Business_Models.pdf](https://www.ellenmacarthurfoundation.org/sites/default/files/2021-09/Organizing_for_Sustainability_A_Guide_to_Developing_New_Business_Models.pdf)



About the quick scan by Jan Jonker: www.circulareconomy.europa.eu/platform/sites/default/files/quick-scan-circular-business-models_ebook.pdf

Find a detailed description and examples in the Annex of this guideline. 

1.2. GRID OF ANALYSIS

NO	NAME	DESCRIPTION	CIRCULAR VALUE (POTENTIAL)
1	affiliate	Monetizing content through discreet links, benefiting both content creators and the affiliated companies	The same principle, but specialized in circular solutions
2	brokerage	Connecting buyers and sellers and help facilitate a transaction by charging a fee	The same principle, but specialized in circular solutions, while taking up a role in the whole value chain; connecting material/product users and providers to stimulate reuse
3	concierge customisation	Adding a custom element to existing products or services and/or the transaction that makes every sale unique for the given customer	Same system but with eco-products and services that support circularity
4	crowdsourcing	Getting a large group of people to contribute to your project or business.	Problem-solving: share a problem for a win-win solution. Engage the crowd while building a profitable business, but in the interest of the environmental transition, therefore in the common interest.
5	disintermediation	Sidestep everyone in the supply chain and sell directly to consumers	E.g. the second hand market, and brands that offer product and associated services directly to consumers
6	fractionalisation	Selling just part of that product with a fractionalization business model	Several companies share the purchase of an office space, a machine or a service to be shared afterwards?
7	franchising	Selling access to a successful business model that you've developed	The same principle, but specialized in circular products or services
8	freemium	Giving away part of your product or service for free and charging for premium features or services.	The same principle, but specialized in circular solutions,
9	leasing	Fractionalisation, but customers return the product at the end of the lease agreement	Selling the use and not the ownership allows us to produce less and support the longevity of the products. This models will also stimulate qualitative design to assure the longevity of the products.
10	low-touch	Offering fewer services to reduce costs	Ikea case: Involving the user in the assembly of a product also educates him about disassembly for repair or at the end of its life
11	marketplace	Marketplaces allow sellers to list items for sale and provide customers with easy tools for connecting to sellers.	Model that supports the resale of used products
12	pay as you go	Instead of pre-purchasing a certain amount of something, such as electricity or cell phone minutes, customers get charged for actual use at the end of a billing period	Can be used for circular solutions, where only the used part is paid for, for example when renting.
13	razor blade	Companies sell a durable product at a low cost to boost sales of a high-margin, disposable component	A model that supports the longevity of a product, the standardization of components, and the involvement of users in considering the disassembling of a product
14	reverse razor blade	Offer a high-margin product and promote sales of a low-margin companion product.	This model supports the longevity of the product
15	reverse auction	Sellers present their lowest prices to buyers, buyers have the option to choose the lowest price presented to them	nothing
16	subscription	Consumers get charged a subscription fee to get access to a service	attractive model for the sale of services and to combine with leasing
17	cooperative	The cooperative model creates shared prosperity, allowing more people to participate in the economy	consumer engagement can be in favor of safeguarding products, selling local products, proposing an alternative system to the widespread capitalism

2.

FROM SUSTAINABLE TO CIRCULAR



FROM SUSTAINABLE TO CIRCULAR

Before talking about circular business models, we will see where these circular business models are coming from. Inspired by the sustainable business model archetypes by Bocken, we identified key principles who draw the path for circular business models.

A sustainable business model is 'a business model that creates competitive advantage through superior customer value and contributes to a sustainable development of the company and society' (Lüdeke-Freund - 2010).

Sustainable business models use both a systems and firm-level perspective, build on the **triple bottom line approach (People – planet – profit)** to define the firm's purpose and measure performance, include a wide range of stakeholders, and consider the **environment and society as stakeholders**.

Extending this, a sustainable business model aligns interests of all stakeholder groups, and explicitly considers the environment and society as key stakeholders. Business model innovations for sustainability are defined as: Innovations that create significant positive and/or significantly reduced negative impacts for the environment and/or society, through changes in the way the organisation and its value-network create, deliver value and capture value (i.e. create economic value) or change their value propositions.

The level of ambition of business model innovations needs to be high and focused on maximizing societal and environmental benefits, rather than economic gain only.

One of the key challenges is designing business models in such a way that enables the firm to capture economic value for itself through delivering social and environmental benefits. While efficiency and quality improvements of the past may have readily translated into profits, **it is not always so clear how delivering social and environmental value might translate into profit and competitive advantage for the firm.**

Sustainable business model archetypes are introduced by Bocken to describe groupings of mechanisms and solutions that may contribute to building up the business model for sustainability. The aim of these archetypes is to develop a common language that can be used to accelerate the development of sustainable

business models in research and practice. They can be organized according to 8 archetypes. The first one is **maximizing material and energy efficiency**. It's a fairly obvious concepts in today's economy to do more with fewer resources, and to generate less waste, pollution and emissions. It is not only economically interesting, but also socially and environmentally beneficial. A good example of this concept is lean manufacturing, where waste is minimized in production processes.

Waste-to-value models are another archetype, where waste is valorized. The waste can come from the company's own production, from another company's production, or from the end consumer. When manufacturing products, **substituting resources with renewables** is another sustainable business model archetype. This substitution can be done on material level (what the product is made of), on the production energy level, and on the level of resources used for the production of the product (e.g. chemicals). Another archetype is the **product as a service: deliver functionality rather than ownership**. The product (and the ownership) in itself is not sold, but the use of it is provided to the client. This ensures the ownership of the company that also provides maintenance and repair services to prolong the product's lifespan. Businesses can also **adopt a stewardship role**. They engage actively with all stakeholders to ensure their long-term health and well-being. Businesses that **encourage sufficiency** actively seek solutions to reduce consumption and production, for example by making long-lasting products. **Re-purposing the business for society/environment** means prioritizing delivery of social and environmental benefits rather than economic profit (i.e. shareholder value) maximisation, through close integration between the firm and local communities and other stakeholder groups. The traditional business model where the customer is the primary beneficiary may shift. The last archetype is the **development of scale-up options**, where sustainable solutions are delivered at a large scale to maximise benefits for society and the environment.

Using Bocken's archetypes as a starting point, we try to identify the key concepts that form the outline of a circular model. This will be discussed in the next chapter.

KEY PRINCIPLES FOR SUSTAINABLE BUSINESS MODELS

A SUSTAINABLE BUSINESS MODEL

creates competitive advantage through superior customer value and contributes to sustainable development

SYSTEMS
THINKING

TRIPLE
BOTTOM LINE

STAKEHOLDER
ALIGNMENT

BUSINESS MODEL
INNOVATION

SUSTAINABLE BUSINESS MODEL ARCHETYPES

MAXIMIZE MATERIAL AND
ENERGY EFFICIENCY

CREATE VALUE
FROM WASTE

SUBSTITUTE
WITH RENEWABLES

DELIVER FUNCTIONALITY,
NOT OWNERSHIP

ADOPT A
STEWARDSHIP ROLE

ENCOURAGE
SUFFICIENCY

RE-PURPOSE FOR
SOCIETY/ ENVIRONMENT

DEVELOP SCALE-UP
SOLUTIONS

Circular Economy Butterfly Model by Ellen McArthur:

An industrial system that is restorative by design

Before introducing circular business models, a short overview of the main principles of the circular economy is welcome. As Jonker, Faber and Haaker (2021) state, **the core principle of the circular economy is the systematic organization of value retention in loops of materials, components and products.**

Traditional business models (linear) operate in a take, make, use and throwaway/discard model.

Circular business models are different in their thinking in a couple of ways: firstly, what happens to a product at its end of life? And how does their 'circularity' work?

The Circular Economy aims to radically minimise the extraction of raw materials and reduce waste. It achieves this by continually recovering and reusing products and materials in a systematic cycle, repeatedly. The Circular Economy is essentially an economy based on the principles of "make/remake – use/reuse".

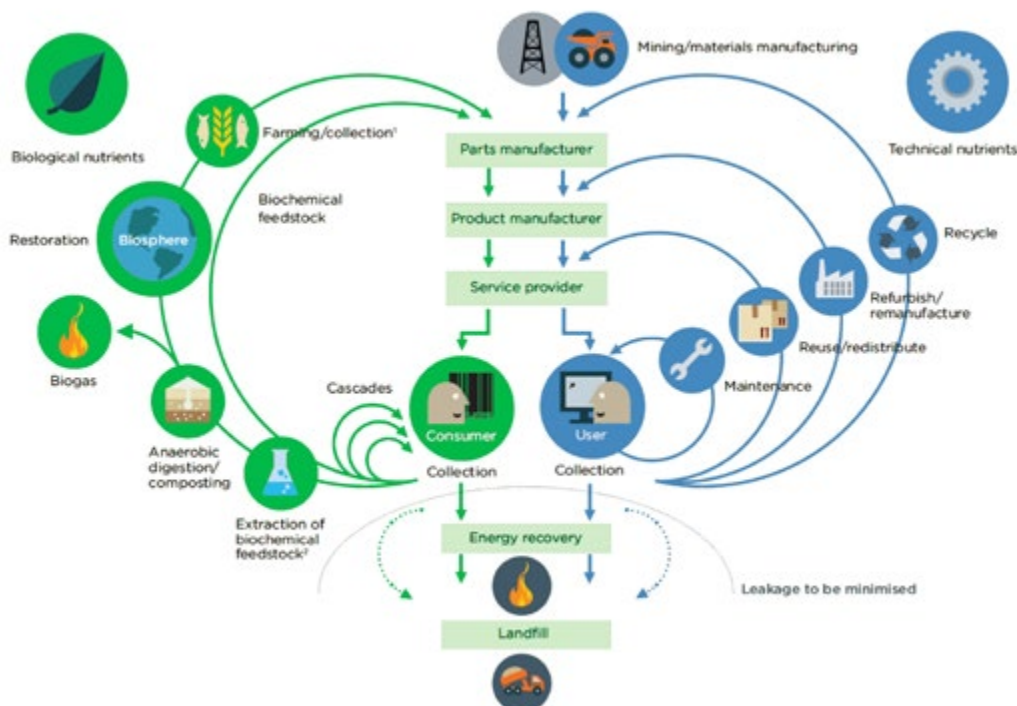
The Butterfly Diagram developed by the Ellen MacArthur Foundation is a key reference for illustrating how the consumption flow of raw materials can be optimized.

It shows the circular flow of these materials in two loops: green for biological and blue for technical nutrients.

Biological materials can be safely returned to the biosphere and add value to the environment, once they have gone through one or more use cycles. These materials include food, natural fibres and bio-based materials, such as wood.

Technical materials cannot be returned to the biosphere. These materials should continuously cycle through the system so that their value can be (re)captured. These materials include plastics, metals and synthetic chemicals.

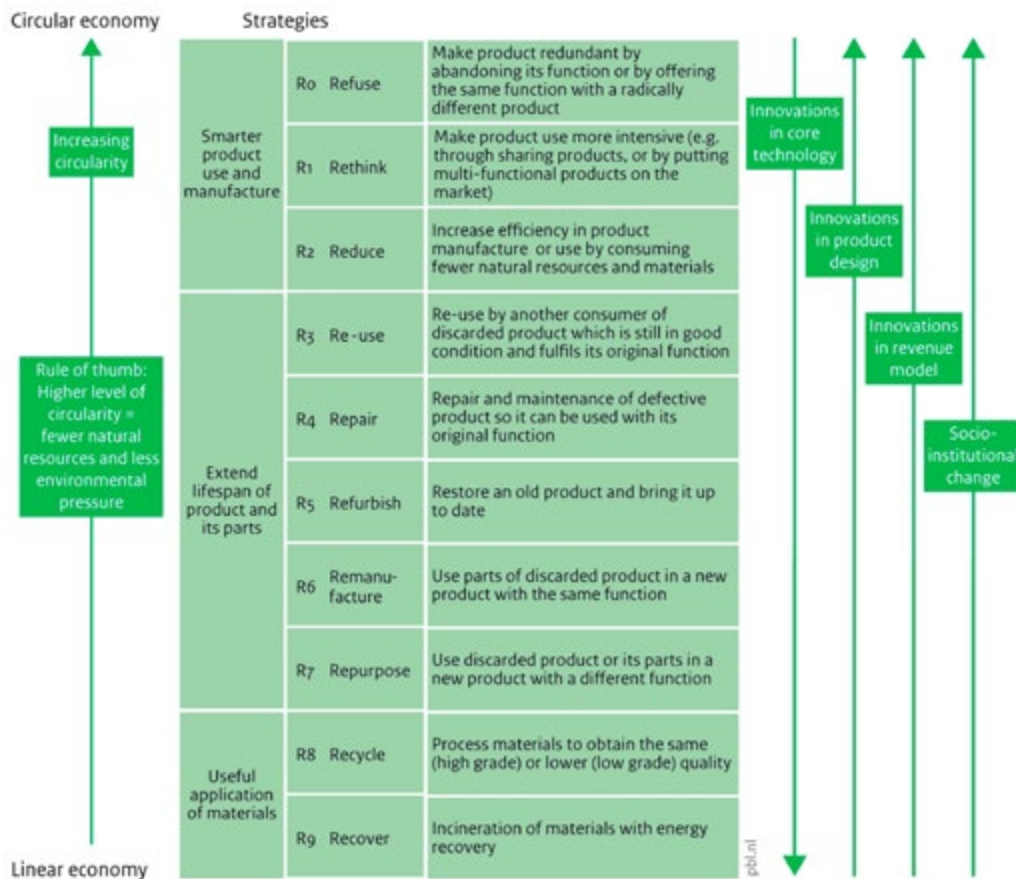
The diagram shows how products and components should remain in circulation for as long as possible, with the emphasis on maintaining value rather than recycling large volumes. The smallest circles in the diagram focus on repair and maintenance and are the most important. The circles should be as small as possible to make the most of the value of the products/resources: the smaller the loop, the greater the profitability of the overall system.



The Ellen McArthur Foundation has highlighted that the circular economy could unlock \$4.5 billion in economic value by 2030. Savings on material costs, coupled with the creation of new revenue streams, can boost business profitability.

Circular Strategies within the Production Chain in Order and Priority

The 10Rs model presents a fairly exhaustive range of what can be put in place, while prioritising different behaviours according to the impact they have on our ecological footprint. These 10Rs are very often associated with the “Lansink scale”.



www.pbl.nl

LINEAR VS. CIRCULAR

2.1 PRINCIPLES OF CIRCULAR BUSINESS MODELS

The most known author on CBM is Jan Jonker, he explains the characteristics of CBM in his quick scan: When is a business model circular? There are several important characteristics. They are not mutually exclusive, but can be valid at the same time:

- There is horizontal and vertical chain integration (e.g. the use of one's own waste in new packaging).
- The ambition to organise one or more loops (as a company or in a cluster of companies and organisations and networks).
- Strategically the aim is to reduce impact compared to the linear alternatives.
- Organising is shaped in such a way as to preserve the value of both raw and processed materials, components, and products and to use them over and over again in multiple loops.
- There are often different forms of servitisation (product-as-a-service) giving way to use various revenue models

source: www.circulareconomy.europa.eu

(See Annex 2 for other definitions)

Circular economy business models are providing ample opportunities for companies to capture additional value from their products and materials, and mitigate risks from material price fluctuations and material supply.

A business can be fully circular or can operate as part of a multi-business circular model.

If a company wants to be successful in applying Circular Economy concepts, **they need to create business value.**

How to create this value?

In the TU Delft MOOC "Circular economy, an introduction", Prof. David Peck talks about 4 ways to create value in a circular economy:

Sourcing value:

Sourcing value refers to the various ways companies can directly reduce costs and save money through closed-loop business practices. Here's how it works:

1. **Creating new markets:** companies can explore new markets by offering refurbished products or using recycled materials. This expands their market share and increases revenue.
2. **Cost reduction:** by accessing cheaper resources or optimizing processes, companies can lower their operational costs.
3. **Risk reduction:** closed loops help mitigate risks associated with resource scarcity or price fluctuations.
4. **Negative externalities:** companies focus on minimizing negative impacts (such as waste or pollution) through sustainable practices.
5. **Profit generation:** forward-thinking companies realize that closing loops can actually be profitable. however, achieving this requires a complete rethink of the supply chain, not just adding an extra layer.

In summary, sourcing value involves both cost savings and revenue generation, but it demands strategic planning and supply chain transformation.

SOURCING VALUE

All types of direct cost reductions and savings that can arise from closed loop business practices

ENVIRONMENTAL VALUE

Benefits that result from improved ecological footprints, for instance: ease of compliance and improved green image.

CUSTOMER VALUE

Increased customer loyalty, better customer satisfaction and superior brand protection.

INFORMATIONAL VALUE

Closing the loop generates valuable data on production and supply problems, failure rates, useful lifetime of the product and usage patterns.

TU Delft MOOC "Circular economy, an introduction missing"

Environmental value

Environmental value has two main benefits resulting from improved sustainability practices:

1. **Ease of compliance:** companies find it easier to meet environmental regulations and standards when they adopt sustainable practices. Compliance becomes smoother.
2. **Improved green image:** by demonstrating their commitment to the environment, companies enhance their reputation. This positive image can attract environmentally conscious customers and stakeholders.

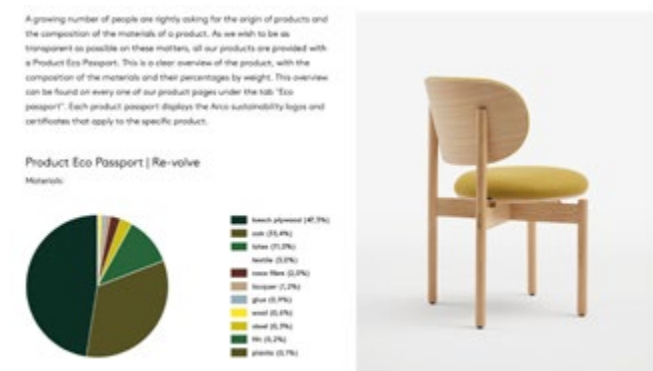
However, it's crucial for companies to communicate these efforts to their stakeholders.

Without effective communication, the environmental benefits remain hidden, and there's no tangible business value. When companies share their sustainability initiatives with customers, it can foster loyalty and trust.

ARPER, ARCO, STEELCASE

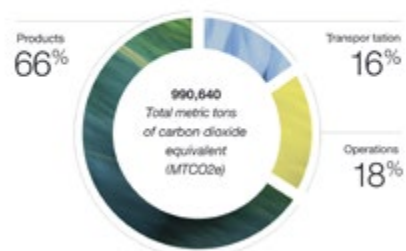


www.arper.com



www.arco.nl

Our Sources of Carbon Emissions
#103



www.steelcase.com

EXAMPLES

Customer value

Customer value refers to increase several key benefits:

3. **Increased customer loyalty:** when companies prioritize sustainability and offer services like easy product returns or exchanges, customers feel more connected to the brand. This loyalty encourages repeat business.
4. **Enhanced customer satisfaction:** by providing convenient options (such as returning products or choosing eco-friendly alternatives), companies improve overall customer satisfaction.
5. **Superior brand protection:** sustainable practices and transparent communication about them safeguard a company's reputation. Customers appreciate environmentally conscious brands.

Customer value creates a positive customer experience through sustainable services contributes to long-term loyalty and brand strength.

Informational value

Informational value refers to the valuable data obtained from a closed-loop system, which includes insights into production and supply issues, failure rates, product life-times, consumer feedback, and usage patterns. Here's how it works:

6. **Data acquisition:** In a closed-loop system, companies actively take back their products. This allows them to inspect items, assess wear and tear, and understand how customers use (or don't use) the products as intended.
7. **Improving processes:**
 - Product design: armed with this data, companies can redesign products to better meet customer needs.
 - Supply chain optimization: Insights inform supply chain processes, leading to efficiency improvements.
 - Marketing and Distribution: understanding why customers return products helps refine marketing and distribution strategies.

The data collected within a closed-loop system informs strategic decisions, enhances product design, and optimizes supply chains.

SOFAR

Customer reviews on the website of modular sofa brand Sofar.

Wat zeggen onze klanten?
Lees hieronder de verhalen van onze klanten en ontdek waarom ze zo tevreden zijn met onze modulaire en circulaire SOFARs!

Catherine Van den Broeck
★★★★★

Hoe heerlijk om elke avond in onze nieuwe zetels van SOFAR te ploffem! We, elk gezinslid dus, zijn helemaal weg van het duurzame aspect van de losmaakbaarheid van het product, van de stofkeuze, de kleurkeuze, zijn tijdloze karakter, zijn groeivermogen, lees de uitbreidbaarheid op middellange en lange termijn. We zijn zot op het 'op en top' Belgische korte katen verhaal, van de eerste stap in het productieproces, tot het uitkijken van transport en zo bij te dragen aan het verminderen van de CO2-impact. Doordat we de stoffen kunnen wassen, en de kussens kunnen bijvullen mocht het nodig zijn, dragen wij als gezin ons steentje bij aan het milieu. Wat dank aan de goeie raad en zorgen en eindeloze optimisme van het Sofar team!

Patrick Delva
★★★★★

Wij zijn heel tevreden over de SOFAR zetel. De uitvoering van de zetel voldoet volledig aan onze verwachtingen. Stof aangepast aan de kleuren van het interieur, strakte levering. Alleen positieve reacties van vrienden en bezoekers. TOP.

Leen Duyck
★★★★★

'De Zetelhangars', zo heet ons gezin whatsapp groepje. Om maar te zeggen hoe belangrijk een zetel voor ons is. Criteria voor onze nieuwe zetel: goed in kunnen zitten, hangen, zelfs liggen. De zetel moest er strak en tijdoos uitsien maar ook gezelligheid stralen, in heel wat zetels geploft, op zoek naar de ideale match. Tot we in de Sofar zetel zijn terechtgekomen en alles gewoonweg samenkwam. Met als supplement het circulaire verhaal wisten we dat we onze zetel hadden gevonden. We hebben de stof gekozen uit tal van stalen (dankzij advies van hie die er werkelijk alles over weet). Niet onbelangrijk de stof is makkelijk te onderhouden (met een kat die binnen en buiten leegt een absolute must voor een witte zetel). We kosen voor de S-zit hoekzetel om met 2 - kat gezellig bij mekaar te kunnen liggen. De zetel past goed in onze kleine woonkamer, dankzij de strakke hoeken.

www.sofar.club

EXAMPLE

2.2. SHIFTS IN BUSINESS MODEL ARCHITECTURE

Embracing circular economy principles involves rethinking every aspect of the business model and involves significant organizational and strategic changes. In order to transform the economy from linear to circular, business model and design strategies will need to go hand in hand. Potentially, we will need multiple business models and design strategies, approaches, methods, and tools to support the move to a circular economy. For example, the well-known domestic appliance company Miele shows a synergistic combination of business model strategies (sufficiency and classic long life) and product design strategies (product design for durability and design for upgradability). The German company is an example of “Classic Long Life” and “Encourage Sufficiency.” Miele produces high-quality washing machines which are an almost iconic example of “Classic Long Life” as a business model: their machines are guaranteed a functional lifespan of 20 years, where washing machines on average last some 10 years. In addition, Miele runs its own service company. Despite the economic recession, the company has refused to move down-market and compete on price. Miele has nearly all its manufacturing operations based in Germany and refuses to outsource to low-cost suppliers.

Let’s break down the key shifts within the business model architecture :

1. **Value creation:**
 - **Processes and materials:** products must be manufactured using specific processes and recycled and biobased materials; circular design minimizing the amount of materials. This requires specialized capabilities.
 - **Reverse logistics:** establishing reverse logistics systems ensures efficient material loops.
 - **Stakeholder relationships:** maintaining relationships with other companies and customers is crucial for successful material closure.
2. **Value proposition:**
 - **Circular products:** products should aim for reuse, recycling, or other circular strategies.
 - **Product-Service systems (PSS):** companies can transition to PSS models, selling performance related to serviced products, activities, and capabilities.
3. **Value delivery:**
 - **Customer habits:** selling circular products or services may require changing customer habits.
 - **Customer adaptation:** if habit changes are not feasible, companies may need to adapt their customer base.
4. **Value capture:**
 - **Product-based services:** shifting toward charging based on product use rather than ownership.

2.3. THE PRODUCT LIFETIME PERSPECTIVE

Product lifetime can be defined as the timespan between the moment a product starts being used after manufacture, ending when it becomes obsolete beyond recovery at product level. Using this perspective, circular business models can be classified according to their position on three distinct phases:

5. **Pre-Use Phase:**
 - **Value Retention:** Focuses on designing durable products with easily recoverable materials.
 - **Goal:** Maximize material reuse and reprocessing potential.
6. **Use Phase:**
 - **Value Prolongation:** Offers services to extend product lifetimes (e.g., repairs, maintenance).
 - **Strategy:** Optimize product usage (e.g., through sharing practices).
7. **Post-Use Phase:**
 - **Value Recovery:** Develops operations to reverse material obsolescence.
 - **Objective:** Extract value from used products (e.g., recycling, remanufacturing).
8. **Emphasis:**
 - **Materials:** Some models prioritize material quality and recovery.
 - **Products:** Others focus on product longevity and reuse.
 - **Services:** Some emphasize service-based approaches.

We are aware that **we need to close loops** in order to create a circular economy and a sustainable future. **But closed loops only work if there is a proper business model that guarantees its profitability in the long run.** In a closed loop we can identify three main business processes that connect with one and other:

Acquisition of used products and materials:

The process of acquiring used products and materials involves several key considerations:

Volume: When dealing with material recycling, large volumes are essential. Recycling facilities require a significant amount of input material to operate efficiently. Smaller volumes may be suitable for refurbishing, but the overall quantity matters.

Quality: Ensuring the quality of returned products is critical. For refurbishing, the items must meet certain standards to be viable for resale. Testing and sorting play a crucial role in maintaining quality.

Cost: Acquiring materials at a reasonable price is essential. Balancing cost-effectiveness with quality is a delicate balance. An example of product acquisition is a **deposit** system, such as the ones for glass bottles and beverage cans.

Reprocessing:

Used products and materials need to be reworked into products and materials of sufficient quality for a reasonable price. This can of course be done at the material level, but much more value can be gained if done at the component or product level. For instance, refilling ink cartridges rather than recycling their materials is more cost-effective. Additionally, remanufacturing components for use as spare parts is often cheaper than producing entirely new ones.

Remarketing:

involves identifying markets that are interested in purchasing reprocessed products. Recycled materials of high quality can be used for the manufacture of new products, while refurbished products can target secondary markets against a lower price.

But, if any of the three key business processes fail, we do not have a closed loop. So apart from the technological challenges, a company needs to offer proper incentives and infrastructure to users to return their used products. For the case of (office) furniture, it is not always clear to customers if and how they can return it. Also the problem of logistics of these large and heavy objects, and the storage space needed can be a burden to the customers to return the product. The challenges

often lie in designing the right business processes. Nowadays, loads of car companies are giving the customer the trade-in value for their car back as a discount on the purchase of a new vehicle. These car parts can generally be reused/refurbished/recycled by the car company itself and they give the customer a fair price.¹

An interesting way to be inspired by circular economy could be also a new film series launched by Water-Bear. The series explores the topic and how people can apply it to their own lives. has a new film series circular economy — and how people can apply it to their own lives.

To watch the series:

www.waterbear.com/watch

Often these are examples of small, local-scale projects with little mechanization/automation. We know that an important node in making circularity and recycling of materials possible on an industrial scale is the amount of material to be recycled and the issue of transport to avoid a negative impact generated by the recycling activity itself. In this sense, the spread of small local realities capable of integrating a circular approach is one of the possible alternatives.

¹ MOOC Circular economy, an introduction. TU Delft (<https://online-learning.tudelft.nl/courses/circular-economy-design-and-technology/>)

3.

CIRCULAR BUSINESS MODELS



CLASSIFICATION OF CIRCULAR BUSINESS MODELS

(IN OFFICE FURNITURE)

Based on the notions of value seen above, we present here a possible classification of circular business models. Note that these models are often interconnected, and a lot of companies implement different of these models at once. This way to organise them can describe them more easily :

- A. Design for Durability and disassembly
- B. Product-as-a-Service (PaaS) models and Performance Economy
- C. Waste-to-Value models
- D. Circular Supply Chains
- E. Collaborative Consumption: More users per product

Incorporating circular business models into the office furniture industry not only contributes to environmental sustainability but also aligns with the evolving needs and preferences of modern workplaces. By embracing these 5 principles, furniture manufacturers and businesses can play a vital role in shaping the future of work while minimizing their ecological footprint.

A. DESIGN FOR DURABILITY AND DISASSEMBLY

Making products that last. We are talking about product life extension. Keeping a product at its highest value for as long as possible makes sense, both from an economic and an ecological perspective. (see also the CEO guide Design for Circularity)


The product must be wear-resistant. It has to be designed in such a way that it can actually last a long time. Products that are used in everyday use, need to be resilient by themselves to be able to survive for a long time.

But nowadays, still, product designers need to balance many different requirements when developing a new product:

- Not all products have such a constant function over time that they can be used for a very long time. Most of the products operate in a changing context and therefore must change over time
- Products are not only designed for users but a product designer also works for a business. Most businesses producing and marketing products nowadays operate according to a linear economy (the "sell more, sell faster" principle). If you make money in that way, longer lasting products or products with a long lifetime are not really your ideal kind of product.

How can we capture value from longer-lasting products, through maintenance (= repair), reuse and redistribution?

Follow the Inertia Principle²



DO NOT REPAIR
what's not broken

DO NOT REMANUFACTURE
something that can be repaired

DO NOT RECYCLE
something that can be remanufactured

REPAIR OR TREAT ONLY THE SMALLEST POSSIBLE PART
in order to maintain the existing economic value

² Walter R. Stahel, a Swiss architect who has been considered one of the fathers of the circular economy since the 1970s, developed the principles governing the development of sustainability theories for decades. Around the concept of efficiency he developed a series of statements that go by the name of the principle of inertia. (from Newton's first principle of dynamics: if no forces act on a body or a system of forces in equilibrium, the body persists in its state of stillness or uniform rectilinear motion.

1. **First: Keep the product!**
(Do not repair what is not broken)
2. **If the product is broken:**
Repair (do not remanufacture something that can be repaired. If I repair a product instead of having it recycled, I'm saving a lot of resources and energy)
3. **If the product can't be repaired:**
Remanufacture (do not recycle a product that can be remanufactured)
4. **If the product can't be remanufactured:**
recycle. It's worthwhile to postpone the moment that a product is recycled, for as long as possible. Recycling is "the last resort option."

INTERFACE CARPET



Source: www.interface.com/EU/nl-NL/sustainability/recycling

The modular design of the Interface carpets allows to repair only the damaged or used part of the carpet, without having to remove and replace the whole surface. The removed pieces are reused as carpets, converted to other products or materials, and eventually used as a fuel.

Keeping a product in use for longer

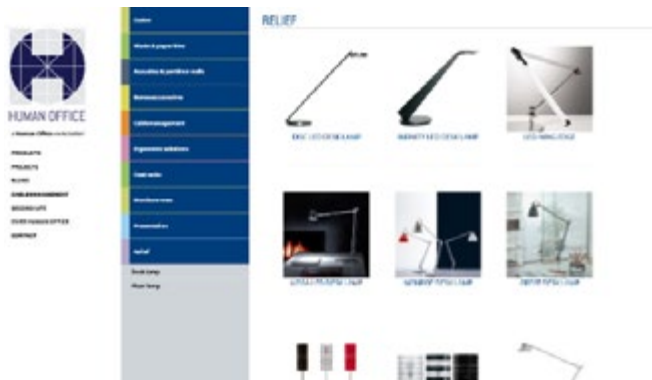
Design it to be really durable, physically, but also able to adaptable to the changing needs of the user.

Use maintenance and upgrade to achieve the same goal.

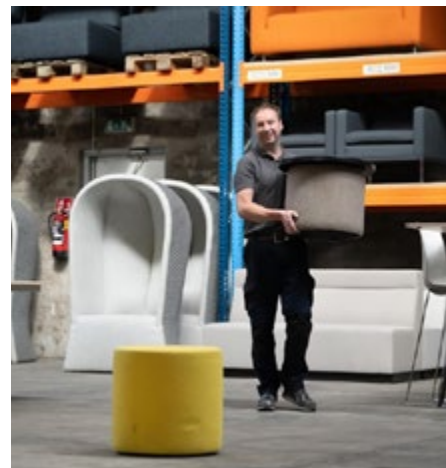
A sensitive point in following the Inertia Principle is the following: how can we ensure that products don't go out of fashion and remain relevant in terms of their use and look?

In the Netherlands the company **Human Office** has been the permanent partner of renowned organisations for many years. Within this network, which they have carefully built up, a complete world of famous brands and high-quality office furniture is regularly released for various reasons (contraction, merger, relocation, etc.). Under the motto 'Sustainability is just doing', a new branch has been added to their range of used office furniture and related products from well-known brands and high-quality A-grade materials. Everything undergoes a thorough technical inspection and is adapted to client's desired look and feel, making it look like new again. In order to **keeping a product in use for longer, the choice to select iconic products and well-known brands is a guarantee of long life to the products.**

HUMAN OFFICE



www.humanoffice.nl



EXAMPLE

Giving a product a second, third, etc. life

- **Repair:** You can repair a product yourself or you can have it repaired
- **Refurbishment:** more extensive process, where products are repaired and components replaced, in order to bring it back to a satisfactory working condition. Refurbishment is always done in a commercial enterprise (Ex: refurbished smart phones)
- **Remanufacture:** even more extensive process. Here, products are totally disassembled into components, and those components are brought back to at least the original quality, and then used to manufacture new products that are identical to the original products.

The process becomes increasingly complex, involving more and more product disassembly and reassembly.

To make these activities possible, product design plays an essential role. Repair and refurbishment are possible if the product is designed for ease of maintenance and repair, and if it is designed for dis- and reassembly (indeed also creating new products that contain parts that have been used before). To use parts and materials

– that are standardized or from other products is a key principle too.

- **Creating attachment and trust:** creating products that will be loved, liked or trusted longer. It is very hard to design a product of which you beforehand know that people will get attached to it or will like it or will love it. But if it works it can really mean that a user will hold on to a product for a longer time.

An example based on the principle of inertia and **keeping a product in use for longer** is the famous Repair café.

Martine Postma organized the **first Repair Café in Amsterdam, 2009**. Now, there are more than 1,000 registered Repair Cafés worldwide, and the number continues to grow. This colossal, global effort helped prevent an estimated 250,000 kilos of waste from landfill in 2016 alone.

The international network of Repair Cafés is constantly evolving and coming up with new and inventive ways of fixing, such as the use of 3D printers to create affordable spare parts for broken items.

REPAIR CAFE



A repair café in Amsterdam, Image via Wikipedia

EXAMPLE

In Office Sector

Office furniture should be designed with longevity in mind, using high-quality materials that can withstand wear and tear. Additionally, furniture should be easy to disassemble, allowing for components to be reused or recycled at the end of their lifecycle.

An iconic example is the chair **Aeron by American Hermann Miller**: it is made largely from recycled materials, it is designed to last, and the parts that are subject to the most wear and tear are easy to replace and recycle. The foam is completely eliminated. In the Aeron Chair in polished aluminium, the structure is lighter and easy to recycle. The Aeron Chair in Onyx is engineered with ocean-bound plastic, helping divert over 44 metric tons of plastic annually from the ocean. The products are built to last a lifetime and most are covered for 12 years.

With the **Think chair (2004)**, Steelcase creates a comprehensive environmental strategy that reconfigures all aspects of the manufacturing process—from the chair’s initial conception to its eventual disassembly. The chair is made to be disassembled so that after its useful life components can be easily accessed, sorted, and returned to the raw-materials stream. To make this cradle-to-cradle strategy truly work, Steelcase had to ensure that the goal was supported by all steps in Think’s life cycle—from the chair’s design, engineering, and materials to its production, transport, and reuse. It had to rethink its manufacturing process and create a new program to help customers determine the most responsible way to dispose of their chairs and assist them in accomplishing that. The whole story is told by Julie Taraska.

THINK CHAIR BY STEELCASE



Think chair by Steelcase. Designed with fewer parts, Think is up to 95% recyclable by weight and is designed to be easily disassembled in five minutes. Think incorporates more recycled content making up to roughly a third of the chair’s weight.

EXAMPLE

AERON CHAIR



EXAMPLE

With remote work becoming increasingly prevalent, there is a growing demand for flexible furniture solutions that can adapt to various work environments, whether it is the office, home, or co-working spaces. Modular furniture designs allow for easy customization and reconfiguration to meet the evolving needs of modern workplaces.

In Germany, **Office. Rent**, a part of Rent.Group company, stands for high-quality and modular equipment for office. The market launch of Office. Rent was during Orgatec fair in October 2024. With their durable and premium products, they propose to create working environments with a high retention and motivation factor. Office. Rent designs concepts with ergonomic aspects in mind, they have a high level of design expertise and over 30 years of experience in temporary interior design within the Rent.Group. They propose a simple cost planning with transparent monthly costs and their all-inclusive service. Office.Rent has 29 locations in Europe, the furniture comes from different manufacturers in Europe. They have logistic centres in each partner country . They have made easy to dismantle a not-so-easy dismantlable chair from Vitra. As a result, the legs and seat can be dismantled, which means they can stock

several seats and fewer legs (to change colour of seats). They order detached legs and seats from Vitra. For the tables, they have invented their own tables when they can't find them with suppliers. And they have them produced by manufacturers. Two brands they love to work with are Andreu World and Arper. Office. Rent has 3 different rental models, but not the leasing because it would be a linear model:

1. Fixed model price from 1 month to 60 months (Typical smartphone model);
2. Flex model price from 1 month up to 60 months. Before to sign clients decide the period, then if they want to change the period they have to pay 3 months if they want to leave but it's possible to extend the period;
3. Combination of fix and flex, depending on the project

For coworking spaces, contracts are for 36 months, which is a good period for testing.

The biggest benefit for customer is the flexibility in the office.

OFFICE.RENT

NACHHALTIGKEIT

Share.Me Reuse.Me

Wir nutzen einen Kreislauf, der über 30 Jahre lang perfektioniert ist. Einen Kreislauf, um Material zu liefern, abzuholen, zu pflegen, aufzubereiten und dann wieder in optimalem Zustand erneut zu vermieten. Dank diesem Modell werden Möbel und Interieurgegenstände während ihrer gesamten Lebensdauer intensiver genutzt. Wir verbessern also deren Ressourceneffizienz. Die dezentrale Organisation mit Firmensitzen in wichtigen europäischen Ballungszentren führt zu kurzen Lieferwegen. Das erlaubt uns eine sehr flexible und kurzfristige Reaktion auf Kundenwünsche oder veränderte Rahmenbedingungen. So können unsere Kunden perfekt teilhaben an einer höchst nachhaltigen temporären Materialnutzung. Wählen Sie aus unserer großen Auswahl immer wieder neu Ihr Wunschmaterial aus. Dies ist nicht nur ökologischer, sondern in den meisten Fällen auch wirtschaftlicher, als sich Material selbst anzuschaffen.



Source: Office.Rent at Orgatec 2024

EXAMPLE DM

Many more examples of design for circularity can be found in the CEO Circular Furniture Design Guide

Download the
**CEO Circular
Design Guide**



B. PRODUCT-AS-A-SERVICE (PaaS) MODELS AND PERFORMANCE ECONOMY

The product-as-a-service business model means shifting from selling products to selling services and solutions. The product-as-a-service business model, also known as product-service-systems, has been a widely researched topic in academic literature since the 1990s. The core of the product-as-a-service definition is that the model focuses on outcomes instead of the product itself.³

³ www.twicecommerce.com/blog/rental-business

There are three different categories of Product-as-a-Service business models:

- **Product-oriented:** the business model is geared towards sales of products. Some extra services are added, for instance, a maintenance contract. The product is sold, but a service is added to it. Like maybe financial coverage or maybe a maintenance contract. But the product is still the central thing.
- **Use-oriented:** The product still plays a central role. It is owned by a provider and is made available to a client. This is also referred to as an "access" model.
EXAMPLE : office furniture renting and plants for office with maintenance service
- **Result-oriented:** The client and provider agree on a result. There is no pre-determined product involved. This is also referred to as a "performance" model.
EXAMPLE : copiers that allow you to copy things, but the copier stays totally in ownership with the provider, and the only thing that you must do as a user is copying. There is a teller mechanism in the copier and on the basis of that you pay per print.

"The European Parliament highlights the opportunities that lie in the optimized use of products and services in the transition to a circular economy. It stresses the need to develop new sustainable and circular business models, which save resources and reduce environmental impacts. It specifically pinpoints the product-as-a-service (PaaS) model as a such a method. In turn, the European Commission views PaaS as a way to bring about a better quality of life, innovative jobs and upgraded knowledge and skills in its Circular Economy Action Plan. Thus, it wishes to incentive this business model. The Europe-

LINEAR VS. CIRCULAR MODEL

Linear model: manufacturers sell their product and the customer takes ownership.



Circular model: manufacturers offer products and services but retain ownership of the product.



Image by www.health.belgium.be

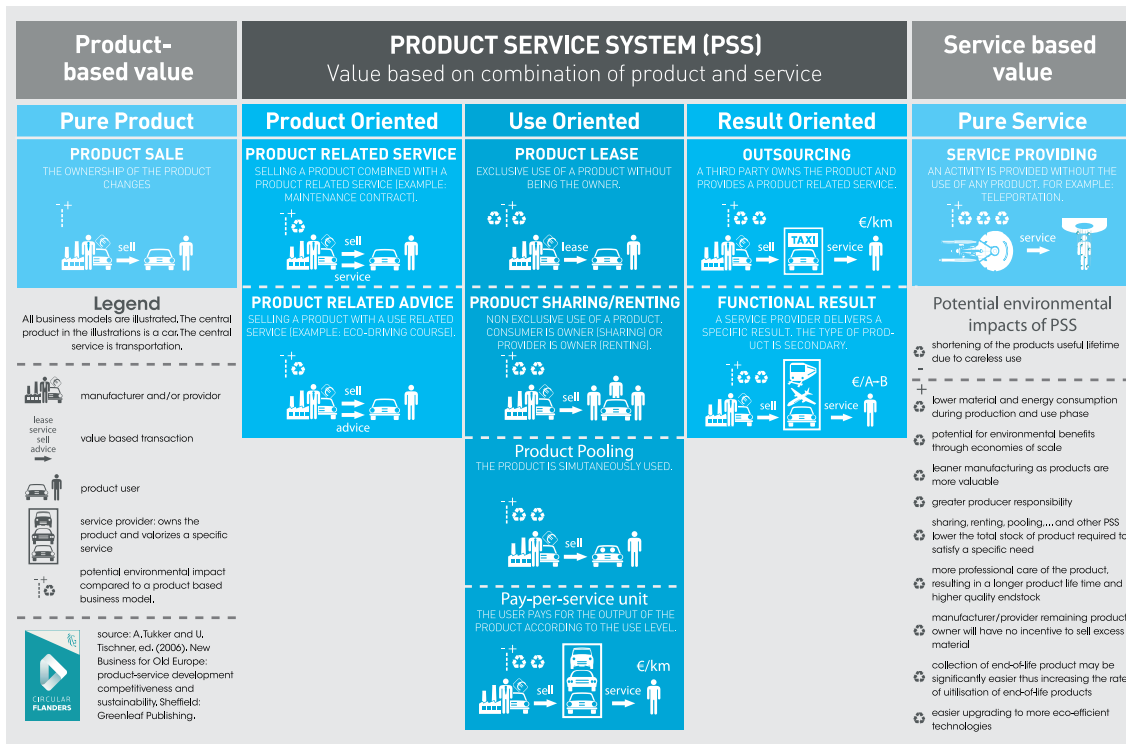
an Commission wants to bring different stakeholders together in the new 'European Circular Business Hub', which will support the uptake of circular business models such as PaaS."

"PaaS holds potential for circularity. The business providing services is incentivized to lower the number of moments that the product requires servicing. Each moment of servicing avoided reduces the costs of personnel and materials. In other words, there is an incentive to make sure that the washing machine needs as little maintenance as feasible and breaks down as seldom as possible. The business providing services is also incentivized to lower the number of hours that the product requires servicing. Each hour of servicing avoided reduces the costs of personnel and materials. In other words, there is an incentive to make sure that whenever the washing machine does need maintenance or does break down, it is easy to disassemble for maintenance or repair."

source: <https://ce-center.vlaanderen-circulair.be/en/publications/publication/30-model-clauses-for-product-as-a-service-paas-contracts>

COMPARISON

PRODUCT SERVICE SYSTEMS MAIN AND SUB-CATEGORIES



<https://vlaanderen-circulair.be/en/knowledge/what-is-it/product-service-systems>

In this case of business, some common characteristics apply to most:

- Closer customer relationships between the company and the customer
- Extended company responsibility
- More efficient usage of material and energy
- Faster innovation

Go deeper: How to Implement Equipment-as-a-Service for Industrial Manufacturers:

www.to-increase.com/rental-and-lease/blog/product-as-a-service-guide-industrial-manufacturers

In Office Sector

Instead of selling furniture outright, companies can offer furniture as a service, providing access to office furniture solutions on a subscription basis. This model encourages the reuse and refurbishment of furniture, as well as incentivising manufacturers to design products for longevity and ease of maintenance. Even services to help interior architects in office space planning are an example, like applications to browse, save, and download individual 2D and 3D DWG symbols for use. With that, the American company **Steelcase** helps clients to efficiently use workspaces. They are a pioneer in the field.

Angela Nahikian, director of global sustainability at Steelcase, has declared that they've done a lot to optimize their operations, but they know their greatest opportunity for impact is not by focusing within their own walls, but by focusing on the millions of square feet that they furnish each year. They help their customers create real estate utilization strategies and insights that enable people to be more effective in more desirable work environments with a smaller footprint. Nahikian states that they also embed technology in the workplace to help businesses, understand space utilization and efficiency and make informed decisions about changes and reducing wasted space. Steelcase currently has two end-of-use programs available to customers

around the globe. Eco-Services, which services Europe, is a program that helps companies evaluate their furniture inventory and identify options for reuse, donation and recycling. And Phase 2 is the U.S. equivalent of that program with slightly different offerings.

Over the years, the two programs have been a success when it comes to keeping furniture out of landfill. In 2016, Eco-Services handled 30,600 cubic meters of material and Phase 2 diverted 6.4 million pounds of furniture from landfill from more than 1,300 decommission requests.

“Dan Dicks, director of global end-of-use services at Steelcase, says their main goal going forward is to build global capabilities for what they internally call asset interception. What they want to improve is their ability to recover assets from customers when they’re done using them, and then keep those assets in play by redistributing them, repairing them, refurbishing them, remanufacturing them, or recycling them. He adds that all of these things are benefits to the circular economy and they are working to develop smart infrastructure for all of these methods.” (interview by Mallory Szczepanski, 2017)

Indeed, Steelcase is building a collaborative ecosystem

of partners and dealers to support sustainable asset interception through reuse, donations and recycling to extend the useful life of these assets, with landfill as the last option. Our partners utilise a vast network of nonprofit partners to repurpose the office furniture and give it new life, reducing the demand on natural resources and landfills. They know office furniture can still have value long after its useful life for their clients, and this solution is available for not only their own products but their competitors’ products as well. Through a renewed focus on responsible materials management, they are minimizing total waste through scrap reduction and prevention in their own production and distribution. Since 2008, Steelcase Eco-Services¹ asset recapture and redeployment service has redeployed 84,000 workstations, with an average of 32% of reuse, 68% of recycling (recycling with 83% of raw material reuse).

source: chrome-extension: <https://www.steelcase.com/content/uploads/2021/09/Steelcase-Impact-Report-and-GRI-2021.pdf>

STEELCASE



Instead of just simply focusing on waste diversion and sustainable design, the company is making the transition to a circular economy business model:

[How Steelcase’s Initiatives Support a Circular Economy \(waste360.com\)](https://waste360.com)

EXAMPLE

In The Netherlands

The company **Vepa** offers Furniture as a Service. With FaaS, the producer or supplier remains the owner of the product. The user receives the product on loan and only pays for the use. With these FaaS projects they guarantee to take the furniture back after the pre-determined period, usually after 5 or 10 years. Organisations can also choose to become the owner of the furniture after the pre-determined period, or Vepa will look for opportunities to reuse the product or its components elsewhere.

They check the furniture, provide maintenance and, if necessary, revitalise the furniture for a second life.

The advantages for the company providing the furniture as a service are (among others):

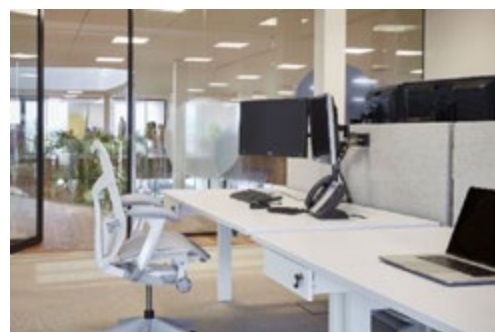
- They remain owners of their products
- They have certainty about which products they get back
 - Configuration of machines and logistics
 - Anticipation on incoming flows of used furniture
- Data gathering and analysis is possible for product optimization
 - Wear and tear
 - Which furniture was more used than other?
 - More detailed when material passport is included
- Double capitalization (once for renting/leasing and for selling)

A good example is the **Eosta** case. As Europe's leading importer and distributor of organic fruit and vegetables, Eosta urgently needed more space after years of continuous growth. The entire building, including the interior, has been developed based on a circular business model. Every piece of furniture has a material passport. This way, it is known exactly which raw materials have been used, how long they will last, what their residual value is and how often they can be re-used in new products. This circular interior have been created by a unique collaboration between client, designer, interior builder and suppliers. For the company **BU-ROLOGE**, who follow the project, it have been the 1st circular interior based on 'pay for use'.

Eosta experienced that a circular approach places special demands on contractors and furnishing companies. Volkert Engelsman, CEO of Eosta, noticed that it was sometimes difficult for them to think circularly. "Not everyone has gotten that far yet. For example, we did not want to buy beams for the new building, but load-bearing capacity, no cooling installations, but conditioned temperature," says Engelsman.

source: www.Duurzaambedrijfsleven.nl

VEPA PROJECT: EOSTA



www.vepa.co.uk/project/eosta

EXAMPLE
,
NL

Alvero is a Dutch company that rents out office furniture, ranging from short time ranges (events) to long time (furnishing). Founded in 1986, they started out by selling used office furniture. In the 90's they got more demands to rent the furniture, and since 1998 they only rent out office furniture. In 2015, Alvero expanded to Germany, Belgium and France.

They propose office furniture as a service: very flexible way of renting office furniture, ranging from daily events (e.g. conferences) to multiple years (offices). They have a very flexible stock of standardized products; they buy according to the demand and the orders. They do not have own production, but everything from interior design to the transport is done by Alvero; they have their own fleet of trucks and drivers.

Every product is equipped with an RFID tag that can be scanned from up to 50 meters away using the dedicated reader. Thanks to the tags, you can easily carry out the furniture inventory, by zone, floor or room. RFID tags also provide functional and financial information for each piece of furniture. This data is stored online, making maintenance and management much easier. The following information can be obtained by scanning:

- Type, brand, production date
- Functional description
- Condition
- Maintenance history and scheduled maintenance costs
- Depreciation and residual value
- Circular economy value

Link with New Work: Alvero responds to the new trends and needs in the New Work Era by offering flexibility in offices. Given that they also rent furniture for hotels, a more domestic feeling can be achieved in the office.

Alvero buys in furniture according to certain criteria for sustainability, modularity and multifunctionality.

Alvero also makes it possible to rent furniture for home offices. The facilities officer makes a preselection from the homeworking range and chooses the products from which the homeworker may order. Alvero then creates an ordering portal with the selected products. On this ordering portal, each employee entitled to a home office can put together his or her individual home office equipment. Everything is delivered directly to the employee, even at short notice.

Lessons Learned:

Get to know the market when you are expanding:

In 2015, Alvero expanded to Germany and France. Adapting to the cultural norms was necessary. In interviews, Alvero employees said Germany does not have the home working culture, while in France they like the freedom of being able to test out the furniture before renting it for a longer time.

Circular business models are robust and flexible:

thanks to their business model and adapted IT-infrastructure, the company was able to react to the pandemic and offer their customers tailor-made solutions.

The screenshot shows the Alvero website interface. At the top, it says "Office furniture for rent at Alvero". Below this, there are four main categories of rental options, each with a list of benefits:

- short-term rental For now:**
 - Whenever your needs, we'll arrange it.
 - ✓ Set up within 1 phone call
 - ✓ From one day to 12 months
 - ✓ Everything directly from stock
- long-term rental For long(er) term:**
 - For a work environment that moves with you.
 - ✓ Scalable and flexible
 - ✓ Priced for use
 - ✓ Sustainable and circular
- renting for a few days For my event:**
 - Whenever you need the furniture for just a moment.
 - ✓ Large numbers possible
 - ✓ Completely unburdened
 - ✓ Including off logistics
- indefinite period Totally Outsourced Furniture:**
 - For making your overall working environment more flexible.
 - ✓ Fully personalized
 - ✓ Freedom of choice, including outside the range
 - ✓ Including interior design

At the bottom of the rental options, there is a button that says "Have a question or want a quote? contact us".

Below the rental options, there is a section titled "Alvero's brand story" with the following text:

Nothing is as changeable as our working environment. Because it grows, scales, digitizes, is temporary or is partly at home. Fortunately, Alvero is on standby. With highly personal solutions and furniture that you pay for as long as you use it.

At the bottom left of the screenshot, the website URL www.alvero.nl is displayed.

EXAMPLE

Furniture rental also makes it possible to seize market opportunities that are little considered but do exist, and for which there isn't much supply:

- Setting up a showroom for sale or rent, to facilitate marketing
- Furnish the spaces of a building undergoing renovation
- Furnish spaces for a wide range of events, from trade shows to Hackathon, or fashion shows and private parties, Olympic games... In these cases, the advantage of Alvero's offer is that it can supply a large quantity of furniture very quickly, which would not be possible by buying from a traditional manufacturer.

The Dutch company **Arco** propose to refurbish their product. When a table is ready for a makeover, it is possible to make an appointment with one of their dealers and they will arrange for the table to come to the factory. They also propose, by the website, several detailed information for maintenance of furniture. Again they make contact with dealers to provide expert advice, a way to build customer loyalty and follow the life of the product.

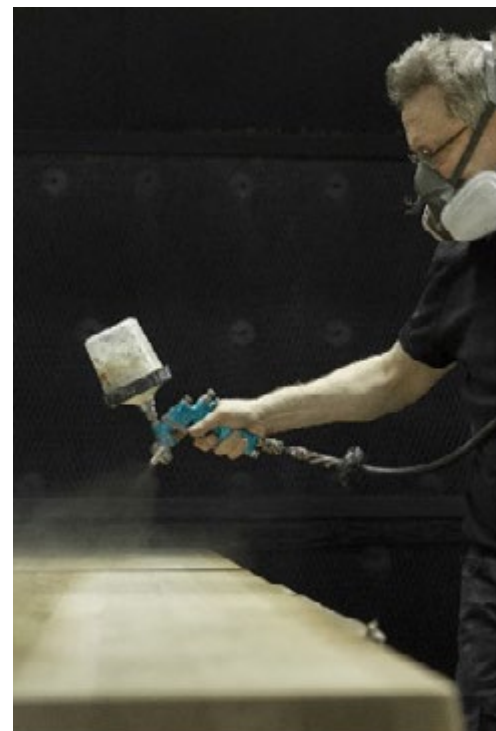
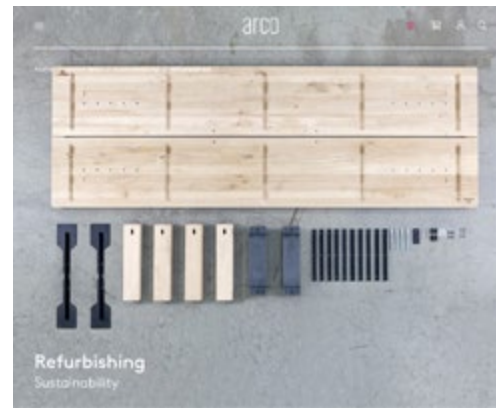
"We have indeed been offering refurbished services for years. Additionally, we design and develop our products in a way that allows parts to be replaced, we offer repair and refurbishment services, and our products can be disassembled at the end of their lifecycle. Moreover, we follow a biobased strategy—not only for our wooden tables but also for our chairs. We use natural latex in recently introduced models and most recently, have started working with recycled foam." (Interview Floor van Ast, Co-owner of Arco)

Skepp strives for a different approach to office design, "Dynamic offices" with more dynamic, flexible, and with more attention to circularity.

They design and realize office environments that move with organizations. Instead of fixed walls and static solutions, they work with flexible furnishings that are easily adaptable to change. This means that they use moveable elements such as meeting boxes, telephone boxes and other non-earth and nail-proof elements. This allows the fixtures to be redeployed in a different form each time without demolition or waste, contributing to a longer lifespan and a more sustainable solution.

The focus on adaptability means they strive to avoid applying fixed elements. Instead, Skepp creates comfortable office environments with flexible elements that are easily reconfigurable. Examples include sit-stand desks that can convert from a duo setup to two single desks, or meeting boxes that can transform from conference rooms to multiple cubicles - without waste or new purchase. This flexibility ensures that their

ARCO



www.arco.nl

EXAMPLE

office furnishings are not only functional, but have a longer lifespan and therefore a lower carbon footprint compared to traditional (static) furnishings. In addition, the Rebox programme offers an extra step towards circularity. Meetingboxes that we take back within this programme are refurbished and repurposed. This means that a product is given a second life, with Skepp taking responsibility for part of the life cycle of their products. For customers who no longer need their products, Skepp offer a buy-back guarantee: within the first five years, the customer receives 25% of the purchase value of the Amsterdam Box back. Skepp take care of dismantling and transport, so the product can get a new life, without any additional worries for the customer.

With these dynamic office solutions, they aim to contribute to workplaces that can adapt to changing needs while maintaining quality, appearance and comfort. This approach helps reduce the environmental impact and extend the lifespan of office furnishings, which is a step towards a circular future.

NORNORM is a Danish company that rents out office furniture using a pay-per-square-meter approach. Companies rent the furniture based on a 3D model of their office, and the logistics, installation and reparation are all included in the subscription. The furniture is designed with interchangeable parts and these parts can also be changed between products. Every item also comes with a passport, and on the app the customer has an up-to-date version of the inventory in their office ([see Annex 1 for more information](#)).

In Belgium

The Belgian company PAMI is committed to a circular economy and is constantly taking important steps. Besides all the advantages of the modularity of their products, the products are also designed for recycling and are 100% recyclable. As an additional circular service, Pami commits to take over existing office furniture to give it a second life or, if this is no longer possible, to recycle it sustainably.

By consultation, they work out a tailor-made solution, carefully considering how they can not only give the items in question a new life, but also do so in a sustainable, cost-effective way.

One example is the conversion of roller shutter cabinets into lockers. To furnish their new headquarters, a major player in the Belgian banking sector was looking for a partner to produce and install locker cabinets for their employees. Since circularity and sustainability are an integral part of their business strategy and DNA, they chose to refurbish existing locker cabinets and supplement them with new ones.

Subscription: NORNORM

Locations: Operates across multiple European countries, including Sweden, Denmark, Norway, Germany, the Netherlands, France, Austria, Switzerland, and the UK.

Established: 2020,

Headquartered: Denmark

What if furniture never became waste? **NORNORM** is building a circular future for office interiors by turning furniture into a service. Founded in 2020, the company replaces the traditional ownership model with a flexible subscription system. Instead of purchasing desks, chairs, or shelves, companies subscribe to a complete, modular workspace solution—delivered, installed, and, when needs change, taken back, refurbished, and re-circulated. This radically changes the furniture value chain: no over-production, no warehouse overflows, and no discarded assets. With a strong focus on standardization, quality, and reuse, **NORNORM** reduces environmental impact while offering clients cost transparency and adaptability. The model enables continuous use of furniture assets across multiple lifecycles and customer locations—extending product life, reducing waste, and decoupling growth from resource use. Major European brands like Electrolux, EY, and WSP already rely on **NORNORM** to furnish their offices—without ever owning a single piece.



www.nornorm.com

EXAMPLE

Pami eventually won the contract and took care of the technical studies, production, transport, delivery and installation. Within the agreed delivery deadline, Pami refurbished and produced +/- 10,000 lockers.

An other example from PAMI is what they made for the new administrative center of the City of Brussels: Brucity. The City of Brussels wanted to set an example and fight waste by making smart use of the materials that are already there. Reusing furniture and giving new life to existing furniture was a natural choice within the sustainability policy. The existing furniture was inventoried and analysed. This clarified which furniture needed to be refurbished or adapted to be integrated into the interior concept as 'new' furniture. The scope included workstations, office chairs, and conference and multifunctional chairs. Pami won this public contract after a thorough screening by the City of Brussels. Aesthetic and circular; sustainable goals were continuously aligned during the process. New and refurbished furniture complement each other perfectly in terms of colours and materials. They form a true whole within the interior concept. Moreover, it reinforces the positive image of the City of Brussels for its environmental approach.

www.pami.eu/en/sustainable/circular-economy



Christophe van Hees,
Marketing manager at Pami

Interview with Christophe van Hees:

What are your biggest challenges today? Practical and organisational difficulties... from real estate for access to storage space (for example, the cost of real estate for large premises in town if you're in the city), logistics, to managing market demand (changing tastes, demands that are too articulate to keep up with, too much made-to-measure, ability to pay the price for rental, customer follow-up over time...).

At Pami, we are deeply committed to circular office furniture, but making the shift from a traditional linear model to a fully circular approach is far from simple. One of the biggest challenges lies in market perception and demand. In Belgium, we've reached a tipping point: more and more companies and organisations are recognising the benefits of circular solutions, and government initiatives are helping to drive this momentum. Still, price remains a decisive factor, even as sustain-

ability gains influence. Educating customers about the value of high-quality, remanufactured furniture is essential, but changing behaviour takes time and requires a well-thought-out strategy that avoids the pitfalls of greenwashing.

Another complexity is lifecycle management and the availability of spare parts. To ensure refurbished furniture remains functional over multiple lifecycles, we need meticulous tracking and easy access to components. Office spaces often contain a mix of brands, which makes securing compatible parts for long-term refurbishment challenging. Fortunately, Pami's vertically integrated production model gives us better control over this process.

Measuring circularity is another thorny issue. Buyers often struggle to compare solutions because there's no universal standard, which complicates decision-making. On top of that, circular business models depend on collaboration within a broad ecosystem. Building trust and shared purpose among partners is crucial so that everyone feels included in the sustainable story from the very start.

Practical challenges also play a role. Managing circular furniture requires substantial storage space and efficient logistics. And then there's the balancing act between customization and standardization: while the market often demands tailor-made solutions, circularity thrives on standardization to maximise reuse. Finding the right equilibrium between these two remains an ongoing challenge.

What are your strengths and what is your most profitable activity that enables you to support a part of your business that is less profitable?

Pami's greatest strength lies in its vertically integrated production model, which gives us full control over every stage of the circular process. From the initial eco-design and manufacturing to transportation, refurbishment, remanufacturing, and—only when no other option exists—recycling, we manage it all in-house. This approach ensures maximum reusability of materials and components, minimizes waste, and significantly extends product lifespans.

Our most profitable activity is the design and production of new and refurbished circular office furniture. From the very start, we incorporate modularity and long-term refurbishability into our designs. This creates a strong foundation that supports other circular initiatives, such as refurbishing and remanufacturing pre-owned furniture, which are less profitable but essential for closing the loop.

In addition, leasing and innovative financial models play a crucial role in sustaining circular operations. By offering these solutions, Pami reinforces the circular loop and makes sustainable choices more accessible for our customers.

PAMI



www.pami.eu



How do you manage the work of your furniture repairers when there is no furniture to repair?

Thanks to Pami's vertically integrated production model and our own production plant, we have built-in flexibility to manage fluctuations in repair demand. When there is little or no furniture to repair, our skilled craftsmen remain fully operational within the factory. They can quickly switch to other tasks, such as producing or assembling new circular products or preparing refurbished components. This approach ensures that their expertise is always utilised and that we maintain efficiency across all stages of the circular process.

EXAMPLE

In your refurbishing activity, are you able to integrate an eco-design approach that will enable you to clean/repair products again and again? For example, easily replaceable coverings, standard spare parts to replace original parts that are not...

Eco-design is at the heart of Pami's circular philosophy. Reliable materials and smart design are key to creating furniture that lasts—and that can be refurbished again and again. This commitment is part of our 100% Belgian DNA and reflects our shared ambition: an economy where waste hardly exists.

From the very beginning, we design with future refurbishment in mind. Our furniture is modular and engineered for easy disassembly, so individual components can be repaired or replaced without difficulty. By manufacturing in Pelt, Belgium, we guarantee a consistent supply of standardized spare parts. Each product remains in our collection for around 15 years, and even after a line is discontinued, we ensure spare parts availability for at least 10 years—significantly extending lifecycles.

We also select sustainable, durable materials that withstand multiple refurbishment cycles, allowing them to be cleaned, repaired, or swapped without compromising quality. To make this process even smarter, we use RFID tracking. Each piece can be tagged to monitor its usage, maintenance history, and refurbishment potential. This data-driven approach optimizes lifecycle management and ensures maximum reuse.

In your refurbishing activity, are you able to integrate an eco-design approach that will enable you to clean/repair products again and again? For example, easily replaceable coverings, standard spare parts to replace original parts that are not...

We believe that reliable materials and smart design are the foundation for furniture that lasts—and can be refurbished time and again. This philosophy is part of our 100% Belgian DNA. We design with future refurbishment in mind. Our furniture is modular and engineered for easy disassembly, so individual components can be repaired or replaced without difficulty. By manufacturing in Pelt, Belgium, we guarantee a consistent supply of standardized spare parts. Each product remains in our collection for around 15 years, and even after a line is discontinued, we ensure spare parts availability for at least 10 years—significantly extending lifecycles. We also select sustainable, durable materials that can withstand multiple refurbishment cycles, allowing them to be cleaned, repaired, or swapped without compromising quality. To make this process even smarter, we use RFID tracking. Each piece can be tagged to monitor its usage, maintenance history, and refurbishment potential. This data-driven approach optimizes lifecycle management and ensures maximum reuse.

Building a successful circular furniture business requires careful planning and strategic decision-making. Key considerations include:

- **Define a clear business model:** understanding your core approach is crucial to long-term success.
- **Build strong partnerships:** collaboration with manufacturers, material suppliers, and policy-makers can strengthen your business model and create new opportunities.

What would you need, in terms of partnerships, in the ecosystem in which you work? and beyond the regions where you work?

To further expand circular office furniture solutions, Pami seeks partnerships in several key areas:

- **Take-back & leasing collaborations:** companies willing to implement leasing models and take-back schemes help create a true circular furniture loop, ensuring that products return for refurbishment rather than becoming waste.
- **Sustainable material suppliers:** access to high-quality, eco-friendly materials is crucial for continuous innovation in circular design.
- **Policy:** government influence for circular business models would accelerate adoption, making sustainable options more accessible to a wider market.

In Gemany

The company **Lyght-living** is provider for home- and office furniture rental in Germany, Austria, Switzerland, Benelux and Denmark. Their leitmotiv is "flexibility is key". Client can extend or shorten his rental period at any time and swap furniture items as required. They work in 9 big cities in Germany and can provide also other places in the country.

The advantages for customers are essentially the possibility of fitting out a workspace without a large initial outlay, and very quickly because the products are in stock, while retaining the possibility of changing configurations and products as the work evolves:

1. Cost efficiency

Renting office furniture allows client to realize significant savings compared to buying. Instead of investing a large sum for the initial equipment, it is possible to spread the costs evenly over the rental period. This is not only easy on the budget, but also improves the liquidity.

2. Flexibility

Rental furniture offers unrivaled flexibility. Client can expand, reduce or replace the office equipment as required. This is particularly beneficial for growing businesses that need to frequently adapt their premises to keep pace with developments.

3. No long-term commitment

By renting office furniture, company are not making any long-term financial commitments. It have the freedom to use furniture only for as long as it is needed. This is ideal for projects with a limited duration or for companies in transition.

Lyght-living offers various packages for a rental period of 4 weeks up to 3 years.

4. Quality and style

Renting allows access to high quality and stylish office furniture that might be out of clients budget if they had to buy it. This allows them to create a professional and welcoming office environment without compromising on quality and design.

5. Easy and convenient

The complete package of delivery, assembly and later collection takes all the hassle out of the equation. The client not only save time and effort, but also the logistical challenges associated with buying, transporting and assembling office furniture.

6. Sustainable

With office furniture rental, people actively contribute to environmental protection, as resources are used more efficiently, and furniture can be reused or recycled at the end of its useful life. This promotes sustainable business practices and reduces company's ecological footprint.

Lyght Living rents the furniture with the option to own/ buy it afterwards (the renting period serving as a good "test phase"). They not only rent their furniture to offices, but also home furniture and furniture for events, offering as well so-called "packages" (e.g. conference room package includes a large table and 12 chairs). They work at international level, and promote their activities as suitable in the new CSRD-directive from the EU.

LYGHT LIVING



lyght-living.com

EXAMPLE

In France

LBC (Le Bureau Contemporain) by **Korus Group**, a specialist in workspace management and Leasecom, an independent leasing company, formed a partnership to create a circular economy offering in the office furniture market. They call it Circular leasing. They are on the French and Italian market. They offer “circular leasing” of old and new office furniture, including maintenance, repair and cleaning of the products 1 to 2 times per year. If companies prefer to change the furniture, LBC buys it and uses it to furnish other offices. At the end of the leasing contract, the furniture is being reused, refurbished or replaced, repaired, cleaned and refurbishment is being done in collaboration with local partners.

Link with New Work: The leasing approach lets customers have a flexible way of using the office furniture, without having to own it.

Lessons Learned: Furniture as a service can not only be a circular solution, but also a financial one. Companies don't need to make a big initial investment, and they have the flexibility to choose the duration of the contract.

LBC by Korus Group x Leasecom:
www.korusgroup.com/expertise/furniture

By eliminating the need for substantial initial investment, leasing enables companies to manage their financial affairs more flexibly and with greater peace of mind, preserving cash flow and recording rental payments as external charges. By opting for Circular Leasing®, office fit-out has no impact on debt capacity, enabling companies to maintain their investment capacity for business development projects and therefore future growth.

LBC KORUS GROUP



www.bureau-contemporain.com

EXAMPLE
 ER

Coworking Spaces

A part of PaaS concern also service around the use of office, not only products: the co-working spaces are a good example of that. Coworking spaces are at the forefront of the SaaS movement. [\(Software-as-a-Service, see also chapter 4\)](#) They provide not just physical space, but a suite of services and amenities that cater to the diverse needs of their members. From startups to freelancers to large corporations, coworking spaces offer a flexible and dynamic environment that embodies the principles of SaaS. As the demand for flexible and service-oriented office solutions grows, coworking spaces will continue to play a pivotal role in meeting these needs.

Several coworking spaces have embraced the SaaS model with great success. For example, the company We work (BE) offers not just office space but a range of services and amenities. Similarly, Industrious (BE + NL) provides a premium coworking experience with a focus on hospitality and service.

It is interesting to note how coworking space activities are linked to the real estate business and connected to the world of furniture manufacturers, these are new joined-ventures across multiple sectors.

To see more about PaaS:

[CE Center report on model clauses for PaaS contracts: 30. Model clauses for Product-as-a-Service \(PaaS\) contracts - Publicatie - CE Center](#)

COWORKING SPACES



Coworking Stokers in Antwerp

The screenshot shows the Regus website interface. At the top left is the Regus logo. To the right are search, phone, and user icons. The main heading is "Office space" with a subtext: "Our flexible, fully customizable office rentals are available by the hour, day, or as long as you need." Below this are three columns of office options:

- Private offices:** A range of ready-to-use, fully equipped offices with everything you need to get
- Custom Offices:** When off-the-shelf simply isn't enough. Customize all aspects of your
- Day Offices:** A professional on-demand office space. Perfect when you need to get

www.regus.com

EXAMPLES
NL
BM

C. WASTE-TO-VALUE MODELS

Waste is a 'flaw' within traditional linear business models of produce and consume. By thinking differently about how we use resources, waste, materials, and human effort, we can reimagine production to maximise value. Rather than disposing of waste, a circular economy approach designs waste out of production and resurrects used resources to give them a new life. To achieve circularity at scale, organisations of all sizes and sectors are finding new ways to turn waste into value – in other words, waste valorisation. This goes beyond the bottom line, delivering social and environmental benefits too.

The PA consulting Report "Waste: The commodity of the future"⁴, gathers inspiring insights from over 30 subject matter experts across industries, showcasing 17 real-world examples of transforming waste into value from our global client portfolio and beyond. Three core strategies underpin the waste-to-value opportunity and deliver economic, environmental, and social value: **reduce, recycle, and repurpose**. In this approach, the local dimension is also important, we have to talk about it somewhere... or elsewhere?

Industrial symbiosis is a process orientated solution turning waste outputs from one process into feedstock for another process or product. One of the most well-known examples of industrial symbiosis is the industrial park Kalundborg.

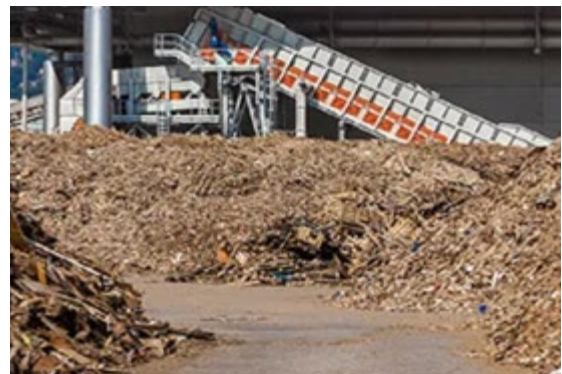
Closed-loop business models include products and business processes designed in a manner that enables waste at the end of the use phase of a product to be used to create new value. An example of moving towards closed loop business model is companies providing office floor carpet tiles, as **Composil**, Specialist in cleaning, refurbishing, and recycling of carpets and textile furnishings.

Cradle-to-Cradle incorporates the idea of a closed loop technical nutrient cycle with a biological open-loop cycle. The latter acknowledges that it is not always possible to recapture materials lost during the production and use phase, and in such instances these waste streams and emissions should be designed so that they are benign to the environment and preferably contributing positive nutrients to the natural environment, creating positive value for the environment.

Under-utilised assets and capabilities as a form of wasted value might be re-captured through sharing – shared ownership, and collaborative consumption approaches. Examples of collaborative consumption approaches being used to radically reduce material throughput are emerging such as peer-to-peer car sharing and local community peer-to-peer electrical power tool sharing schemes.

EXAMPLE : Fantoni commitment to sustainability Fantoni Group is among the world's leading manufacturers of MDF and particleboard panels. For over 20 years, it has focused on the sustainability of its production processes and the use of recycled wood in manufacturing. In 2019, the company invested in a sorting facility capable of recovering 250,000 tons of wood waste per year from municipal solid waste, utilizing STEINERT technology to achieve this. <https://www.fantoni.it/download/>

FANTONI



www.steinert.com

EXAMPLE, SPA

⁴ www.paconsulting.com/insights/the-power-of-waste-to-value-how-organisations-can-rethink-waste

COMPOSIL

No waste.
With us, used carpet finds a new purpose.

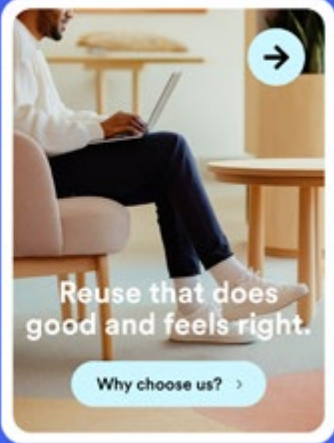
250k
m² of carpet repurposed and given a new start

+60k
m² of carpet adopted for new spaces

2500T
less CO₂ in the air

Reuse that does good and feels right.

Why choose us? >



www.composil.eu/en/solutions

EXAMPLE
BM

WOOD-LOOP



www.wood-loop.nl

EXAMPLE
NL

EXAMPLE WOOD LOOP IN NL: Up to 20% of the wood used in the Dutch furniture industry goes to waste during the manufacturing process. This wood is still useful to the panel manufacturers. That is why the Dutch industry association for interior design & furniture industry (CBM) founded Wood Loop: an innovative organisation making it both **easy and affordable** for wood processors, timber merchants and panel material manufacturers of every size to **recycle MDF and chipboards**. Previously all waste wood from furniture companies and interior design builders was collected in bulk by

waste companies, who sorted it themselves. With Wood Loop furniture companies and interior design builders **sort their own residual chipboards and MDF** into separate Wood Loop crates. Instead of developing two separate circuits (a timber merchant supplies new panel material and a waste processor collects waste wood for sorting) all stages of the process **come together in a single movement**. The panel material distributor drops off a new load of panel material and at the same time collects the pre-sorted waste wood. It doesn't get any more **efficient** than that.

This principle sometimes intersects with the PaaS principle, when we use old furniture that has reached the end of its useful life and can no longer be reused, and we transform it to give it a new life, this is also a case of reusing waste. The example from Pami in the 5.3.C is the case.

Planq exemplifies a circular business model by transforming low-value waste streams into high-quality furniture, demonstrating the potential of sustainable innovation in the interior design industry. The brand utilizes recycled textiles, such as denim and military clothing, alongside biodegradable materials like flax, hemp, and jute sacks, to create its self-developed Rezig® Veneer. This material serves as a versatile composite for chair seats, table surfaces, and cabinet veneers, showcasing how waste can be repurposed into durable and aesthetically refined products. Their Rebel collection further emphasizes adaptability

through steel frames with customizable recycled seats. By integrating circular practices into furniture production, Planq not only reduces environmental impact but also highlights the viability of waste-based materials in high-end applications.

The Dutch company **Cooloo** developed their Endless Life® technology that allows creation, repair and refurbishment of upholstery. They use waste materials such as leather, cork, jeans or stone in combination with bio-based binders. The technology and materials are suitable for making furniture, but also walls, floors, ceilings and objects. The recycled materials are reformed into powders, with a special application machine and bio-based, non-toxic binders.

CIRCULAR SUPPLY CHAINS

The circular approach compels manufacturers to consider the end-of-life stage of their products, facilitating a smoother transition of materials back into the supply chain, thereby conserving value and reducing environmental impact.

Circular economy principles help supply chains adapt to and maintain operations amidst unforeseen disruptions, fostering sustainable growth and resilience in an interconnected world.⁵

Through recycling, part harvesting and remanufacturing, repair, refurbishment and recommerce circular economy principles can reduce dependency on scarce resources and component suppliers, building adaptable and resilient supply chains.

This approach not only helps to decouple economic growth from resource consumption but also fosters a more sustainable and resilient supply chain.

For manufacturers, this means maintaining control over the life cycle of products, materials and components, so that resources are not lost and are recovered. The reuse of these resources must be efficient and enable the capitalisation of circular practices, as well as reducing environmental impact. Building a market for circular service providers requires creating demand for such services and ensuring a supply chain that supports the repair, refurbishment and recycling of products.

Establishing this market requires overcoming consumer skepticism, adapting existing business models and fostering partnerships across industries.

Effectively, a circular supply chain actually represents a number of barriers and opportunities for companies and social economies.

EXAMPLES

PLANQ



www.planq.nl

COOLOO



www.cooloo.nl

⁵ www.weforum.org/agenda

In Office Sector

In the office furniture sector, companies can set up take-back programs to retrieve used furniture from customers at the end of its useful life. These products can then be refurbished, remanufactured, or recycled into new furniture, reducing the demand for virgin materials and minimizing waste.

A good example can be the take back and maintenance program of **Martela** in Finland. Martela's maintenance service includes servicing and replacing worn parts, spare parts and accessories, tightening mechanical fastenings, and cleaning the upholstery, among other things.

Examples from France

Tiptoe is a french furniture manufacturer that is known for their table legs and hooks, adaptable to any table top and shelf. With the RESTORE program, they take back table legs and wall hooks (regardless of their condition) in exchange for a voucher. Thanks to the quality of design and the robustness of materials, they offer a second life to their products by restoring them before putting them back into circulation.

The products from RESTORE will be disassembled, stripped and then refurbished with a French industrial partner in order to be put back into circulation. Regarding their redistribution, several options will be possible depending on the quantity of products recovered over the years: the creation of a dedicated collection with excess paint from our production, the resale "as new" on tiptoe.fr of restored products, a private sale or even a donation to an associative partner such as "Toit à Moi" which works for the reintegration of homeless people. If certain products are too damaged, they will be included in a recycling circuit (namely: steel is the most recycled material in the world and is infinitely recyclable).

MARTELA



Martela's circular economy approach starts with the design and manufacture of sustainable products. The Kilta chair, which has been in the collection for 70 years, is still worth refurbishing.

www.martela.com

EXAMPLE, FIN

TIPTOE



Warranty
Minimum 5 years



Take back
Programme de prise en charge des produits



Use of voucher
Remise en valeur des produits récupérés en magasin



Repair & Sell
Nos ateliers à tout les états de produits

www.tiptoe.fr

EXAMPLE, FR

The company **Buroways** sells second hand office furniture. Among others, they buy back high quality furniture from famous brands such as Buronomic, Steelcase, Fichet Bauche, Herman Miller, Vitra, Wilkhahn, Saman, Majencia, etc. to sell it to smaller companies all over France. They can sell the big brand furniture at 10-25% of the original price. After buying it, they refurbish and clean it. With the new French AGEC law, that requests public procurement to buy a certain percentage of second hand furniture, Buroways has also a market in the public procurement. Depending on the volume of the order, they can transport and install the furniture all over France (for large volumes they can travel further away from their warehouses).

Link with New Work:

Startups usually don't have the big budgets for office furniture when they begin. By buying used furniture they can still profit from high quality, ergonomic furniture while paying a much smaller amount of money.

Lessons Learned:

- Find the right target group to buy from
- Find the right target group to sell to
- Respond to the legal requirements of office furniture procurement

The Company **LOUIS** from Labège has been **offering an almost lifetime repairability service** for its desks since 2018. The average lifespan of a desk is around 7 years, their desks are guaranteed for 5 years. They also offer their customers the chance to buy back desks at the end of their life, as they then resell them second-hand or refurbish them before reselling. This is financially feasible because the product is made of wood, a material easy to renovate. The wooden furniture is produced in France using digitally-controlled equipment, which gives us a great deal of flexibility in production and, above all, allows us to produce to order. Shipment of dismantled products in parcels. Easy assembly, no tools required. And LOUIS also offer an assembly service in France. Product care instructions are available on their website. LOUIS's financial losses on the maintenance and buy-back/resale service are minimal, as this happens very rarely. On the other hand, thanks to this strategy, the company is able to build customer loyalty and become a benchmark brand, which is essential for a brand new to the market and betting on the long term.

LOUIS



www.louis.design

EXAMPLE

Since 2018, another french company **Merci René** offers living and working space design services with solutions from the circular and local economy. The company has a triple profile: interior design agency, manufacturer of made-to-measure furniture and renovation of existing products and those to be recycled, and retailer of new products that they add to furnishing projects. They propose a tailor-made and made-to-measure support by:

- make an inventory of what already exists so it is possible to reuse it in the project or give it a 2nd life (donation, resale)
- awareness-raising and co-construction workshops to get users involved
- interior architecture and design to design ergonomic and aesthetic spaces
- sourcing from 350 local and French partners (furniture, made-to-measure fittings, acoustics, lighting, household appliances...)
- 100% “responsible” products: second-hand, reconditioned, over-recycled, new eco-designed
- logistics with delivery and installation included
- impact assessment based on the project’s CSR criteria
- communication to inform stakeholders and and promote the project

To start with, they make an inventory of the existing furniture to see what can be integrated into the new project, and they look for opportunities to resell or donate any products that are not reused. If sold 2nd hand, the sale price rewards the cost of the move. The removals partner they work with analyses the goods to be moved and calculates a price based on what can be resold and what should be thrown away. Disposing of items to be thrown away costs less if they go to the second-hand market.

The refurbishing of furniture for re-use is done directly by Merci René according to the interior project. Merci René then places 2nd hand furniture from new furniture, selected from a list of partners that are as local as possible and offer products that are as sustainable as possible. For this phase, the company works like a traditional distributor, selling products. Furniture rental is still very rare in France.

MERCI RENÉ



EXAMPLE
FR

Since 2022, **Manutan** France has been involved in the second hand business, taking back old office and school furniture. Initially, they donated them to associations or sent them to Africa. Today, they sell end-of-life products in good condition through their online catalogue.

The sales slogan is that each product, carefully selected, is unique. This should encourage consumers to buy sooner. Second-hand prices are on average 30% cheaper, with guarantees similar to new. Stocks are changing rapidly (1 254 product on October 2024), and information technology plays an essential role. They have set up, in June 2024, their Circular Hub in the north of France, an integrated re-use centre dedicated to used professional furniture.

Covering an area of 3,000 m², the Circular Hub at Le Bourget aims to reuse used office furniture in order to develop a second-hand offer for businesses and local authorities. With this offering, Manutan has become the first French company in the sector to provide an integrated collection and reconditioning service, enabling office equipment (desks, chairs, cupboards, etc.) to be put back on the market.

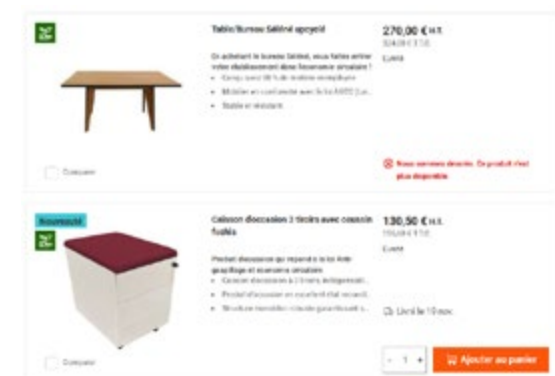
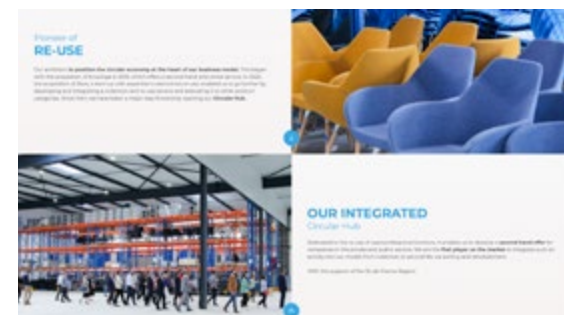
This new activity has three stages:

1. Collection of used furniture from businesses and local authorities.
2. Sorting of products according to their re-use potential, carried out by operators at the end of their integration programme.
3. Second life: Manutan buys back valuable products, refurbishes them and stores them for resale to companies and local authorities. The Group also donates furniture to partner associations, in particular Sud-Oise Recyclerie. Finally, to complete the process, the rest of the furniture will be recycled into secondary raw materials in partnership with the eco-organism Valdelia.

As in other countries, the role of the social economy is crucial to the financial success of this approach, and contributes to companies' commitment to CSR.

According to Pierre-Emmanuel Saint-Esprit, Circular Economy Director at Manutan: *"As well as the environmental impact alone, we are convinced that the reuse business must have a strong social impact. For several years now, Manutan has been encouraging young people from disadvantaged neighbourhoods to enter the world of work through its partnerships with Sport dans la Ville and Ateliers Sans Frontières. At the same time, we also encourage donations to associations. For example, we donated the equivalent of almost €2 million worth of goods to Emmaüs in 2023"*.

MANUTAN



www.manutan.com

As example, in the description of a wood upcycled desk (sold out), the catalogue specifies: product designed with 98% recycled material, that is a good marketing approach.

Furniture in compliance with the AGEC law (Loi Anti-Gaspillage pour une Économie Circulaire). They also declare that they have carried out the LCA of the product, in order to prove that the product : Is made up of 98% reused material; Emits 80% less CO₂ than a new table; Avoids 26.89 kg of waste.

In September 2023, Manutan launched its product environmental impact score. Based on the PEF (Product Environmental Footprint), method established by the European Commission, this rating system provides information on the impact of products throughout their life cycle, beyond the carbon footprint, and will be deployed by 2026 on the 800,000 products in Manutan's offering. This initiative will enable Manutan to better support customers in their responsible purchasing strategy, while at the same time rewarding suppliers who are committed to these issues.

With the **REMADE** programme, the French company **Tertio-Engineering** supports companies in their CSR and eco-responsible approach by offering an alternative that extends the lifespan of office chairs by more than 10 years. They offer their customers a complete renovation of their workspaces thanks to an integrated approach and precision logistics. In addition to renovation work, they also recondition chairs. Each project begins with an audit of the office to understand the issues and requirements. Following a feasibility study, the offer is personalised. How they work: collection, eligibility check, disassembling, correction of structural defects, mechanical repair of textiles, cleaning, disinfection, reassembly, packaging, delivery.

www.objectifaquitaine.latribune.fr

Still in France, “**adopte un bureau**” selects new, used and reconditioned professional furniture for its customers, and helps companies fit out their offices. Their online catalogue mixes the 3 types of products. They buy back used office furniture from their customers, but only professional furniture and essentially premium brands like Herman Miller, Steelcase, Haworth, USM, Kinnarps, Sedus, etc., from a quantity of 20 products. They do it mainly in the Paris region. To buy back furniture from their customers, they first ask them to fill in a special inventory they send in order to evaluate the products to be taken back and formulate a buy-back offer. Their hybrid structure combines reconditioned and new “durable” products to help optimize the budget.

Adopte un bureau’s strength and competitive advantage lies in the fact that they combine consulting, sales and logistics activities, they mix new and used products and, to date, they have few competitors on the French market. We interviewed Guillaume Cuzin of the team of adopte un bureau, about their big challenges and strength points:

“One of our biggest challenges today is real estate. Storage is the lifeblood of our business, as is the sourcing of used products, because good products often end up in the bin and those who offer us products don’t have very good quality products. People’s mentality is changing, but it will still take time for people to stop throwing things away. Often, the people who want to make the most of their old furniture are those who have small volumes and a lot of odd items. Sometimes we don’t take back batches because we don’t have enough storage space, and then a week later customers ask us for exactly those products and we don’t have them... What’s more, when it comes to customer recruitment and retention: for the workspace design service we offer, our customers don’t need us for at least 3-4 years, which means we lose touch with them for quite a while. An- other challenge for us is the follow-up of

TERTIO



www.tertio-eng.com

EXAMPLE
FR

large projects, and therefore the industrialisation of our offer, because we have more and more large projects (around 1000 workstations), which requires a lot of organisation and volumes to manage. One of the strong points of our business is the fact that we refurbish products, and the perception of quality



Guillaume Cuzin,
adopte un bureau

Interview with Guillaume Cuzin

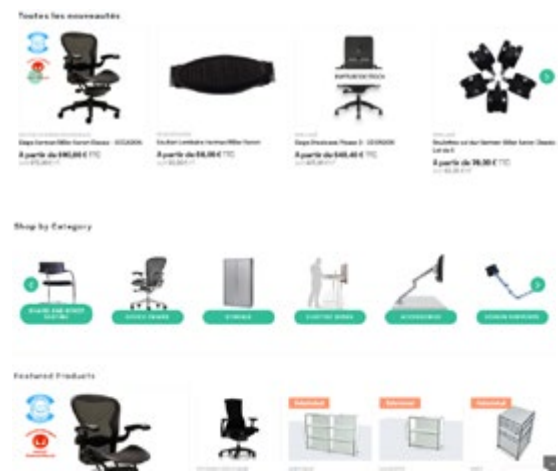
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Among our customers is good because the furniture looks like new. But this activity is not the most profitable today. It can become so when we have volume, and thanks to the industrialisation of refurbishing, but not otherwise. We've been in business for 10 years, and what made us successful in the past was durable new goods; today our business is growing thanks to the industrialisation of refurbishing. In the management of production teams, we generally offer a 3-week schedule for refurbishment. sometimes, if the schedule is less full, we can deliver in a week. Today we only refurbish for an order, but we are in the process of seeing how to better prepare ourselves to react quickly to large repackaging orders, taking advantage of the (rare) moments when we have a little free time without orders. Customers ask to be able to have the parts quickly, and today we are working to be able to deliver to B2C customers within 48 hours. We do not necessarily integrate an eco-design approach during refurbishment, which would perhaps be easier with upcycling. It is not really our job today. We are nevertheless thinking about it for the cutting part of the panels, because we will collect quite a few large trays and cut them into smaller sizes (panels from 160-180 cm to 120-140 cm). We put metal inserts in the trays in order to easily mount and reassemble the legs, but this makes them less easily recyclable at the end of their life because the inserts. On the other hands, when we buy new furniture for our collection, we look for ecodesigned products, and mostly repairables and with possibility to buy spare parts not too expensive. So we prefer to dismantle lots of old, inexpensive furniture and recover the parts. Sometimes, some brands do not want to sell spare parts, which is illegal, but it's because they want to keep control of the management of their second life. We prefer to work on French territory and in Europe and recommend to our customers to work as much as possible with local suppliers to be able to better manage the end of life afterwards. We work with a fairly extensive ecosystem of players in the circular economy

ADOPTER UN BUREAU



www.adopteunbureau.fr

in the parisian region, including other reconditioners. the importance of doing this is to change morals at a societal level. Obviously the AGEC law supports us in this. We also work a lot with the UK because they collect big quantity of products, and sometimes with Netherlands and Belgium.

Examples from The Netherlands

Fair Furniture Group is a group of six brands, each with its own speciality. Before the VDB Group was founded, the name came from the first letters of Vepa, Drentea and Bèta.

The Fair Furniture Group wants to be a leader in sustainable, circular and social entrepreneurship. Not because it is trendy, but because for them it is the ultimate way to have a positive impact on the world around us. At the Fair Furniture Group, circular and social enterprise means: reusing materials, using sustainable energy, cooperating in the production chain and putting people first. That's a tall order. And they say they are not there yet. But they are well on their way, because together they complete the circle.

One of the strengths of Fair Furniture Group is that they work locally.

In their factories in Breda, Emmen, Hoogeveen, Telford and Wijchen, they produce all their furniture close to their customers. Their suppliers for raw materials are always local. Whenever possible, they choose suppliers from the Netherlands and Great Britain. If not, they make deals with suppliers from Western Europe, to keep control and know for sure that the people who supply raw materials have good working conditions and they can guarantee that the OECD and ILO guidelines as well as environmental laws are enforced at their companies. Opting for local also limits the distance between suppliers, the production sites and their sales market. This way, they save both time and the environment.


Source: Fair Furniture Group Social and Sustainable Development Report 2023-2024

EXAMPLE NL

FAIR FURNITURE GROUP

Our brands


We are the Fair Furniture Group. A family of likeminded brands and people.




Eromesmarko

The leading education furnisher from primary to university education.

Read more →







Be by Bèta

Let's everyone sit comfortably.

Read more →







Vepa

The most sustainable local office and project furniture manufacturer.

Read more →







De Lockerfabriek

The expert in locker solutions.

Read more →







Fair Furniture Academy

Our training institute and knowledge centre

Read more →







BUUR

Quickly setting up an office without any worries. That's BUUR.

Read more →







Zooi

From waste to Dutch design.

Read more →






Office Service Nederland

Specialists in office assembly

Read more →



www.fairfurnituregroup.com

The Circular Centre is the circular heart of the Fair Furniture Group.

It is the place where furniture is refurbished and where second-hand products are temporarily stored. Items without a specific destination are disassembled after a few months, down to component or raw-material level. Because the furniture is designed according to circular principles, products, components and materials can easily be reused, requiring only minimal effort to separate the parts.

There are many ways to refurbish furniture, but the essence remains the same: extending the lifespan of the product. Every refurbished piece meets a quality standard that is at least equal to that of a new item. One of the companies of the Fair Furniture Group, is the known company Vepa. Vepa is an office and project furniture manufacturer. The Fair Furniture Academy is a training institute and knowledge center for anyone interested in sustainable production, circular design and furnishing according to the latest principles. So from furnishing consultant and (interior) architect to facility manager, buyer and occupational health and safety advisor. The Fair Furniture Academy is therefore a knowledge center for relations of all companies of the Fair Furniture Group.

[\[Academy - Vepa; www.vepa.nl/duurzaamheid/academy\]](http://www.vepa.nl/duurzaamheid/academy)

EXAMPLE OF PROJECTS:

Between 2020 and 2022, the interiors of the Haagse Poort (The Hague) and Delftse Poort (Rotterdam) office buildings of Nationale Nederlanden (NN) were renovated by Vepa — one of the Fair Furniture Group brands. Vepa delivered a complete approach for the loose furniture: from project planning and concept development to delivery and maintenance. Across both locations, covering approximately 45,000 m², the transformation was carried out while NN remained fully operational.

This project was unique in the way Vepa acted as both consultant and director for all loose furnishings. The amount of new furniture required was minimal. This shift in mindset reflects the transition and the non-traditional way of working that defined this remarkable workspace project.

From the initial phase to the final design, Vepa worked with various suppliers, movers, architects and project managers to come up with a design that was as circular as possible and to make maximum use of all sorts of ideas from the field.

CIRCULAR CENTER OF THE FAIR FURNITURE GROUP

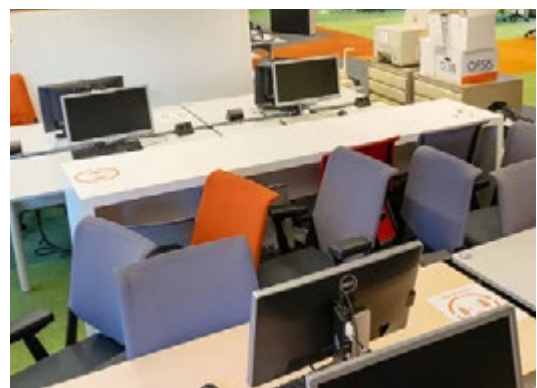


The Circular Centre built in 2023 at the production location in Emmen, where the Research Lab and GreenField also are.

www.vepa.co.uk/sustainability/circular-centre/

PRODUCTION

**HAAGSE POORT
(NATIONALE NEDERLANDEN)
AND DELFTSE POORT
(ROTTERD.)**



www.fairfurnituregroup.com

PROJECT

Here below two interesting study cases with Vepa services and product.

For the new – circular – office design of the buildings in **The Hague and Rotterdam, the Nationale Nederlanden** chose a partner who would take on the full management and realisation of this project. From project design and strategy to completion and maintenance. Vepa renovated the workplaces at two locations with a total of 18 floors for more than 4,000 employees. Over the entire project Vepa achieved a circularity score of 89 %. This transformation was achieved in three years, while NN remains in business.

“We have already proven that we are a flexible partner. Just when we were starting to get a grip on the process, Covid-19 came and a decision was made not to renovate a number of floors. This meant that the entire project plan had to be reshaped. A tough job, but we are enormously proud of the final result. This project was unique in that we were employed as consultant and director for the loose furnishings. The share of new furniture is minimal. This mind shift reflects our transition and the non-traditional organisation of the project.” (Vepa)

Health and sustainability have been the two key elements in the Workspace 2020.

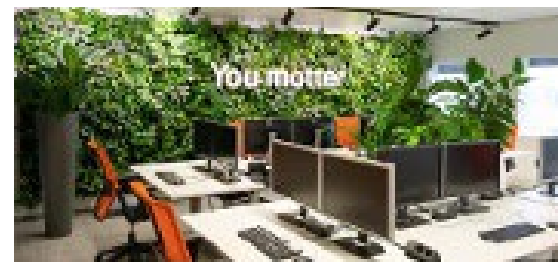
The aim was of 100% circular renovation with 0% waste. Reuse was preferred over recycling furniture or purchasing new products. All aspects of the project, including products, services and logistics, were made measurable with LCAs translated into environmental cost indicator scores.

VEPA PROJECT, NATIONALE NEDERLANDEN

before renovation



after renovation



In the renovation of the **Royal HaskoningDHV** office, they have worked from a depreciated desk to a pleasant environment to work in.

More than 1000 people work at Royal HaskoningDHV in Amersfoort, the Netherlands, with their own desk, cabinet and desk chair. Because the office environments change and the current furniture no longer meets today's standards, it was time for an update. The desks aren't worn technically, but the tripod corner desks are just too big for the work that is being done. Since the rest of the interior was also dated, it was time for a new interior, but as circular and sustainable as possible. Vepa thought about how to renovate offices by making the best use of what already exists. For the workstations they have created new desk tops, partition walls and frames. The most valuable parts, such as the legs and adjustment technique have been reused.

The combination of new and existing parts takes place on the work floor at Royal HaskoningDHV. They refuse to drive back and forth unnecessarily when the work can be done on site.

Lessons Learned: This circular design concept could only be realised through intensive cooperation between the various chain partners, together with the architect and designers. The global approach of a renovation project allows reuse and refurbishing of products.

An other exemplar company from The Netherlands is **CASALA**. Casala is established at Culemborg (NL) with offices in Germany, England and France. Casala offers a complete collection of high-quality contract furniture and soft seating, circular and refurbished furniture.

In Casala furniture, as much recycled raw material as possible is used to minimise the impact on the planet when it comes to mining new materials. Several product ranges within their collection already contain an exceptionally high content of recycled material. Within the Curvy and Feniks product families, a number of models under Circular Guarantee are furthermore provided with a guaranteed return value. As a result, the new owner is guaranteed a fixed residual value at the end of the usage cycle; the furniture is taken back by Casala and reused to the highest possible level.

They propose a service called **ReFurniture**: Casala ensure that old client's furniture is reintegrated into the production process. They take unusable furniture and parts and turn them back into a high-quality like new products. In addition to their own furniture, they also give furniture from other brands a second life. That also applies to >15-year-old furniture. The end result: a quality piece of furniture as good as new, principally

VEPA PROJECT, ROYAL HASKONING DHV

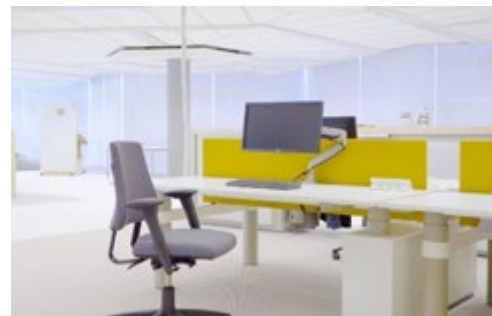
The new workstations are made with a minimum of new materials.



before renovation



after renovation



made from used materials, delivered under factory warranty! This reduces the use of new raw materials to a minimum.

Through OutletFurniture, the firm offers surplus Casala furniture. This includes showroom furniture, furniture that is surplus and furniture that has been used for sampling purposes. This is new or as good as new furniture

used by Casala that has been waiting for a rewarding purpose at a significantly discounted price.

Casala can supply a raw material passport for all its products, in which the composition of raw materials is recorded per product. In this way, users know exactly what they are purchasing, that no harmful substances have been used and the extent to which recycled materials have been used. The Environmental Product Declaration (EPD) for Casala products is currently being prepared. This will map the environmental performance of each product separately based on a complete Life Cycle Analysis.

At the end of 2018, **De Goede Doelen Loterijen** moved to a completely renovated building in Amsterdam, the Netherlands. All eco, environmental and energy measures that have been taken have resulted in BREAAAM Outstanding certification for the sustainable design, construction process and operational management of the building. Casala supplied refurbished Curvy chairs and Lynx shells for the auditorium. This kind of collaboration is an opportunity for Casala to become a reference supplier for big sustainable projects.

The Municipality of Hengelo wanted to use as much circular furniture as possible in its buildings. Approximately 700 multifunctional chairs were needed. Almost all components of the old chairs have been reused. The chairs had a plastic back, upholstered seat and chromed base. Casala reused them by upholstering with a 100% recycled fabric. The original frame was reinforced according to the latest standards and, because the quality of the chrome, after 15 years of intensive use, was still in good condition, was reused without any further coating. The floor glides were replaced with new ones. The old floor glides that could no longer be used were recycled. With refurbishment using a minimum of new raw materials, but a maximum of recycled parts and materials, approximately 700 good quality chairs with a 5 year guarantee were delivered to the municipality of Hengelo. The total saving of CO2 emissions compared to newly produced chairs was approximately 7,140 Kg CO₂.

Lessons Learned:

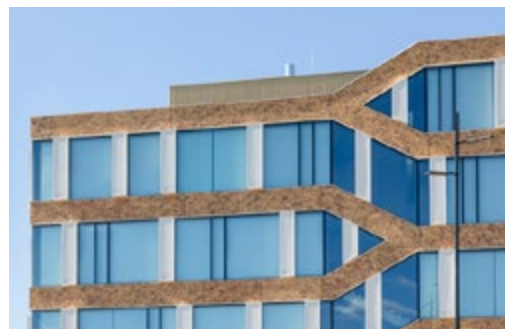
The opening of the vision, which also includes the recovery of furniture from other brands, shows a successful strategy of new sourcing of raw materials and components.

The use of durable materials, such as untreated stainless steel, demonstrates the ease of reuse even after years of use. Stainless steel finish is often a good choice because it is durable in itself, in terms of fashion and scratch resistance.

**CASALA PROJECT,
DE GOEDE DOELLEN
LOTERIJEN**



**CASALA PROJECT,
MUNICIPALITY OF
HENGELO**



www.casala.com

PROJECTS
NL

The concept of **RP** is to engage in a partnership with their customers for every aspect of the workplace. RP can take care of the office design and the furnishing, based on the existing furniture. It is possible to buy reused furniture from their stock, and this comes with a 3 year warranty. They also sell a small proportion of new furniture.

RP also has a renting program for used furniture. Next to this, their Remake program offers a “Refurbishing as a Service”, where customers can customize their own used furniture to the colour, upholstery, painting or repairs to their own preference.

RP also has a take back program; companies can sell their used furniture to RP, or they can trade it for available furniture.

The **RP FIA** (Furniture Inventory App) is an app connected to an inventory database and is the connection between the customers and RP. Customers can check their inventory, but also what’s available at RP. Very practical for companies having multiple departments at different locations. When a change of furniture is requested (for example after a renting period), RP can anticipate on this and link the upcoming available supply to the demand of different customers.

Rekomo is a Swedish company dealing in reused office furniture. They focus on the renting of office furniture (for businesses and private persons), but they also give the possibility to the customers to buy some of the rented furniture.

Their renting program, called RekomoFLEX, makes it possible to change the furniture up to three times per year, and also customization is possible during the refurbishment phase.

Another way they give a new life to used furniture is through their **Rekomo Auctions**, an online auction platform where all kinds of office furniture (from designer pieces to ordinary products) are auctioned. They can also buy furniture from their customers, with the possibility to trade for used furniture they have in stock.

Soeco by Yllw, part of Yllw and NO GA Group, is a Swedish company that recycles and refurbishes office furniture. Its goal is to take furniture which would most likely be thrown away and transform it into an item that either looks like or is new. If the furniture is in good enough condition, it's just buffed up; if it's fairly tatty, it can be refurbished or repaired.

Moreover, Soeco also creates completely new products using waste materials and components from the products it dismantles. One key feature is that it sells its products at second-hand prices - a good deal for offices wanting to support their work, with a 3 year

warranty. Soeco only buys good quality used furniture which is suitable for high-quality recycling and upcycling. Storage space is always a hurdle, especially in cities. Soeco only stores high quality furniture in cities, where the cost of renting space is much higher. In the more rural areas they stock the lower quality furniture on larger (and cheaper) areas.

Customers can check their own inventory and the stock at Soeco via the MIA ((Mobile Inventory Tool for the Workplace).

RP, REKOMO, SOECO



www.rp.se



www.rekomo.se



www.soeco.se

Examples from Denmark

In the spring of 2015, after a rapid success, **Mani Pine** lacked high-quality recycled wood for the manufacturing of their handmade sustainable furniture. Through **NBE (Network for Sustainable Business Development NordDanmark)**, the company came into contact with Salling Entreprenørfirma A/S, which has special competencies related to the careful demolition of old buildings, with a focus on ensuring the recycling of as many materials as possible. From here, Mani Pine was able to acquire sustainable recycled wood. During the development of the cooperation between these two companies, NBE also brought Desmi into the project.

Desmi, together with NBE, has had a great focus on sustainability. Large quantities of steel bolts had been identified - intact, operational, and used only once - from packaging of delivered pump parts. The steel bolts could not be used by Desmi, and had so far only been disposed of as scrap iron. It turns out that it is just such bolts that Mani Pine could use to assemble its furniture.

Mani Pine's ambition is to create sustainable designer furniture that is adapted to the individual customer's home, using recycled materials. For a long time, Desmi has had a great focus on sustainability, and is interested in making their production as sustainable as possible. Salling Entreprenørfirma had a great desire that their recycled wood be used as far as possible for the production of new products - thus supporting the idea of resource optimization, circular economy and upcycling.

Lessons Learned: The identification of the potential synergy between these three widely differing companies, through their focus on circular economy and upcycling resources, was the first step on the road. This required close collaboration and dialogue, and often an outside facilitator with a sharp focus. By bringing the three companies together, a new value network has emerged, and since then the companies themselves have driven the project further.

The collaboration led to new relationships and expansion of networks between the three companies that otherwise operate in widely different industries.

The waste of one company became the raw material of the other company. There was thus financial gain both for Desmi, Salling Entreprenofirma and Mani Pine. Environmental gains appeared in the form of materials - both old wood from demolished houses and bolts used in packaging - getting new value and being upcycled instead of being simply thrown out for downcycling.

MANI PINE



www.nben.dk/cases/mani-pine

DESMI



www.desmi.com

EXAMPLE, DK

EXAMPLE, DK

Examples from Belgium

NNOF – Nearly New Offices Facilities

Nnof is part of Transmoove, a company that offers removal and storage solutions for offices in Benelux. Since its creation in 2013, Nnof works around the transformation of the office environment in all its facets: workplace concept, design, work processes and support services. The team consists of 15 experts ranging from interior designers, change and communication specialists, and project managers, to furniture designers. They remove used furniture from customer for free of charge and from time to time they pay a small sum to the customer.

The customer can buy a 2nd hand furniture and pays it about half the price of a new one, if this product is refurbished, the price is almost the same than a new product.

NNOF offers its customers a wide range of circular products, products in good condition salvaged or bought from their customers and resold second or third hand. They also sell products signed Duplex Studio, a Belgian design office specialized in circular design who produce pieces made from production waste.

One of the best-selling products in this category is the Mister Lounge, which Nnof easily refurbishes according to their customers' wishes. Mr Lounge is made up of recycled table and desk tops. These are cut to size and upholstered in a new fabric, that sometime is the only effort required to refurbish the textile walls, and 80% of the product is reused. The job is outsourced by Nnof to a social economy organization.

For the tables, they give priority to white, black and a wood finish (oak), so that the desks last longer (ever-green design).

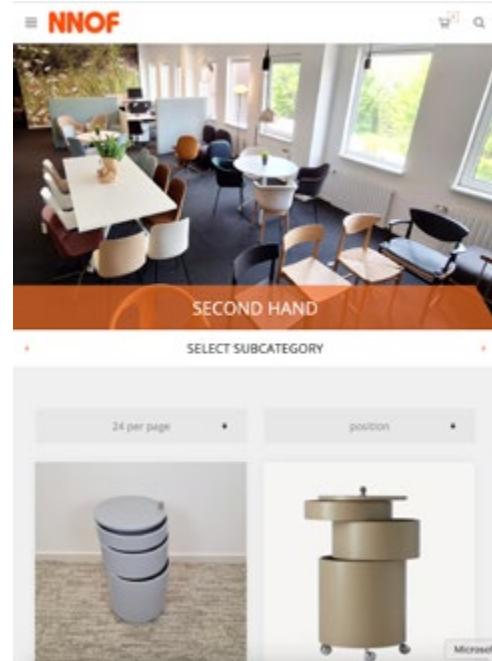
Office chairs are a tricky product to manage: chairs sold in supermarkets are too cheap to buy and too expensive to repair or refurbish.

The prices of reconditioned products are not really more attractive than those of new products, because the impact reduction of their reconditioning is unfortunately not valued financially. On the other hand, the Green deal or Green public procurement has led to an increase in market demand for Nnof services.

In October 2019, Accenture moved to new Benelux headquarters at Gare Maritime in Brussels. Gare Maritime, part of a urban redevelopment in Brussels, is one of the city's most iconic sustainable office space developments. It uses solar energy, rainwater recovery, and natural ventilation, and has lots of vegetation, all within a deeply renovated wooden construction from the 19th century.

NNOF

They propose some product with "Refurbished" tag, specifying the amount of CO2 emissions saved.



www.nnofshop.com

NNOF, ACCENTURE



www.spacewell.com/accenture

source: <https://aankopen.vlaanderen-circulair.be>

EXAMPLE, BE

PROJECT, BE

The circular goal was to reduce the total amount of material, with reuse and refurbishment as a strategy. The aim was to reuse 60% of the furniture. Initially, the company studied which furniture from the old building could be taken directly to the new office, after which a selection was made for restyling in the new design. The remaining furniture was put up for sale to employees and partners.

Accenture achieved its goal, but it wasn't an easy process, because of the still limited range of refurbished office equipment on the market. Moreover, what's available is often standardised, so it didn't always meet Accenture's specific needs. A clear message for the market.

The activity of the mover greatly facilitated the development of the business of selling second or third-hand products, thanks to the availability of a storage place and the existing logistical infrastructure (trucks mainly) of the main company Transmovee.

Eye-opener with Anne Lenaerts, CEO of NNOF, on the topic of the company's challenge and lesson learned, her answer was:

Making circularity happen is not easy, but it's the only way. For us, some challenges are for example the low emission zones (LEZ) in cities, these can sometimes cause problems for the trucks or vans during removals. Also the status of waste collector, dealer or broker is different in the 3 Belgian regions, which makes it more burdensome to transport used furniture from region to region.

Another challenge remains to make everyone imbued by the CSR-mindset. Focusing on the team and on culture is an active daily mission.

Mostly public authorities demand the circular services. Corporate companies often find it too expensive and difficult. On the other side, there is a lot of interest for the purchase of second hand office furniture.

Luckily, the big eye-opener for me was the carbon footprint. Also aligning the strategy and operations to the CSRD (corporate sustainability reporting directive) can help lay down the tracks for circular action.

Based in Brussels, **Relieve Furniture** is a compelling example of how a young, purpose-driven enterprise can thrive commercially by embedding circularity at the core of its operations. In just a few years, the company has crafted a resilient, agile business model by keeping infrastructure lean and operations flexible—relying on a strong network of partners specialised in logistics, cleaning, and recycling.

At its core, **Relieve Furniture operates as a private marketplace**, connecting companies wishing to donate or dispose of surplus furniture with organisations in need. Their curated catalogue features high-quality second-life items, from timeless classics to vintage design pieces, all while removing the logistical and time burdens typically associated with donations. By doing so, they offer a turnkey solution that is not only more sustainable but often more cost-effective than traditional disposal methods.

For many companies, the **donation model** eliminates significant expenses and environmental costs of sending furniture to landfill. Additionally, Relieve Furniture supports clients who follow standard investment cycles, particularly large companies that renew their office furniture approximately every five years. When companies invest in quality furniture, these items remain in excellent condition even after several years of use. Relieve steps in to recover, clean, and remarket them—without the need for costly remanufacturing.

"Remanufacturing isn't necessary in most cases," explains CEO Jeremy Van Mullem. "Our cleaning process, often carried out directly at the recipient's office, avoids the need for extra warehousing or complex logistics."

Currently active in Belgium, **Relieve Furniture is expanding its reach** through a potential key partnership in France and through a dedicated entity in the United Kingdom. The company operates from two warehouses (in Brussels and Huizingen) and a centrally located showroom in Brussels—hosted rent-free in a vacant commercial space offered by a property owner who uses the installation as a functional demo space, thus avoiding taxation on vacancy. This is a perfect illustration of Relieve Furniture ability to turn challenges into opportunities through smart collaboration.

An End-to-End Circular Offering: Relieve Furniture offers a comprehensive set of services for companies seeking to manage furniture surplus ahead of office relocations or renovations. These include:

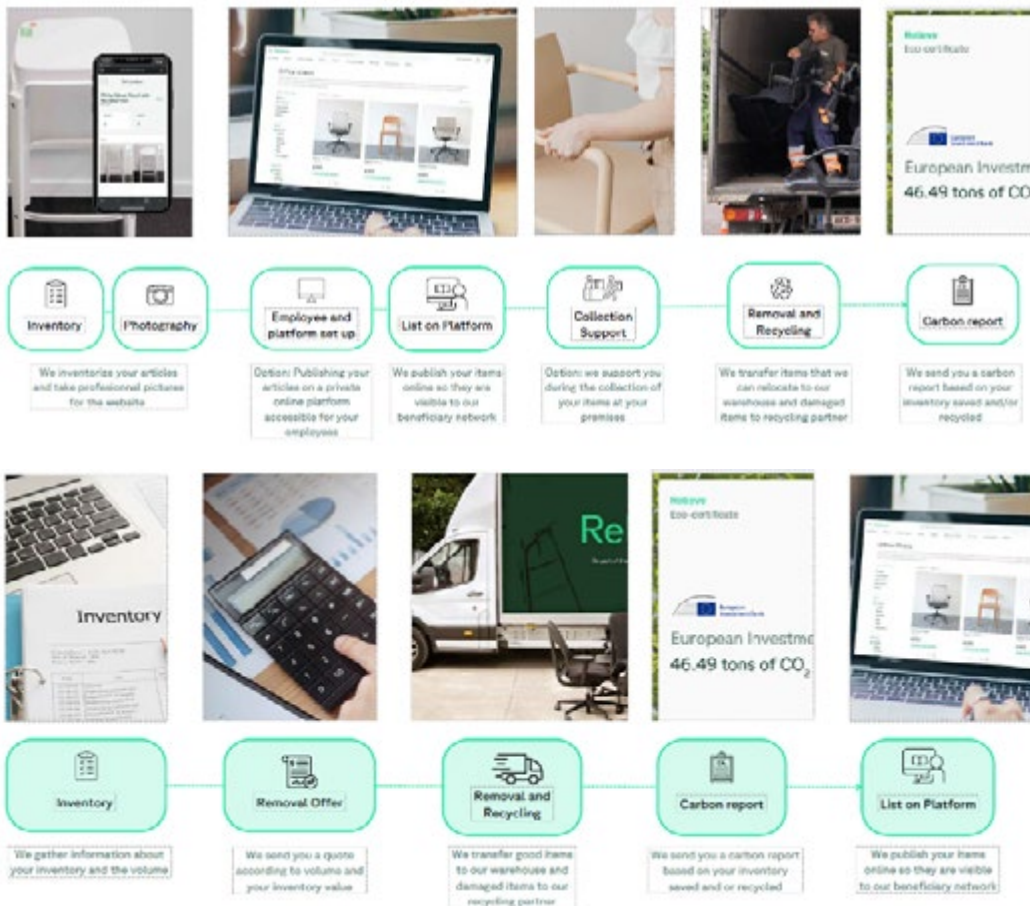
- Full inventory and audit of existing furniture
- Dedicated employee resale portal
- Access to a network of associations for donation or resale (at 30%–50% of original price)
- Logistics, disassembly and recycling services through specialised partners
- Detailed carbon footprint reports, tracking impact based on reuse and recycling metrics

Depending on the timeline, Relieve Furniture tailors its approach: for relocations with 3+ months of preparation, clients can access the full suite of services and benefit from maximised reuse. For shorter timelines, a fast-track version is available that still delivers significant value and impact.

THE CIRCULAR TRANSITION JOURNEY

1. **Inventory & Valuation:** Comprehensive catalogue of all assets, laying the foundation for efficient reuse and redistribution.
2. **Professional Photography:** High-quality visuals that showcase the items, ready for listing across internal and external platforms.
3. **Employee Portal (Optional):** A branded internal platform where employees can purchase furniture legally and easily—fostering internal sustainability engagement.
4. **Circular Marketplace Listing:** Items are published for a wider network of non-profits and circular buyers, amplifying their second life potential.
5. **On-site Support (Optional):** The team supports client staff during the collection process to ensure smooth, stress-free execution.
6. **Removal & Recycling:** Good-condition items are transported to the warehouse; damaged ones are rerouted to responsible recycling.
7. **Impact Certificate & Carbon Report:** Receive a powerful communication tool detailing the environmental savings, social impact, and circular performance.

RELIEVE FURNITURE



source: relieve furniture

EXAMPLE

Modular Pricing to Match Circular Ambitions: a clear and modular pricing model to support circular transitions. (Example of prices for 2025)

Relieve Furniture operates with full pricing transparency, offering a modular menu of services to align with any project scope or budget. From on-site inventory and employee resale platforms to cleaning, ESG reporting, and storage, every element can be selected à la carte—supporting circular transitions that are efficient, impactful, and measurable.

CIRCULAR DESIGN & MARKETPLACE INNOVATION

Designing spaces with purpose: beyond redistribution, Relieve Furniture also offers circular space design, furnishing environments exclusively with second-life furniture. With over 10,000 items in stock and a 6-month quality guarantee, clients benefit from beautiful, durable, and planet-friendly solutions.

As demand grows, particularly for rental and leasing models, Relieve Furniture is poised to adapt. The rise in office leasing and nomadic workspaces means companies now look for flexibility as well as sustainability. Relieve Furniture is already working with architects, real estate brokers, and direct clients to address this trend and provide modular, scalable furnishing solutions.

OPERATIONAL STRATEGY & POSITIONING

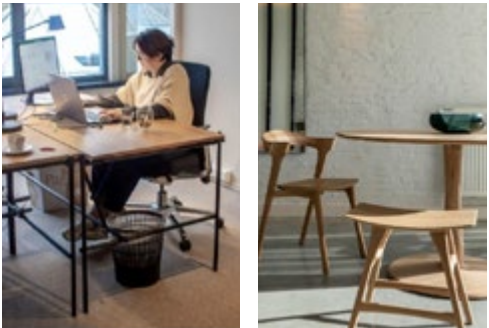
Smart storage: balancing flow and purpose: Like many circular businesses, storage remains a critical challenge. Relieve Furniture response? Operational precision. By maintaining a high turnover rate and re-routing unsold items to Relieve Solidarity – a platform dedicated to NGOs – stock becomes a flow rather than a burden.

But the true strength of Relieve Furniture lies in its ecosystem thinking. The company doesn't operate in isolation – it collaborates. From social enterprises to logistics specialists and ethical landlords, every partner plays a role in scaling circularity.

A recent important player in the ecosystem of the Belgian office furniture value chain is **Impact Furniture**, a company borned **by Oxfam Belgium**.

Impact Furniture is a take-back and resale service of high quality office furniture. Companies can donate their used furniture for a price, and Impact Furniture sells this furniture to other companies. Their catalog is available online, and they make tailor-made offers for companies. The catalogue is created with a designer in order to have a recognizable design line. The price range matches the quality, since the furniture can be unsold stock or intensively used. The furniture has been quality checked according to standards and Impact Furniture offers a 1 month warranty on their sold products. On the other hand they also upcycle furniture with Upcycle Your Office. They reuse plywood in all sorts of functions, and mostly the furniture pieces that are hard to resell are being upcycled. This whole branch of Oxfam Belgium contributes to the social economy and Oxfam-projects worldwide.

LIVE LIGHT



www.live-light.com

The young company **Live Light**, born from the furniture manufacturer Ethnicraft, propose furniture subscription to domestic and professional space for a circular and flexible interior (Office furniture for rent or rent-to-own). The strength of this type of offering is its ability to adapt to changes in the scale of companies such as Start-up, Coworking, Corporate scale up or down, which are in need of a short-term furniture solution.

M. Maarten Van Gool, co-founder of the coworking space HOEK in Sint-Antonius Zoersel in Belgium, said

“Live Light offers flexibility. We can adapt in a very flexible way, based on how people use the space today. Some tables more, some less. So we can actually play around with the offer through Live Light’s formula.”

EXAMPLE

BM

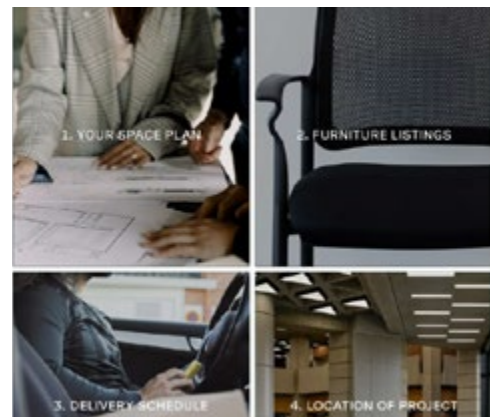
It is not just a solution for teleworkers. By working together, HOEK also brings the neighbourhood into contact with each other, which will only strengthen social cohesion.

They chose Live Light as his exclusive furniture partner because of its wide range, timeless style, and flexible solution for the new coworking space. It is interesting to note that this type of space often chose a style of furniture that is not exactly the classical office furniture.

RELIEVE FURNITURE, SHOWROOM BRUSSELS



CIRCULAR SPACE DESIGN

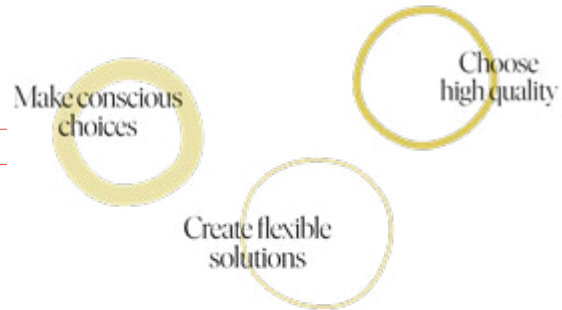


EXAMPLE
BM

Example from Sweden

In Sweden, the company **Kinnarps** has been a pioneer in the field of ecodesign and the circular approach (they are known for not using packaging and for protecting furniture during transport with moving blankets). In Sweden, they provide a lot of after-sales service and refurbishing, as distances allow. In the rest of Europe, it depends on the network of partners in each country. In France, for example, they work in strict collaboration with Valdelaia for the sale of second-hand products, and they supplement with new products only where they are needed. Customers pay Kinnarps directly and Kinnarps then pays Valdelaia.

The suggestions from Kinnarps to their clients to be really sustainable and circular:



KINNARPS

The services they offer:

WORKPLACE ANALYSES

Map and identify the needs in your environments with our workplace analyses for office, education and care.

SUSTAINABLE TRANSPORTS

Reusable transport packaging and full responsibility for assembly and implementation according to your drawing.

MOVING AND RELOCATING

Whether you're moving your furniture within your premises or relocating to a new address, we're here to help.

HOLISTIC ERGONOMICS

INVENTORY AND ACTION PLAN

Get an overview of your interior, establish its value and find out how it best can be maintained, updated, placed and used to function for your current and future needs.

BUY CIRCULAR ONLINE

Shop both new and refurbished high quality furniture in Kinnarps Online Store.

FURNITURE SERVICE ON LOCATION

We can refurbish furniture at your place or in our specially equipped service truck.

WASHING OF FURNITURE

REFURBISHING AND UPGRADES

Refurbishing, renovations and upgrades give new life to your furniture and prolong the overall lifespan. New colours and upgrades can put your existing furniture to new use.

RECYCLING

We help to recycle furniture that has reached its maximum lifespan, in an environmentally friendly way.

Services may vary on different markets. Contact your nearest sales office for more information.

Kinnarps renovates, upgrades, and refurbishes furniture directly at the customer's premises, ensuring minimal disruption and maximum convenience. For larger projects or when additional equipment is needed, they also operate a custom-made service truck equipped as a mobile workshop. Whether working on site or from the truck, they give furniture new life — and the approach is kinder to the environment by reducing unnecessary transport.

[Have a look at: the video here](#)



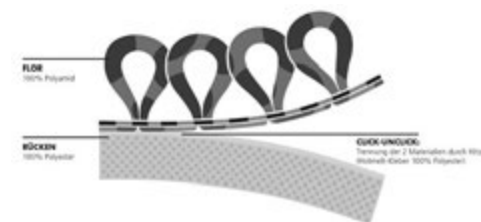
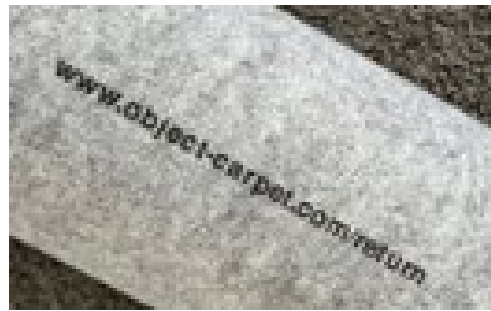
Source : www.kinnarps.com

EXAMPLE SW

Example from Germany

Not so far from furniture, even floor covering has some novelties that change the way to see post-consumer products. Thanks to the intelligent use of material properties, the **DUO carpet** product family from **Object-Carpet** now enables maximum design freedom with minimal use of resources: high-quality polyamide and polyester, bonded by an innovative HOTMELT adhesive made of 100% polyester, are the only components of this carpet innovation. After use, the two components can be easily separated from each other by applying heat and returned to the recycling loop. Thanks to innovative CLICK/UNCLICK technology, the two components can be separated completely. This lays the foundation for a circular product cycle: Designed for an endless life, DUO sets new standards in the carpet industry. As the vision of a more sustainable future does not end at the production stage, OBJECT CARPET works with suppliers to ensure that all DUO carpets are fully returned to the original production cycle. To ensure this, people can check on the website www.object-carpet.com/return where the carpet should be delivered after its useful life in order to be transferred to the recycling cycle.

OBJECT CARPET



www.object-carpet.com

EXAMPLE
DUO

E. COLLABORATIVE CONSUMPTION: MORE USERS PER PRODUCT

A collaborative economy may also be known as a "shared economy," "sharing economy," or a "peer-to-peer economy." Collaborative consumption is the shared use of a good or service by a group through an arrangement that divides the actual cost or purchase price. A common example is ridesharing, whereby multiple people have access to transportation and pay for it, not just the owner of the car.

The concepts of sharing economy and collaborative consumption are used interchangeably in literature and practice. The benefits of collaborative consumption are essentially savings for consumers and saving resources, which are used more efficiently by reducing the need to manufacture new products.

IN OFFICE SECTOR

In the office world, the **shared office and coworking space** are a good example of new way to work and use space and products. Although, as seen above, it is also a PaaS principle.

The occupancy rate of workplaces has dropped drastically in recent years, from 80 to 60%. The covid-19 crisis, which has largely democratised teleworking, portends the advent of new flexible working methods within companies. Flex office (flexible office) and desk sharing (shared office) were born. These two forms of organization take place, often, in open spaces and make it possible to rethink the modes of circulation of employees and the occupation of spaces in the

workplace. The flex office was born first, in connection with the appearance of teleworking and third places. If employees are no longer in the office on a daily basis, then many “desks” remain vacant. So it is possible to reduce the number of places available each day and favor common areas, for example. In this model, the collaborator can choose each day to settle on a new office. The reservation is made by digital solutions to better manage spaces and limit friction for teams.

On other hand, while the pandemic has certainly shown us the importance of flexible work, coworking has been growing in popularity for years due to the vast benefits it brings. Whether worker is a solopreneur or a company, it offers all that traditional offices do, with the added perks of more flexible payment plans and office types, as well as a collaborative, productive space geared towards bringing the minds from a diverse range of industries together.

Different coworking spaces come with different benefits and advantages. With the sheer multitude of options out there, it's easy to get confused or lost. To help better understand the concept of coworking, the company **FLYDESK** provides a selection of premium workspaces and services for a community of modern and flexible professionals in need of a “certain space style”, comfort and tools to be productive wherever they work from. They propose a curated list of the 10 largest coworking networks in Europe using their, like an AirBnB for workspaces. www.flydesk.com

It is interesting to observe that more and more of coworking space are connected with hotel chains, a strategy to reach as many people as possible. It is the case for **Wojo**, a company established in 2015, that has an ambitious and unique aim – to ensure people can work 10 minutes away from where they need to be. Although they currently only have 12 official sites in France and Spain, they provide access to over 300 workspaces across Europe – with plans to expand to 900 within the next two years. They accomplish this via “Wojo spots”, which are coworking spaces, meeting rooms and private offices spread across the country and part of the Accor hotels. They can be easily booked for the hour, day, or week via the Wojo app.

WOJO



www.wojo.com

EXAMPLE

4.

DIGITAL- ISATION AND DATA- DRIVEN SOLUTIONS



EMBRACING DIGITALISATION AND DATA-DRIVEN SOLUTIONS (DPP, SHARING PLATFORMS,...)

The digital transformation has led to the proliferation of new forms of exchange and facilitated the sharing of goods by consumers.

It is known that the collaborative consumption model uses online marketplaces such as eBay, Airbnb, blablacar, ...

In coworking spaces, many companies propose Apps to organise customers agendas and tools for facilitate meeting such as SaaS (software as a service).

The company **FLYDESK**, seen before, develops applications empowering the community of flexible and remote professionals. Enable hybrid work for teams looking for a perfect mix between office presence & remote work, Flydesk optimise the costs and usage of shared offices with workplace scheduling & desk booking.

The screenshot displays the FLYDESK website interface. At the top, the navigation bar includes 'Product', 'Integrations', 'Pricing', 'Contact', and a 'Book a demo' button. The main content area is divided into two sections. The upper section, titled 'Hybrid workplace scheduling', features a central image of a smartphone displaying the app's interface. To the left, text explains the benefit of defining schedules in advance to ensure desk availability. To the right, there are sections for 'WEEKLY SCHEDULE' and 'LEAVE MANAGEMENT'. The lower section, titled 'Manage your hybrid organization', includes a 'Set up & manage' area with icons for various integrations (Google, Microsoft, etc.), a 'Customize' area with options for business days and holidays, and a 'Manage your hybrid organization' text block that describes how to connect FLYDESK with existing third-party applications like Google Calendar and Microsoft Teams. Both sections include 'Try for free' and 'Book a demo' buttons. The URL 'www.flydesk.com' is visible at the bottom left of the screenshot.

EXAMPLE

A good example is the experience of the new Accenture office in Brussels (see 5.3D with Nnof examples)

The scope and challenge for Accenture was:

- 4700 m², 4 floors, 330 desks, 25 meeting spaces monitored, 11 phone booths
- 1,000 employees
- Occupancy and utilization in a free-address workplace (no assigned desks)
- Correlation between space occupancy and comfort parameters
- Optimize space and comfort in an activity-based work environment with flexible work practices and a ‘nomadic’, highly mobile workforce.
- Historically, occupancy data from the Accenture workplace was collected manually, which takes a lot of time and does not give an accurate view of reality (merely a snapshot, no view of the evolution during the day)

The Solution

- After evaluating different vendors and solutions, Accenture opted for Spacewell’s smart workplace platform and its array of IoT sensors.
- Accenture implemented the Space Monitor (with PIR motion sensors) and Comfort Monitor solutions shortly after moving into the new offices.

The Result

- The occupancy rates – objectively measured – turned out to be much lower than people’s perception
- The monitoring – even after only 1 to 2 months’ data collection – uncovered opportunities to improve the overall space utilization
- In some cases, poor comfort was at the root of underutilization, as was evident when comfort measurements were correlated with occupancy data
- Temperature and humidity measurements also proved very useful to tune the HVAC system and resolve comfort issues reflected in the use of the rooms, e.g. small spaces that got too hot and uncomfortable

“I was surprised by the low occupancy rate while the perception was that we didn’t have enough space. Sensor-based space monitoring demonstrated incorrect use of the flex workplace, rather than a lack of space. It shows that even with our very mobile and nomadic workforce, some change management is required to make optimal use of an agile workplace concept. In a free-seating environment, you need to shift people’s mindset to get rid of old habits such as claiming a shared seat in the morning while spending most of the day in meetings elsewhere.”
 (Sam Dils, Facilities Associate Manager and Health and Safety Lead, Accenture Belgium)

HOEK



www.hoek.co

EXAMPLE

Spacewell’s smart workplace platform uses a software that elevates the employee experience, from intuitive room and desk booking to optimizing the in-


door climate. The software also allows you to develop a long-term maintenance plan for office maintenance in line with company objectives and budgets.







SPACEWELL

Spacewell provides integrated software, technology, and advisory services for effective smart workplace, building, maintenance, and energy management.

Don't hesitate to request a live demonstration to experience the extensive functionality, user-friendliness, and flexibility of our software solutions.

Book a demo
Get a quote



 <p>Workplace Experience</p> <p>IoT-connected software and smart devices to elevate the employee experience in the workplace</p> <p style="text-align: right;">Learn more →</p>	 <p>Workplace Analytics</p> <p>Workplace monitoring and data-driven optimization of occupancy, utilization and ambient conditions</p> <p style="text-align: right;">Learn more →</p>	 <p>Workplace Management</p> <p>Workflow-based Spacewell software to efficiently manage the hybrid workplace and automate facility processes</p> <p style="text-align: right;">Learn more →</p>
 <p>Energy Management</p> <p>AI-powered energy management system to optimize energy consumption and carbon footprint</p>	 <p>Building Maintenance</p> <p>Sustainable building maintenance software: long-term planning, maintenance management, and compliance</p>	 <p>Advisory Services</p> <p>Helping you get more value out of your buildings with data-driven benchmarks and actionable insights</p>

www.spacewell.com

EXAMPLE: BM

Leveraging digital technologies such as IoT sensors and data analytics can enable companies to optimize resource usage, track product lifecycles, and identify opportunities for improvement within their circular business models.

The digital Product passport (DPP), is something new that will enter in the European market around 2030, is a digital record that provides comprehensive information about a product and its entire value chain. This includes everything from the origin of the product, materials used, environmental impact, and disposal recommendations, that are essential for circularity.

The development of digital platforms has enabled many companies to make end-of-life furniture stocks available for reuse. In addition to the remains of private individuals reselling their furniture, the webstores of many brands and service companies now also sell used furniture. Many of the companies presented in the examples above have their own digital database and webshops.

The phenomenon of the ghost meeting room

In today’s workplace, efficiently using space and resources is crucial.

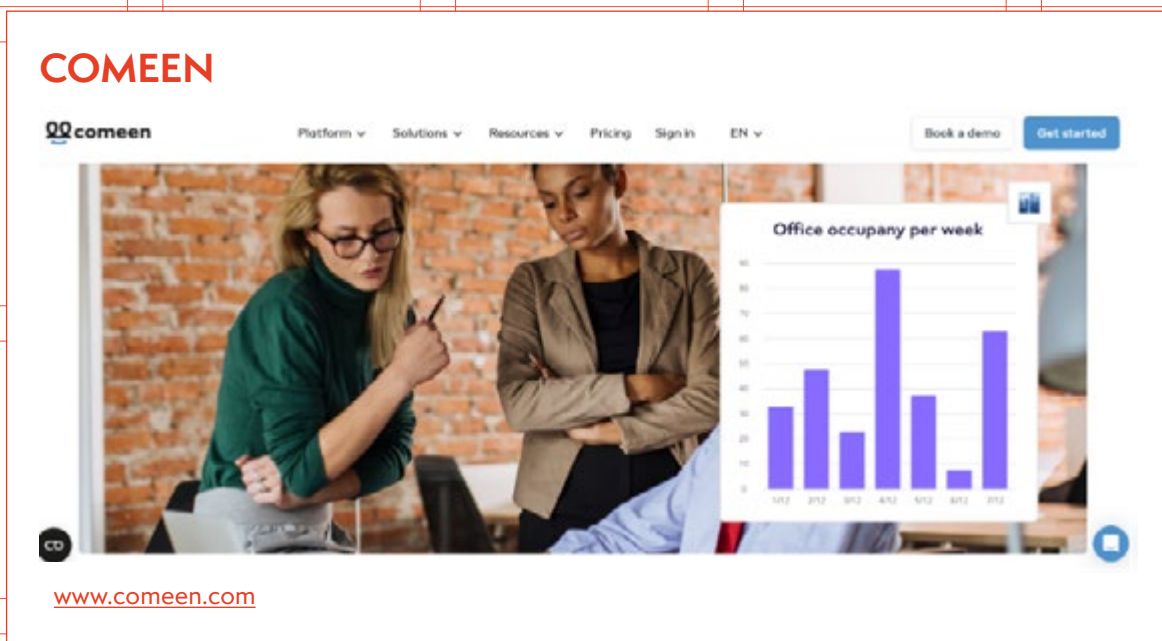
One persistent and frustrating challenge is the “ghost meeting room” phenomenon. These are rooms that appear booked in the scheduling system but remain unoccupied during the reserved time, leading to wasted space and resources. This issue can significantly disrupt busy offices where meeting rooms are in high demand.

Ghost meeting rooms cause various problems within an organization. A recent study by Gartner revealed that up to 30% of meeting room bookings are ghost meetings. This underutilization of space translates into significant financial losses, with estimates suggesting that unused meeting rooms can cost organizations thousands of dollars annually. In larger corporations, this figure can escalate to hundreds of thousands of dollars, considering the combined costs of space, utilities, and employee time.

Empty meeting rooms mean that valuable space is not being utilized effectively, leading to inefficiencies and increased operational costs. Employees become frustrated and productivity decreases when they cannot find an available room despite several booked but empty ones. Moreover, ghost bookings can throw off the balance of room allocation, making it difficult to manage and predict space requirements accurately. Misleading usage data impacts decisions regarding office space planning and resource allocation.

<https://comeen.com/blog/combat-ghost-meeting-rooms-strategies-for-efficient-space-management>

Some companies as **Comeen** are at the forefront of addressing the ghost meeting room challenge with its suite of smart management tools. The platform’s notification system helps liberate up to 35% of unused booked meeting rooms, making them available for other employees. By sending reminders and daily summaries, the tool ensures that users confirm or release their bookings promptly. More than that, the real-time occupancy detection and automated notifications ensure that meeting rooms are used efficiently and that accurate data is available for future space planning.



EXAMPLE

In Sweden

Sajkla is a company focused in creating a one-stop shop for refurbished furniture. They do so by providing multiple services, like consultancy, retail space, education programs, storage and transportation. They facilitate the interaction between users interested in refurbishing furniture and potential suppliers.

Sajkla is a platform that proposes the tools to create a circular flow for company's furniture and interior design. A library of 2nd hand furniture and a use-friendly an intelligent inventory function for who is be able to offer furniture.

Sajkla reuses material flows by facilitating the life-extension of furniture. Through their digital market, they

connect users interested in refurbishing their furniture with their network of suppliers capable of conducting high quality renovation works. They allow users to upload pictures and information of their furniture and return them a quote from their network of suppliers. Their website also functions as a retail center for refurbished furniture where customer can purchase from a pre-defined selection.

In addition, they provide consultancy services (for example, inventory analysis) in order to advice their customers in regards to the potential of their furniture to be refurbished. In some cases, they can acquire furniture directly from users, refurbish it and re-sell it through their website.

SAJKLA

Sajkla makes it easy to switch to a circular furniture flow
 Save both the climate and money by using what you already have. With Sajkla's digital platform, it will be as easy to reuse furniture and furnishings as it is to buy new.

Try for free | Book a demo | Subscribe to newsletters

Inventory
 With our web app and a mobile phone, you can take inventory yourself. Fast, uniform and structured.

Furniture library
 Inventory furniture and fixtures and set up as a furniture library that gives those in charge a completely new service.

Book furniture
 Make furniture bookable for everyone in your organization. Keep track of the flow from reservation to delivery.

Turn around on the shopping stairs
 Instead of buying new immediately when a need arises, it's time to start using the furniture we already have. Some furniture can circulate as is, while others can be given new life via record. When new furniture is finally bought, it must be designed for reuse and for a long life. By placing existing furniture first in the purchasing process, it helps us to think and act more circularly and climate-smart from the start.

"Recycling can then become the norm, and the new purchase the deviant that must be explained"
 - Staffan Appelgren, Department of Global Studies at the University of Gothenburg

1 Befintliga möbler
 2 Rekonditionerade möbler
 3 Nya möbler som går att återbruka

www.sajkla.se

EXAMPLE

Financial savings

Digitally viewing and choosing among furniture within the organization creates a completely new opportunity for financial savings. Our Sajkla's calculation show that an organization can save up to 30% of its annual furniture budget just by making visible furniture that is or will be left over.



“Financial calculation from one of Sajkla’s municipal customers: In the fall of 2020, one of our first municipal customers signed an agreement with Sajkla and in November began inventorying furniture that was left over and not being used. In March 2021, the municipality had documented approximately 800 inventoried pieces of furniture that were not in use. The bookable furniture was made visible internally on the intranet for all employees in the municipality and then began to be booked and put back into use. We have investigated the financial impact of these first three months. In the survey, we have used the actual outcome for the period March-May which has been reported in the municipality’s Furniture Library. The vast majority of furniture just changes places and comes into use without any other action on the furniture. Some furniture has undergone reconditioning only after going out of use.”

The Belgian company **Relieve Furniture** is partly automating its Bilan Carbone® thanks to the use of digital tools that speed up data processing and enable the results to be displayed quickly (and in an organised way). This allows the company to concentrate on activities such as optimisation. AI helps them to facilitate the entire inventory of products to be referenced, as well as the translation and recognition of items using photos, and the automatic description of items based on photos.

source: <https://www.polygones.be/bilan-carbone>

5.

CIRCULAR BUSINESS MODEL TOOLS



CIRCULAR BUSINESS MODEL TOOLS (CANVAS, MEASURING...)

Setting up a circular business model means bringing together and synthesising an enormous number of aspects linked to sustainable production. A number of relevant tools currently exist, some more holistic and others more technical, to establish the level of sustainable and circular ambition of a project, whether large or small.

This chapter presents a selection of tools that can be used to structure and measure the level of circularity of a product or company, depending on the need and context.

CIRCULTICS

The Ellen MacArthur Foundation launched in January 2020 Circulitics 2.0, one of the most comprehensive tools available for businesses seeking to measure their circular economy performance. (www.ellenmacarthur-foundation.org)

The tool highlights their efforts to capture circular economy business opportunities through strategic prioritisation and innovation. The indicators consist of the Material Circularity Indicator, measuring how restorative the material flows of a product or company are, as well as other indicators that allow additional impacts and risks to be accounted for.

Developing the circularity indicator web tool has created a commercially-available web-based tool that provide businesses with the means to track their progress and ensure that their products fit a circular economy based model. This technology allows companies to create Circularity Reports that can then be shared with shareholders or the public, in order to maintain transparency and keep consumers informed on the company's circularity.

CIRCULAB

The Circulab Academy was created in Paris in 2020 by circular economy experts with extensive experience in circular design, business consultancy and education. Their mission is to share tools, methods and knowledge to enhance the resilience of natural and human ecosystems.

Ciculab's tools enable users to learn the basics of the circular economy and get back to basics: with the essential needs of users, the organization and the system,

in a holistic and common sense approach.

They propose, for free, 3 key tools that can be used according to a progressive logic or independently: The Circular Canvas, the Partner Map: to create shared value and cooperative business models, the Value Chain Canvas.



www.ciculab.academy

ResCom

The ResCoM (Resource Conservative Manufacturing) platform brings together software applications and descriptive (i.e. non-software) tools and methods in one place to support decision-making and implementation of closed-loop product systems. The platform propose workshop, serious game, IT tool, Assessments. The ResCoM platform and tools rescoms.eu.

Circular Pathfinder

The Circular Pathfinder has been developed by IDE-AL&CO within the European FP7 ResCoM project. The purpose of the Circular Pathfinder tool is to provide guidance to companies that are looking for appropriate circular design strategies for their product(s). It has been designed as a quick and easy to use tool, that gives motivated suggestions based on a maximum of 10 questions.

www.ideal-co.nl/pathfinder/

FURNCSR Tool

FURNCSR – Corporate Social Responsibility (CSR) guidelines and tools to enhance the furniture labour market attractiveness. The EU FURNCSR project aims to provide EU furniture sector companies with guidelines and a tool to deploy Corporate Social Responsibility (CSR) and Shared Value and enabling to bring their specific and highest benefits. FURNCSR will provide them an action plan template guiding them toward an innovative management model able to strengthen companies' attractiveness and employees retention capacity (economic and organizational, societal and environmental impacts).

Circulix | Rate & Create Circular Products

Circulix is an engine designed to leverage established KPIs from active circularity standardization efforts. It identifies subtle tweaks in products' value chains, which transform into high-impact improvements for overall circularity.

Circulix team contributes as expert in the EU Commission to define circularity standards. They help clients to develop circular product, to find materials which make product circular, to define a circular assessment and action plans.

The model ensures, furthermore, to stay compliant with evolving EU sustainable product regulations such as Ecodesign and Green Claims, etc.. It monitors dynamically all most recent legislation and product requirements, empowering to remain update.



The CIRCO method

Since 2019, the CIRCO method and Circular Business Design Tracks is based on an academic framework of the Technical University of Delft: "Products that last" written by prof. C. Bakker & M. den Hollander, e.a., explaining five circular business models and six circular design strategies. CIRCO uses concrete design tools, inspiring cases & examples, trainer support and interaction and an innovation drive. The Track format is 3 intensive workshop days, 10 companies.

At the end of the CIRCO Track, the companies have a concrete implementation plan for a circular product, service and/or business model.

Design and business model are strategically joint: the creative professional plays an important role in creating circular business.

www.circonl.nl/international/methodology/



Developed by VITO, a European research center (who converts scientific insights into ground-breaking technological innovations with an multidisciplinary approach), "The Risk&RACE boardgame encourages players to experiment with entrepreneurial decision making, resource efficiency strategies and circular economy business models. The game offers an exciting and hands-on experience and triggers brainstorming and discussion about the opportunities and challenges of circular entrepreneurship."

www.riskandrace.vito.be/en

ProCirc procurement toolbox

This tool can be inspiring for the development of a circular business model, even if it is a tool for procurers. It shows how the (public) market is evolving, and gives companies suggestions to align their activities. The toolbox contains a list of tools that can be filtered based on the product category, the stage of the procurement, and other specific parameters in order to arrive at a selection of the most appropriate tools for a specific procurement.

The toolbox contains the original tools and methods as compiled over the life of the project, and is being improved based on practical experience with their application in practice.

When choosing a tool, it is important to consider the context of the organization, their circular maturity, the product category and the goal to achieve.

<https://northsearegion.eu/procirc/training-materials/procurement-toolbox/>

The Circular Maturity Indicator (CMI) is a tool designed to evaluate an organization's progress toward adopting circular economy principles. It helps assess how well companies and the industry are integrating these principles into their operations, which focuses on using materials efficiently, extending product lifecycles, reducing waste and virgin resource use, and keeping resources circulating within the system. Since the value chain and business specifics can vary greatly, the CMI employs different assessment criteria for different stakeholders. By leveraging the Circular Maturity Indicator, stakeholders across the office furniture value chain can gain valuable insights into their current circularity performance and identify areas for improvement.

To ensure wider applicability, we present circularity maturity indicators specifically tailored for two major stakeholder groups: office furniture providers and office furniture users.

6.

BARRIERS AND OPPORTU- NITIES



BARRIERS AND OPPORTUNITIES

Small and medium-sized enterprises (SMEs) are increasingly aware of the benefits of closing loops and improving resource efficiency, such as saving material costs, creating competitive advantages, and accessing new markets. However, various barriers pose challenges to small businesses in their transition to a circular economy, namely a lack of financial and human resources and lack of technical skills, but also the unwillingness of stakeholders in the value chain to cooperate.

Let us begin by looking at what opportunities can be seized from a circular business model.

6.1.1 OPPORTUNITIES

Incorporating circular economy principles aligns also with growing political pressures to develop local production capabilities. This movement towards localization is driven by the desire for economic resilience, job creation and reduced dependencies on global supply chains. The circular economy fosters the development of local circular service provider markets by encouraging the design of products for longevity, repairability and recyclability. This approach supports local businesses and encourages the growth of repair services, remanufacturing facilities and recycling centres. By investing in local ecosystems that support the circular economy, regions can reduce their reliance on imported goods and materials, leading to more resilient local economies. Governments around the world are beginning to implement measures to encourage businesses to adopt these practices. This includes incentives for sustainable product design, support for local recycling and remanufacturing industries and regulations that favour the use of recycled materials in new products.⁶

This focus on creating local circular product and service markets provides a strategic response to supply chain vulnerabilities, fostering economic resilience, reducing environmental impacts and supporting the transition to more sustainable and self-sufficient local economies.

As seen before, **PaaS** (Product-as-a-Service) is a principle that offers new opportunities:

Closer customer relationships between the company and the customer by communication

A successful PaaS company has a closer relationship with the customer. The marketing department in companies has an expanded role, it works per subscription

principles and collects and tracks customer profiles, their way of using a product, their tastes, preferences, and regional buying habits.

To build customer relationships that earn trust, loyalty, and sales, the PaaS companies must work above all on communication: understand customers and personalize the communication, communicate consistently and build trust, gather customer feedback, exceed expectations, create value.

Extended Producer Responsibility

The Product-as-a-service model typically extends companies responsibility for their products along the entire lifecycle, including at the post-consumer stage, usually outside the traditional buyer-seller relationship. These responsibilities include servicing products during the use phase and schemes for takebacks, recovery, reuse, refurbishment, and remanufacturing.⁷

Examples: Sajkla.se; ...

More efficient usage of material and energy

The product-as-a-service model extends the use phase of the product life cycle and guarantees recurring revenues. The longer a product can serve the company, the more revenue it generates.

If the ownership of the product remains with the service provider, the development of repairing, reconditioning and reuse processes is encouraged. This should favour circular supply chains and closed product cycles, and less environmental impact.

Faster innovation

The closer relationship with customers enables product-as-a-service companies to anticipate changing consumer preferences. Moreover, the development of a new service will be faster and more flexible than that of a product. However, this requires efficient information management and organisational changes.

6.1.2 BARRIERS

Regulatory, market and financial hurdles

Companies looking to integrate circular economy principles into their operations must navigate a complex landscape of regulatory, market and financial hurdles. Regulations regarding waste, product standards and cross-border movement of materials can inadvertently

⁶ www.weforum.org/agenda/2024

⁷ www.twicecommerce.com/blog/rental-business

ly hinder recycling and remanufacturing efforts. For instance, certain materials classified as “waste” under current legislation may face strict controls or prohibitions on their reuse, even for recycling or remanufacturing purposes.

Stakeholders in the value chain are not so keen on collaboration, not until they have found a way to capitalise on every bit of effort.

Implications for logistics costs and waste volumes

The initial costs associated with transitioning to circular economy models can be prohibitive. Investing in the necessary infrastructure for recycling, remanufacturing or setting up product-as-a-service models requires upfront capital. Additionally, the operational costs of collecting, sorting and processing used products and materials can be higher than sourcing new materials, at least in the short term. That’s why social economy has a strategic role in circular approach.

In addition to the cost of logistics, the recycling of materials requires a large volume of material to be recycled, and this therefore requires major efforts in the region to ensure the necessary quantity of waste to be processed. If the volume of waste/materials is small, recycling is not profitable.

EXAMPLE: Together with Ecomaison, Dow has developed in France a unique expertise in the chemical recycling of polyurethane (PU) foam from end-of-life mattresses.

The RENUVA™ Mattress Recycling Program brings together every touch point in the value chain to create a new eco-system.

RENUVA

www.corporate.dow.com

EXAMPLE

Fostering mindset shifts

Transitioning to a circular economy requires overcoming entrenched resistance at multiple levels. Internally, organizations may face inertia from established linear processes, with the prevailing “this is how we’ve always done it” mentality posing a significant barrier to change.

Upstream in the supply chain, the shift can disrupt the value propositions of some players, leading to resistance from those who stand to lose from the transition away from linear models. While downstream, altering customer habits and preferences to align with circular practices requires concerted effort and engagement, as it challenges traditional behaviour patterns.

Commitment from top management : if you really want to run a circular economy business, it needs to be a strategic decision that is ensured through the top management of the organization and defines processes, capacity and capability to execute in relation to that strategy. We see that’s not always the case. As long as local and international legislation does not oblige manufacturers to invest in a circular approach, its cost will frighten the majority of companies.

Barriers of refurbishment

Perception barrier:

We have grown in a world where we perceive that what has been used is not good enough. In case of refurbishment, one of the main issues is the perception from customers. They want to have access to the novelty. However, it is not about new, it is about access to the capabilities of a product, so we need to change that perception with the customers and the users.⁸

International trade barriers and other regulatory barriers:

Waste has been dumped in emerging economies and we shouldn’t do that, producers should be responsible of what they put into the market. We don’t have now a free market yet for preowned equipment. “However, when you want to harvest parts for refurbishing, you will need to move parts from one country to another one, in order to make sure that you fulfil the demand, because you may not have supply and demand in the same country.” In Europe, 2nd-hand products are valued on the international market when they are vintage Scandinavian furniture or iconic pieces signed by the design masters of the past. These cases cover a tiny proportion of the volume of used furniture in circulation (or that is disposed of). On the other hand, the bad habit of unloading used waste to emerging countries has also created market opportunities there, and a change of direction must aim for the most global balance possible and take account of the possible

repercussions in third countries. At a time when reused purchases between private individuals are on the increase, the question arises as to whether a contracting authority could itself purchase second-hand products and, if so, under what procurement procedure. For example in Belgium, in theory, of course, there is nothing to prevent a contracting authority from purchasing a second-hand product. However, it would appear that this type of purchase is difficult to reconcile with compliance with the principle of competitive tendering, which is a fundamental principle of public procurement.

6.1.3 POSSIBLE SOLUTIONS TO BREAK DOWN BARRIERS

Policies play a pivotal role in advancing the circular economy and fostering circular business models in the office furniture industry.

A European Union (EU) regulation, the Corporate Sustainability Reporting Directive (CSRD) is leading the way in a new era of corporate disclosures: one that mandates the integration of externally-verified environmental, social and governance (ESG) information with financial disclosures.

The companies concerned are legally obliged to comply with a series of published standards, which supports the opportunity to set up a circular business.

By addressing systemic barriers such as regulatory gaps, market inefficiencies, and market acceptance, well-designed policies can create an enabling environment for businesses to transition toward more sustainable practices. This section explores possible solutions to overcome these barriers.

Building market acceptance

When people encounter products made from recycled materials or remanufactured goods, they might view them as lower in quality compared to brand-new items. To change this perception, it’s important to actively educate and communicate the advantages of circular products, as resource conservation, reduced emissions, and positive economic impacts.

Many companies have understood this and have found ways to enhance the benefits of circulating used products and recycled materials through high-level communication and by targeting the right audience.

⁸ most of the concepts for this paragraph have been taken up since: www.online-learning.tudelft.nl

Even **Ikea** manages to glorify its furniture at the end of its first use!

Creating markets for second-hand items

A growing number of IKEA markets buy back IKEA furniture from customers who no longer need it, and resell these good-quality second-hand items to new customers in the As-Is areas. IKEA Sweden has tested an innovative pop-up store stocked entirely with second-hand IKEA products. Experiences from this test will be used to learn more about the potential of this service.



www.ikea.com

EXAMPLE

Rotor Dc in Belgium, one of the first company that valorise used product on a digital platform in a very professional style. The storytelling of the history of the product is something they want to use to make more sens to their activity.

ROTOR DC

The screenshot shows the RotorDC website interface. At the top left is the RotorDC logo with the tagline 'Deconstruction & Consulting'. A navigation menu includes 'Home', 'Shop', 'News', 'Services', 'About us', 'Contact', 'Visit us', and 'Sign in'. Below the navigation is a breadcrumb trail: 'Products / Seating / Chair 'AAC 26' by Hee Welling for HAY'. A search bar is located on the right. The main content area features a large image of a dark grey, modern chair with a curved back and three legs, set against a grassy background. To the right of the image, the product title is 'Chair 'AAC 26' by Hee Welling for HAY'. Below the title, the barcode is '968FUR052' and the weight is '6 kg'. The price is listed as '109.00 € / pc'. There are minus and plus buttons for quantity, currently set to '1', and an 'Add to Cart' button. At the bottom of the product listing, it says '2 pc available'.

www.rotordc.com/shop

EXAMPLE BE

Navigating the parts and recycling market

Establishing a competitive market for part harvesting and material recycling is crucial. It is essential to cultivate a diverse ecosystem of partners to ensure flexibility and reliability in supply chain recovery processes.

Digitisation's investment requirements

Digitising the circular economy presents challenges such as integrating technology into traditional systems, ensuring data security and managing the complexity of tracking products and materials across their lifecycle. Effective digitisation requires substantial investment in technology and skills development. The digital Product Passport will be a tool for that. The furniture sector is one of the priority sectors for the European ESPR, which should come into force around 2030-2031 and is currently being developed by the European authorities.

The role of the social and solidarity economy

The social and solidarity economy (SSE) plays a crucial strategic role in advancing the circular economy. The social and solidarity economy contributes to decent work, inclusive and sustainable economies, social justice and sustainable development.

Today, moving towards the SSE to fill the missing links in the circular value chain is mostly a matter of cheap and available labour, but also, of course, a matter of Corporate Social Responsibility (CSR). Actually, this new trend should lead to a new economic dimension, which is sufficiency, in considering social and ecological imperatives over profit motives. The SSE seeks to transform the economic system to achieve greater equity and social cohesion, and to put the economy at the service of human needs, instead of putting people at the service of economic growth.

The motto of the Dutch group Fair Furniture Group is as follows: "A 100% socially responsible and sustainable business may sound like a daunting task, but if you stick to your ideals and genuinely care about the world of tomorrow, there are so many opportunities for a company to make a difference!"

www.fairfurnituregroup.com/

But the issue is not so simple, because the objectives of a social enterprise are first and foremost to reintegrate people into society, essentially through a training activity that is then destined to lead to reintegration into the traditional world of work.

This means several things:

- people trained in the framework of social and solidarity companies leave these as soon as they are trained;
- the quality of the work done depends on the level of training of the workers (and also on the design and market knowledge of their managers);
- the activities carried out in these companies seize business opportunities where there is a gap in the market, but they do not particularly have a circular approach (closed loop);

So there are still adjustments to be made, because for the moment there is still a lack of coordination and an optimised strategy between the various stakeholders in the furniture value chain to well valorise this phase of the product life cycle.

⁹ [Social and solidarity economy insights for the circular economy: Limited-profit and sufficiency - Science-Direct](#)

7.

UP- SCALING



UPSCALING

As in the case of circular economy, there is no vast definition of upscaling in this context. Although, we see upscaling at 2 levels:

- Upscaling of the circular business model **within the company**
- Upscaling of circular business models **beyond companies**, on regional, national and international level

The first level mostly refers to companies integrating a circular business model in a niche part of their company (or creating a circular spin-off), and make it grow to make it inherently part of the company.

The second level reaches further than the company level and searches for circularity principles to be integrated in politics and international business. The circularity principles are an integral part of the public procurement, and the right amount of budget is allocated to circular initiatives. Circularity also needs to be upscaled among consumers. And of course this starts by having it integrated into education and trainings, for students and beyond. Research on circular business models needs to be more widespread in all domains. We made a publication on model clauses for PaaS contracts:

[model clauses for product-as-a-service contracts](#)

Upscaling is quite hard in the current economic situation, since radically different approaches will be needed for circular business models to exist and to create and retain value.

The Ellen MacArthur Foundation also suggests that companies can upscale within their company by integrating a **wider range of circular business model**.

From the stakeholder event with the Flemish stakeholders, the following priorities were assessed:

It's clear that action is needed on multiple fronts. The government can play a significant role by giving higher scores to sustainable/circular solutions in **procurement processes**. Additionally, the **measurability** of circularity is a challenging issue, making it difficult for buyers to compare solutions. Furthermore, there are **logistical challenges** in closing the loop: efficiently getting materials back to producers for reuse or recycling requires efficient logistics.

In some cases, external financing can provide the push for scalability, but too few **investors** are familiar with circular models. An additional challenge is that the **value** of circular solutions is difficult to calculate. Moreover, the **legal framework** is unclear, with many gray areas. Finally, participants noted that circular products and services are still unfamiliar to the general public.

Education, awareness campaigns, and fostering a culture of sustainability can change this.

So, there's still a lot of work to be done. The foundation is there. Understanding is growing. But additional initiatives are urgently needed to truly scale up.

Sustainable Public Procurement Tools

A number of European countries and regions developed tools for public procurers to enhance their sustainable engagements. The tools from The Netherlands and Belgium are equal in structure but differ in the details of the criteria according to local requirements.

According to the website page of the MVI tool (NL), you can quickly collect the most recent Sustainable Public Procurement (SPP) criteria for your purchasing document. You can select suitability requirements, selection criteria, requirements, rewarding criteria and contract provisions. There are 3 ambitions levels to choose from and sustainability levels are linked to the criteria. You can then download your selection and copy these texts into your tender document after checking and possibly supplementing them.

The tool and the included criteria are an aid for governments that want to make SPP policy and ambitions concrete. However, you must choose criteria yourself and determine whether criteria need to be further specified, for example, what verification is required and what weighting to use for award criteria. Simply adopting all criteria is not the intention; in practice this can lead to unnecessary or disproportionate application and therefore the absence of the desired effect.

The criteria are applicable on certain themes, in this case the theme of Office Furniture is relevant (with some tools providing subthemes).

If you cannot find certain products or criteria, it might be a good idea to have a look at the other existing SPP tools developed by European countries or regions:

European Commission: www.green-business.ec.europa.eu

Belgium: www.mvoocriteria.be

Germany: www.umweltbundesamt.de

Ireland: www.gppcriteria.gov.ie

The Netherlands: www.mvicriteria.nl

Norway: www.kriterieveiviseren.anskaffelser.no

Province of Antwerp (Belgium): www.provincieantwerpen.be

Sweden: www.upphandlingsmyndigheten.se

8.

ANNEX



8.1 ANNEX 1

COMPARING EXISTING BUSINESS MODELS

Affiliate

The affiliate model monetizes content through discreet links, benefiting both content creators and the affiliated companies. The model shares similarities with the advertising model but has distinct features. It is commonly found online and relies on embedded links within content rather than obvious visual ads.

For example, if you run a book review website, you could embed affiliate links to Amazon within your reviews that allow people to buy the book you are reviewing. Amazon will pay you a small commission for every sale that you refer to them.

Examples: TheWireCutter, TopTenReviews

Brokerage

Brokerage businesses connect buyers and sellers and help facilitate a transaction. They charge a fee for each transaction to either the buyer or the seller and sometimes both.

One of the most common brokerage businesses is a real estate agency, but there are many other types of brokerages such as freight brokers and brokers who help construction companies find buyers for dirt that they excavate from new foundations.

Examples: ReMax, RoadRunner Transportation

Concierge/ Customization

Some businesses take existing products or services and add a custom element to the transaction that makes every sale unique for the given customer.

For example, think of custom travel agents who book trips and experiences for wealthy clients. This approach combines the benefits of mass production (efficiency, cost-effectiveness) with personalized customization, like in fashion with clothes and sneakers.

Examples: NIKE, Converse, Journy

Crowdsourcing

Crowdsourcing is about harnessing collective creativity and problem-solving. That means getting a large group of people to contribute to your project or business. Crowdsourcing involves tapping into a diverse crowd to gather ideas, content, or solutions. A simple example can be : Designers submit t-shirt designs, and when those designs sell, they receive a percentage of the sales. This model can be a way for problem-solving: companies openly share complex problems, and successful solutions are rewarded. The success tip is the offer the right incentives to engage the crowd while building a viable business.

Examples: Threadless, YouTube, P&G Connect and Develop, Cusoo

Disintermediation

If you want to make and sell something in stores, you typically work through a series of middlemen to get your product from the factory to the store shelf. Disintermediation is when you sidestep everyone in the supply chain and sell directly to consumers, allowing you to potentially lower costs to your customers and have a direct relationship with them as well. In the furniture market, this model has developed a lot since the health crisis and the world of distribution has changed a lot: manufacturers invite specifiers with large projects directly to the factory to sell furniture from there.

Examples: Casper, Dell

Fractionalization

Instead of selling an entire product, you can sell just part of that product with a fractionalization business model. One of the best examples of this business model is timeshares, where a group of people only owns a portion of a vacation home, enabling them to use it for a certain number of weeks every year.

Examples: Disney Vacation Club, Netflix

Franchise

Franchising is common in the restaurant industry, but you'll also find it in all sorts of service industries from cleaning businesses to staffing agencies. In a franchise business model, you are selling the recipe for starting and running a successful business to someone else. You're often also selling access to a national brand and support services that help the new franchise owner get up and running. In effect, you're selling access to a successful business model that you've developed.

Examples: Ace Hardware, McDonald's, Allstate, Regus

Freemium

With a freemium business model, you're giving away part of your product or service for free and charging for premium features or services. Freemium models allow for unlimited use of basic features for free and only charge customers who want access to more advanced functionality.

Examples: MailChimp, Evernote, LinkedIn

Leasing

Leasing might seem similar to fractionalization, but they are actually very different. In fractionalization, you are selling perpetual access to part of something. Leasing, similar to renting; customers return the product at the end of the lease agreement. Leasing is commonly used for high-priced items when customers can't afford an outright purchase.

Examples: Cars, DirectCapital

Low Touch

A low-touch business model involves companies offering fewer services to reduce costs. Examples include budget airlines and furniture retailers like IKEA. Customers may need to handle some tasks themselves or pay for additional services.

Examples: IKEA, Low-cost fly companies...

FRANCHISE

The largest coworking space networks in Europe: REGUS

Locations: 150+ in Europe, Established: 1989, Headquartered: Luxembourg

Regus is widely considered to be the first premium serviced office provider – back when the concept of coworking spaces barely existed. Their recently acquired Spaces, which embraces the modern lifestyle and has beautifully designed, tailored coworking spaces ideal for businesses today.

Here, members get access to the widest network of coworking spaces across Europe and the world.



Other examples:

ImpactHub (47 in Europe), **WeWork** (22 cities in Europe), **Talent Garden** (18 cities in Europe), **Rent24** (16 cities in Europe), **Wojo** (12 sites in Europe, 300+ workspaces), **MindSpace** (10 cities in Europe), **Servcorp** (8 in Europe), **Tribes** (7 cities in Europe), **Knotel** (5 cities in Europe).

Marketplace

Marketplaces allow sellers to list items for sale and provide customers with easy tools for connecting to sellers.

This business model generates revenue through various means, such as transaction fees for buyers or sellers, additional services for product advertising, and insurance to give buyers peace of mind. The marketplace model has been used for both products and services.

Examples: eBay, Airbnb, Facebook marketplace

LOW TOUCH IKEA

Locations: 370–380 stores across Europe, **Established:** 1943, **Headquartered:** Netherlands

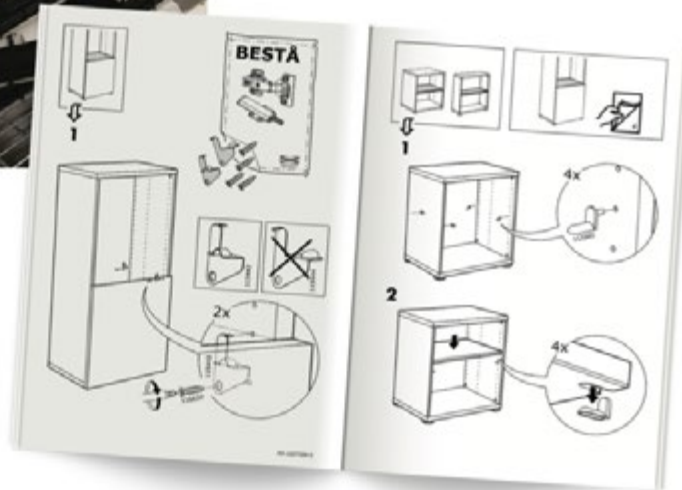
“Everybody knows Ikea. In 1956, IKEA introduces “flatpacking” and turns customers into a free workforce that takes over part of the traditional furniture manufacturing value chain. Customers buy furniture in pieces in stores and assemble it in a DiY way at home. IKEA reaps substantial operational cost savings from getting customers to perform part of the work. Since storerooms also act as warehouses, customers select furniture, pick up the flatpacks, then transport and assemble them all at their own cost. IKEA’s ability to leverage the work done by its customers enabled it to grow to 483 stores in 63 global markets, serving more than 957 million customers for a retail revenue of €45.1 billion in 2024. Flatpacking doesn’t just enable cost savings from enlisting customers to do part of the work: it leads to overall cost savings in the manufacturing, storage, and mass transportation of furniture from factories to retail centers. The design of products is modular, simple and minimalist simplifies also manufacturing.



In 2010 IKEA changed the design of its Ektorp sofa, reducing the size of the flatpack by



and charging a 14% lower retail price.⁵²



16% of surveyed U.S. homeowners have purchased more than **1/4** of their furniture from IKEA in the last 10 years.⁵³

Pay-as-you-go

Instead of pre-purchasing a certain amount of something, such as electricity or cell phone minutes, customers get charged for actual use at the end of a billing period. The pay-as-you-go model is most common in-home utilities, but it has been applied to things like printer ink.

Examples: CANAL+, Linked'In, Car renting, Telepass, iTunes and Google Play

Razor Blade

The razor blade business model takes its name from the product that essentially pioneered this approach: companies sell a durable product at a low cost to boost sales of a high-margin, disposable component. Razor blade manufacturers often provide the razor handle at a minimal price, expecting customers to purchase a large volume of blades over time. The ultimate aim is to create a customer ecosystem, ensuring ongoing and frequent purchases.

Examples: Sony and Microsoft (sale game console cheaper and revenue from game subscriptions, software licensing agreements, and other related purchases.)
In automotive: Companies like Tesla offer high-priced vehicles (the “razor”) but generate consistent revenue through low-cost consumables like charging services, app-based upgrades, and in-car purchases.

Reverse Razor blade

Flipping the razor blade model around, you can offer a high-margin product and promote sales of a low-margin companion product. Similar to the razor blade model, customers are often choosing to join an ecosystem of products. But, unlike the razor blade model, the initial purchase is the big sale where a company makes most of its money. The add-ons are just there to keep customers using the initially expensive product.

Examples: Apple’s iPod & iTunes, and now MacBooks & Pages, Numbers, and Keynote

Reverse Auction

A reverse auction business model turns auctions upside down and has sellers present their lowest prices to buyers. Buyers then have the option to choose the lowest price presented to them.

You can see reverse auctions in action when contractors bid to do work on a construction project. You also see reverse auctions anytime you shop for a mortgage or other type of loan.

Examples: In entertainment and Media: Netflix, Spotify, and Disney+ are capitalizing on their initial investments in content delivery platforms, which are often affordable or even free for users.

Subscription

Subscription business models are becoming more and more common. In this business model, consumers get charged a subscription fee to get access to a service. While magazine and newspaper subscriptions have been around for a long time, the model has now spread to software and online services and is even showing up in service industries.

Examples: Coworking space memberships, Enky (pioneer on furniture subscription)

Cooperative

The cooperative model creates shared prosperity, allowing more people to participate in the economy. Instead of a few people owning the bulk of every business, ownership resides with the people. As the cooperative model uses the concept of “one member, one vote,” it also helps to level the playing field.

Examples: Sonian Wood Coop in Belgium. But also cooperative of buyers, like UCEM in France (the first French cooperative group in the furniture sector)

This is by no means an exhaustive list of all business models that exist—but, hopefully, it gets you thinking about how you might structure your business. The key thing to remember is that you don’t need to invent a new business model when you’re starting your business. Using existing models can help lead you to success because the model has been proven to work. You’ll be innovating in smaller ways within that existing business model to grow your business.

A new business model could be extremely lucrative but also brings with it higher risk. You don’t know if customers will accept the model or not.

8.2 ANNEX 2

DEFINITIONS OF CIRCULAR BUSINESS MODELS

Several definitions of circular business models can be found in recent literature but currently no consensus has emerged on a generic definition.

These definitions explore different aspects of value creation, delivery processes, and resource management. Most definitions emphasize economic aspects, considering how CBMs create value.

Some definitions delve into the strategies behind value creation, emphasizing resource flows.

CBMs aim to maintain products and materials at their highest value for extended periods.

While some definitions are specific and operational, others remain conceptual. The latter frame CBMs within closed material loops without detailed implementation guidance.

Here is a selection of other definitions of circular business models, next to the one on page 16 of this guide.

- “A business model in which the conceptual logic for value creation is based on using the economic value retained in products after use in the production of a new offerings. Thus, a circular business model implies a return flow to the producer from users, though there can be intermediaries between the two parties [...and] always involves recycling, remanufacturing, reuse or of their sibling activities, as refurbishment, renovation, repair.” (Linder and Williander, 2015)
- “A circular business model describes how an organization creates, delivers, and captures value in a circular economic system, whereby the business rationale needs to be designed in such a way that it prevents, postpones or reverses obsolescence, minimizes leakage and favours the use of ‘pre-sources’ over the use of resources in the process of creating, delivering and capturing value.” (Den Hollander and Bakker (2016)
- “A circular economy business model is one which creates, delivers, and captures value in a manner that is compatible with and enables regeneration of finite natural resources, and keeps products, components and materials at their highest value

and utility within a relevant system boundary.” (Smith-Gillespie, 2017)

- “CBMs can be defined as SBMs specifically aiming at solutions for the Circular Economy through a circular value chain and stakeholder incentive alignment.” (Geissdoerfer, 2018)

Only Geissdoerfer definition directly links CBM to SBM.

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Study conducted by **WOOD.BE**
for the CEO project
(Interreg Project under Grant agreement 41-243-22)

THANKS