



HOLOTOPIA

Fashion Shouldn't Cost the Earth

A Sustainability Summary

2023





HOLOTOPIA is a fashion collective dedicated to aligning designers, consumers, and manufacturers with the United Nations Sustainable Development Goals.

Holotopian Garments ethically activate reverence for Life through fostering wisdom aligned with SDGs for nurturing ocean abundance within planetary boundaries.

Sustainability realizes equilibrium within/between humanity and Earth's systems aligning Life's abundance within means of our shared home. It nurtures wisdom recognizing humanity as participants within, not owners of, a single bountiful belonging flourishing by wisdom greater than our own.

Sustainable development meets human needs according to Earth's intelligence - realizing expanding civilization within limits nourishing future generations' thriving. It awakens reverie remembering humanity as members within, not masters of, Life's greater web upholding all beings according to our planet's higher purposes.

Sustainability births hope for flourishing beyond Anthropocene by activating imagination for what humanity's conscious evolution might cultivate within storytellers -so tales birth wisdom birthing collective will towards alignment with abundant Life within limits of our shared planetary home.

The following pages provide our perspective and stance on sustainability in our quest to achieve circularity.

3 Areas of MOTIVATION

Logic, emotion or instinct can be the drivers

THE ECOLOGIST

Sees the human race and planet as one entity. Nature and humanity have an inherent value and should be protected because of that.

THE ENVIRONMENTALIST

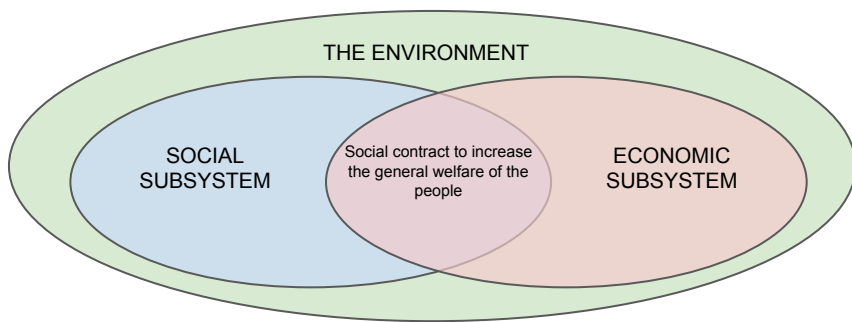
Sees nature and the planet as separate from the human race. Humans should have stewardship over the world, which should be preserved so that humans can survive and evolve.

THE ECONOMIST

Understands the measures of sustainability from consumer led culture treating finite resources as an income, but has faith that market forces and business will avert crisis with technological achievement.

SUSTAINABILITY

Sustainability is a characteristic of a process or state that can be maintained at a certain level indefinitely. Sustainability focuses on providing the best outcomes for both human and natural environments now, and indefinitely into the future.



ECO DEVELOPMENT

An approach to development aimed at harmonising social and economic objectives with ecologically sound management, in a spirit of solidarity with future generations (Sachs 1978).

DEFINED

of 'essential human needs', participation, environmental considerations, and the unifying principle of 'self-reliance', understood as not just freedom from the structural dependence on other nations, but freedom for the individual from the pressures of political powers or transnational corporations (Glaeser 1984, pp25–28).

KEY CHALLENGE

"Developing" aspirations of 'modernisation', and the creation of a 'new international economic order', as more important than, and incompatible with, a basic needs approach (Arndt 1987, pp104–111).

ECO DEVELOPMENT PHILOSOPHY (basic needs approach) is a, "different, environmentally prudent, sustainable, and socially responsible growth" (Glaeser 1984, p216; Berr 2015). (**VERSUS**) Daly and Mishan who suggested no-growth, and slow-growth economies (Daly 1973; Mishan 1977).

By the 1980s, the early environmental movements had lost momentum, as the wave of the radical social movements broke and rolled back (Van Der Heijden 1999).

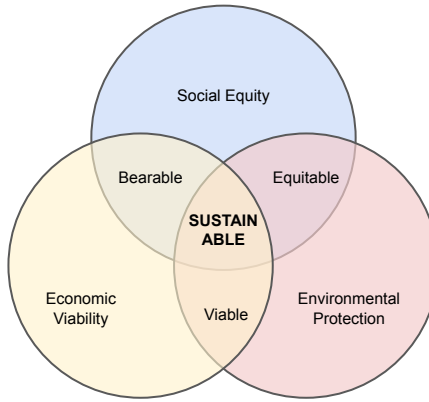
sustainable development... seeks ... to respond to five broad requirements:

1. integration of conservation and development
2. satisfaction of basic human needs
3. Achievement of equity & social justice
4. provision for social self determination and cultural diversity
5. maintenance of ecological integrity" (Jacobs et al. 1987).

...elaborated explicitly to emphasise the "multi-dimensional nature" of sustainable development (UN 2007).

The report of the 2002 Earth Summit prescribes the need to "promote the integration of the three components of sustainable development—economic development, social development and environmental protection—as interdependent and mutually reinforcing pillars" (UN 2002, p8).

3 AREAS OF SUSTAINABILITY



SOCIAL EQUITY

“genetic diversity, resilience, biological productivity”

The ‘social’ perspective concerns itself with the “continued satisfaction of basic human needs” of individuals,

ECONOMIC VIABILITY

“satisfying basic needs (reducing poverty), equity-enhancing, increasing useful goods and services”

‘ecological’ focuses on the “continued productivity and functioning of ecosystems’ as well as the “protection of genetic resources and the conservation of biological diversity”

ENVIRONMENTAL PROTECTION

“cultural diversity, institutional sustainability, social justice, participation”

the “elusive” ‘economic’ definition entails resolving “the limitations that a sustainable society must place on economic growth” (pp716–717).

BEARABLE:

‘community’ which is ‘convivial’,

sociocultural which encompasses equity and participation (Munasinghe 1993).

VIABLE:

an ‘environment’ ‘viable’, and ‘livable’ with respect to the community, and an economy which is ‘adequately prosperous’,

the economic which maximises income whilst maintaining capital stock,

EQUITABLE:

‘equitable’ with respect to the Community and ‘sustainable’ with respect to the environment.

The ecological which seeks to preserve biological and physical systems,

GOAL:

development to a “system of economic activity that enhances human development while being environmentally and socially sustainable” (p43).

OBJECTIVE:

The objective of sustainable development then is to “maximise the goals across all these systems through an adaptive process of **trade-offs**” (p104). **compromise**

From the late 1990s, Elkington’s ‘triple bottom line’ (TBL)

accounting method gained traction with the publication of his popular book ‘Cannibals With Forks’ (Elkington 1997). Drawing strong parallels with three pillars, the traditional financial ‘bottom line’ of a corporation is complimented by bottom lines for social and environmental performance, termed ‘people, planet, profit’,

CHALLENGE:

It has been argued that the TBL jargon is inherently empty, vague, and misleading (Norman and Macdonald 2004), paradoxically perpetuating business-as usual approaches (Milne and Gray 2013).

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“integrate”, “balance”, and “reconcile” the pillars without necessarily articulating what this means in practice; whether this requires uncomfortable ‘trade-offs’ or not appears to depend on the level of optimism the work in question is pitching for.

6 PRINCIPLES

CARBON

ENVIRONMENT

COMMUNITY

WELL BEING

CONNECTIVITY

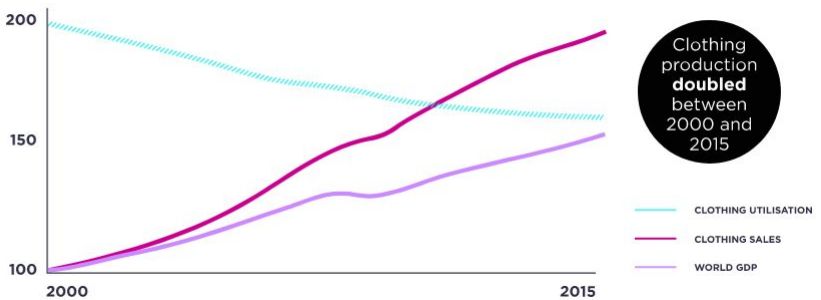
GREEN
ECONOMY

17 SDGS

The 17 Sustainable Development Goals set forth in that plan redefined how the global community would work together to tackle poverty and improve living standards while also protecting the environment. They set out to accelerate progress in critical areas such as child survival, education and safe water, setting ambitious targets. End preventable child and maternal deaths, for example; end extreme poverty, end child marriage, to name a few, and not just for some, but for all, including the poorest and most disadvantaged.

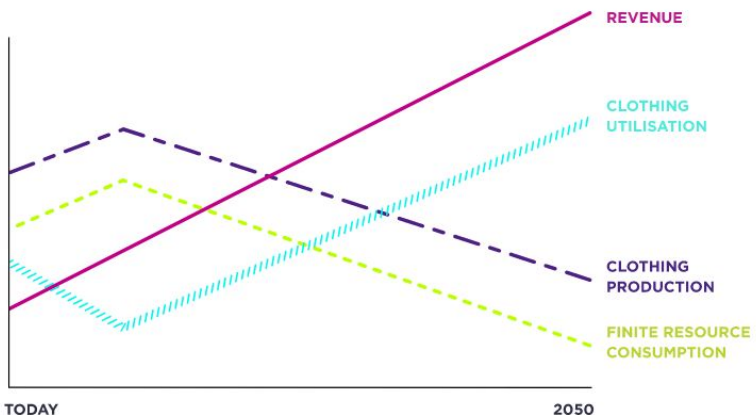
PROBLEM

- Between 2000 and 2015, clothing production doubled, while over the same period utilisation – the number of times an item of clothing is worn before it is thrown away – decreased by 36%.
- This trend led to the global fashion industry producing around 2.1 billion tonnes of greenhouse gas (GHG) emissions in 2018 – 4% of the global total.
- due to ever lower prices and lost revenues – from overstock, stockouts, and returns – profit margins of the world's leading apparel retailers decreased by an average of 40% from 2016 to 2019
- This was exacerbated in 2020 by the impacts of the Covid-19 pandemic, which highlighted the fragility of fashion's supply chains and saw the industry suffer a staggering 90% profit decline compared to 2019.



SOLUTION

- By decoupling revenues from raw material production – through business models such as resale, rental, repair and remaking – greenhouse gas emissions, pollution, and biodiversity impacts can all be reduced.
- Resale, rental, repair and remaking are already worth more than USD 73 billion – and growing
- Since 2019, and despite the global Covid-19 pandemic, seven resale and rental platforms – Depop, Rent the Runway, The Real Real, Vinted, Poshmark, Vestiaire Collective, and ThredUP – have reached billion-dollar valuations.
- These business models have the potential to grow from 3.5% of the global fashion market today to 23% by 2030, becoming a USD 700 billion opportunity, while providing significant environmental savings from increased use and reduced production.



CIRCULAR BUSINESS MODEL CATEGORIES

MORE USE PER USER

MORE USERS PER
PRODUCT

BEYOND PHYSICAL
PRODUCTS

CIRCULAR BUSINESS MODELS

RENTAL

RESALE

REPAIR

REMAKING

KEY ADVANTAGES OF CIRCULAR MODEL

- Circular business models offer both revenue and cost benefits
- Provide multiple revenue streams by enabling businesses to offer new services, such as restoration, customisation and tailoring
- Revenue benefits include increased loyalty, access to customer and product use data and increased customer base
- Costs can be reduced due to savings from better resource productivity and risk reduction (e.g. improved inventory management).

To successfully develop circular business models, their revenue must be decoupled from production and resource use

BARRIERS TO DECOUPLING

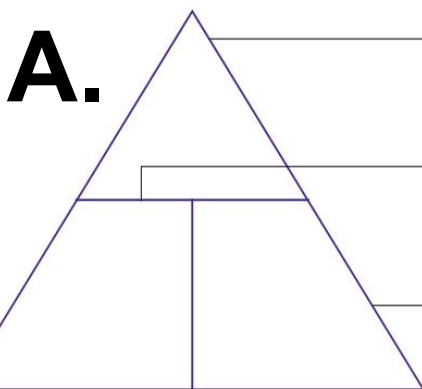
- BOOMING models like resale and rental do not always result in environmental benefits
- The industry measure of success is often based on sales volumes;
 - **CONSIDER:** *incentivise product take-back for resale, remaking or recycling by offering vouchers for new products, which results in growth of the linear business*
- Products are not always designed to withstand the level of use circular business models require
- An occasion dress offered via a rental model that looks faded or out of shape after it is cleaned twice will not provide a viable option, economically or environmentally
- Current supply chains are optimised for predictable, one-way production and distribution,
- Whereas circular business models require local and global networks that facilitate services such as cleaning, repair and remaking



4 KEY ACTIONS FOR BUSINESSES

To make sure our business models are circular, and to maximise the positive outcomes, businesses, supported by policymakers, we take four key actions

- A. Rethink performance indicators, customer incentives, and customer experience
- B. Design products to be used more and for longer
- C. Co-create supply networks
- D. Scale a wider range of circular business models



OPTIMISE PERFORMANCE INDICATORS FOR AN OUTCOMES-BASED APPROACH

Adopting new measures of success by optimising performance indicators for the outcomes of circular business models, making these a core strategic priority, central to all business activities.

RETHINK INCENTIVES AND REWARDS

Intentionally rewarding customers who opt to engage in circular business models instead of linear ones. This means, explicitly encouraging customers to engage in models that increase use, with the added opportunity to benefit from greater access to customer data and preferences, and to build brand loyalty.

ELEVATE CUSTOMER EXPERIENCES

Elevating the circular business model experience, making it desirable through a better user experience than buying new (e.g. through convenient delivery, personalised service) so that it explicitly serves and encourages customers to transition from linear to circular business models.

The fashion industry is predominantly linear, and performance indicators serve this linear model – that is, to increase sales of products made from virgin materials. This discourages the uptake of circular business models and limits their ability to displace production of new products.

Consider:

- Customer incentives
 - swap products as well as purchase, incentivising users to engage with the platform even when not spending money, while increasing the use of clothes

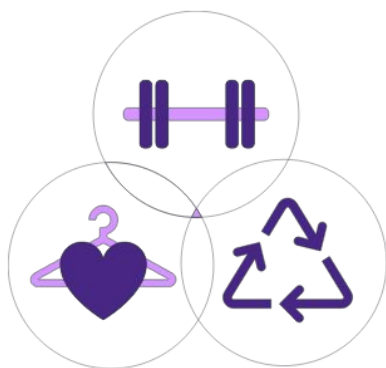
Examples of businesses putting this into practice

- [FARFETCH's](#) online platform provides convenient ways for users to filter and find 'vintage' pieces, donate to resell through a third party platform (FARFETCH Donate x Thrift+), prolong the use of their shoes & handbags ('Farfetch Fix') and also resell them ('Farfetch Second Life').
- [Ralph Lauren](#) has introduced a rental subscription service, 'Lauren Look'. The subscription service starts at USD 125 a month and includes delivery, cleaning and suggestions from expert stylists.
- US online consignment thrift store [thredUP](#) offers users services to make resale a convenient option. Sellers get a 'clean-out' kit and their items are sorted, listed, and delivered for them. Such a user experience has increased the number of repeat users on the platform with thredUp reporting that 80% of orders come from repeat buyers.
- [Vestiaire Collective](#), a resale platform that encourages local peer-to-peer sales, has aimed to create a user experience on par with prominent e-commerce brands while controlling and authenticating all items once sold.
- Resale platform [Depop](#) highlights carefully curated product assortments by their users and points users to specific profiles based on their style to encourage more peer-to-peer transactions.

B. DESIGN PRODUCTS TO BE USED MORE FOR LONGER

To maximize the economic and environmental potential of circular business models, businesses need to design products that are physically durable, emotionally durable, and able to be remade and recycled at the end of their use.

1. **Physical durability:** Combining material choices and garment construction, including component reinforcement, in order to create highly durable products that can resist damage and wear over long periods of time
2. **Emotional durability:** Applying strategies that increase and maintain a product's relevance and desirability to a user, or multiple users, over time
3. **Remake and recyclability:** Designing products so that they can be disassembled and their components and materials be remade or recycled into new products



All three design considerations are crucial to the development of products for circular business models.

Consider:

- There are likely to be some trade-offs to these design considerations due to factors such as current technologies and material solutions
- It is essential that design decisions are specifically tailored to maximise the economic and environmental outcomes of each individual business model.

B.1 Designing for physical durability

Physical durability is a key factor in the success of many circular business models. For example, a high-turnover rental model will not be effective unless the rented items have been designed to withstand frequent cleaning. In order to create highly durable products that can resist damage and wear over long periods of time requires designers to carefully combine material choices and garment construction, including component reinforcement.

Examples of businesses putting this into practice

- W. L. Gore and Associates assesses the real-life performance of its products and collects feedback, as well as conducting lab tests that mimic real-use aging. The business uses this to inform the design of products, such as increasing the durability of components that fail first.
- Lacoste is applying durability standards throughout textile product categories. For this, it has introduced a [product durability protocol](#) as part of its 'Durable Elegance' strategy. It also takes into account customers' habits and concerns, covering both individual components and finished product testing.
- [ERDOS](#) focuses on developing high-quality cashmere products. Their 2019 SHAN collection included "self-cleaning" cashmere which is water and oil resistant and easy to maintain. It uses a weaving technique that doesn't need stitching, saving materials and energy while making the product more durable. Given the high physical durability of their products, ERDOS is able to offer repair and maintenance services (i.e. their 'post-sales care service').

DESIGN PRODUCTS TO BE USED MORE FOR LONGER

B.2 Designing for emotional durability

Emotional durability Clothes also have to maintain their relevance and desirability to customers over time. Emotional durability – which relates to how long people want to use a product – is needed. Physical durability alone is not enough. Emotional durability can be based on factors such as timelessness, rarity, history, and meaning, among other aspects.

An opportunity to extend the emotional durability of an item could be sharing stories about how the product was made to help create attachment. Likewise, offering personalisation services to make products unique for a user can increase the desirability for users to wear that product for years to come.

Examples of businesses putting this into practice

- Beyond Retro focuses on developing and emphasising the uniqueness of their products (e.g. remade products from selected used items). The brand has built a dedicated team in charge of developing theatrical displays in retail stores and curating unique products.
- [Klee Klee](#) shares stories about each of their products so customers can learn where the materials come from, how the garment has been made, and how to take care of it, therefore, helping to create a stronger attachment between the customer and the clothes.
- ARKET selects materials that improve in their look and feel with increased use and provide specific [care guides](#) for those materials, such as [denim](#).

B.3 Designing clothes so they can be remade or recycled

For circular business models to succeed in reducing greenhouse gas emissions long term, new clothing will need to be made from materials that are already in use, and move away from finite virgin resources.

For this to be possible, products need to be designed and made in a way that allows them to be disassembled, remade, and recycled, which means considering how products are constructed, as well as which materials and components are used. This also prevents products becoming waste and can maximise the positive environmental outcomes even further.

Examples of businesses putting this into practice

- For Days makes its garments from 100% cellulosic fabric (predominantly organic cotton) so that they can easily be remade into new garments or recycled once they are worn out. For Days incentivises its customers to return their used garments so that they can remake and recycle
- them in practice.
- For its Circular Series of jackets, [Napapijri](#) simplified the design so that its entire jacket – fabric, filling and trimmings – is manufactured from one recyclable polymer – Nylon 6. Customers can return products from the Circular Series range after use so that they can be remade and recycled into new products.
- [Looptworks](#) is collaborating with other businesses to repurpose pre- and post-consumer material. For example, they have partnered with the NBA to remake used jerseys into backpacks and crossbody bags. Such partnerships help businesses avoid waste while providing them with a better understanding of how to redesign their products.

C. CO-CREATE SUPPLY NETWORKS

Today, the fashion supply chain and its infrastructure are designed for a one-way flow of products. For circular business models to work, it must be transformed into a supply network capable of circulating products locally as well as globally.

It needs to be economically and technically viable to keep products in circulation meaning they cannot readily be shipped around the world to be cleaned or repaired, to then be resold or redistributed. To effectively circulate products, services will need to be distributed, requiring effective collaboration by all industry actors

Technology can be leveraged to improve multi-way collaboration and move away from one-directional transactions towards mutually beneficial partnerships. For instance, the rise of cloud computing has opened new avenues for collaborative work, allowing factories and fashion businesses to work together from many parts of the world at the same time. This enables them to access relevant data, making for a faster and more effective way of communicating.

C.1 Collaborating to build a distributed supply network

Circular business models provide an opportunity for products and their materials to remain at high value within the economy, but the current one-way supply chain does not facilitate this. Infrastructure for operations such as resale, rental, repair and remaking, which can require handling, sorting, cleaning, repackaging and redistribution, needs to be distributed for circular business models to reduce greenhouse gas emissions effectively. This requires a diverse and highly connected, dynamic network based on mutually beneficial, local and global partnerships between all actors in the fashion system (e.g. manufacturers, retailers, end-users, and collectors).

Examples of businesses putting this into practice

- The Restory offers a shoe and handbag restoration service. It typically works with high-end fashion products and is expanding by partnering with retailers, allowing brands to offer after-care services to its customers (e.g. 'Farfetch Fix', Harvey Nichols). These partnerships are mutually beneficial.
- EverybodyWorld is bridging the gap between customer, supplier and brand, by co-creating designs. Its unisex pair of shoes named 'untitled' is based on a crowdsourced design, made locally and comes with EverybodyWorld's lifetime repair policy.
- Research institute HKRITA are developing a lab in Hong Kong where innovators, researchers, suppliers and brands can meet, test new ideas and scale faster.
- Mobile app Sojo connects its users to local seamstress or tailoring businesses, picking up and delivering items by bicycle.

C.2 Leveraging Technologies

Leveraging technologies to enable multi-way communication, tracking, and traceability will enable smooth exchanges between businesses and service providers to manage processes, such as collection, cleaning, repair, and distribution, needed to make circular business models work.

This could include technologies such as artificial intelligence and blockchain and could allow businesses to more easily share information that facilitates circulation of products. This requires the development of collective business cases, effective data exchange, and transparency.

Examples of businesses putting this into practice

- E-on has launched Circular ID, an industry-wide digital protocol that establishes the essential product and material data (e.g. materials, origin, authenticity, price, style and recycling instructions) to identify and manage products in a circular network. The digital identification of these fashion products can aid in the rental, resale and recycling of clothing and accessories.
- Rental platform [Hirestreet](#) has partnered with reverse logistics provider Advanced Clothing Solutions (ACS) to manage its warehousing and has developed its own white-label technology solution for rentals, Zoa, giving fashion brands the opportunity to add rental of their clothing as an option alongside buying. Brands provide the stock but Zoa takes care of all of the rental technology, cleaning, logistics, and customer service with an option to integrate with warehousing service by ACS.
- Rental and resale logistics provider, [Lizee](#) helps brands and retailers extend the life of their products by launching, managing, and scaling rental and resale business models. Lizee handles the picking, packing, and shipping of products, and facilitation of payments, oversees quality checks for returned products, refurbishing, and more. In so doing, it provides its partners with product data related to use and quality, which they can then leverage to improve their product design.
- Save Your Wardrobe is a tech-enabled wardrobe management platform that leverages online receipts, computer vision, and AI to digitise wardrobes. The platform provides an ecosystem of aftercare services including eco cleaning, repairs, alterations, and end of life services like donation to help users extend the life of their garments with ease.

D. SCALE A WIDER RANGE OF CIRCULAR BUSINESS MODELS

To maximize the economic and environmental benefits we must explore a wider and more diverse range of models by combing where applicable in order to open up new markets that bring greater environmental benefits.

When thinking about new business models, it is helpful to approach the task from an outcomes perspective – what outcomes should a new business model achieve?

Circular business models fall into three categories:

- More use per user
- More users per product
- Beyond physical products

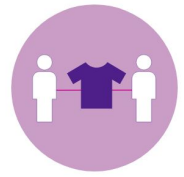


D.1 MORE USER PER PRODUCT

Business models can be designed to enable the customer to wear the product more and for longer. This could include designing products to be physically and emotionally durable, providing services to support long-term use, and empowering users to use their products more and for longer (e.g. tips for DIY customisations).

Examples of businesses putting this into practice

- H&M Group offers a customisation service and publishes tips and guidance for customers to customise items themselves to encourage products being used for longer. H&M Group also launched M.IN.T Care, an initiative providing repair, mending, and washing services. The platform also provides 'do-it-at-home' tips, including useful repair hacks and remake tips, inspiring users to make fashion last longer.
- [Tommy Hilfiger](#) has rolled out different circular business models through Tommy for Life. It takes pre-owned TOMMY HILFIGER and TOMMY JEANS pieces as well as damaged items from retail operations to repair for resale, or remix into unique new styles. Tommy for Life provides the Tommy product teams with data on the most common points of damage of an item, which can then be fed into the design process to create more durable products in the future.



D.2 MORE USERS PER PRODUCT

Business models in this category are designed to facilitate the movement of products from user to user, so the products are used more. This could involve designing platforms and/or services. This category can include a range of business models, from those that shift a product from user to user after only one wear, to those that move a product on after a significant period of use.

Models that go beyond physical products have a huge opportunity to increase the environmental opportunities of circular business models. On a like-for-like comparison, for example, producing one digital product vs one physical product eliminates material waste and reduces greenhouse gas emissions by 97% while, on average, using 3,300 fewer litres of water. It also eliminates physical transport of clothing, resulting in additional greenhouse gas emissions savings.

Examples of businesses putting this into practice

- [GANNI](#) is combining rental, remaking and resale business models. It launched rental platform, 'GANNI Repeat', as a first trial in Denmark in 2019, which has now been expanded in the UK and US, and has introduced remade products from to the platform from the brand's GANNI's previous collections. Recently, GANNI also partnered with luxury resale site Vestiaire Collective to work on keeping products in circulation together.



D.3 BEYOND PHYSICAL PRODUCTS

Business models in this category move entirely away from the use of physical products and can include alternatives like digital clothing, or services that replace, enhance and complement customers' fashion needs and aspirations.

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Examples of businesses putting this into practice

- [DressX](#) is a digital fashion multi-brand retailer, providing users with digital clothes that they can purchase to be digitally worn immediately. Users receive the picture of themselves with the bought look, which they can use as many times as they want. Users tend to use the images in their social media platforms and to curate their own virtual identities. As such, DressX provides a solution for social media content creation without the need for physical products.
- [The Fabricant](#) collaborates with physical brands such as Napapijri and Tommy Hilfiger to digitise their marketing campaigns and collections so that products don't need to be made for them. It also gives away many of its 3D pattern files to its audience of digital creators, encouraging them to create their own iterations of digital garments. The Fabricant works with its brand partners to create digital solutions that are inclusive by design while avoiding the production of items that would not have been used for long.

Combining circular business models

There is great potential in combining business models from these categories. For example, combining resale (which falls under the more users per product category) and repair (which falls under the more use per user category) could help users keep second-hand purchases in use for longer. Such a model could also be combined with a digital model (from the beyond physical products category), for example to enable a user to 'try on' an item before buying it, therefore ensuring it is used by the buyer and not wasted after purchase.


OPPORTUNITIES



To thrive - not just survive, the fashion industry needs to radically redesign its operating model by transitioning to a circular system.



ADDITIONAL
DEEP DIVE FOR
W/O 1/9/23



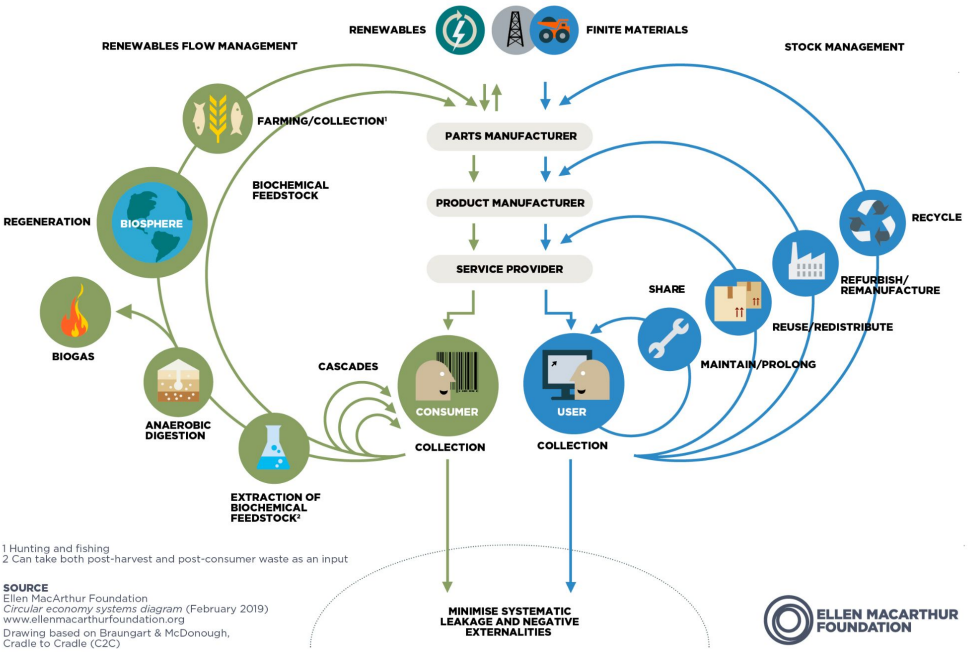
CASE STUDIES

PUBLICATIONS

CIRCULTICS

VISUALIZING THE CIRCULAR ECONOMY

The circular economy system diagram, known as the butterfly diagram, illustrates the continuous flow of materials in a circular economy. There are two main cycles – the technical cycle and the biological cycle. In the technical cycle, products and materials are kept in circulation through processes such as reuse, repair, remanufacture and recycling. In the biological cycle, the nutrients from biodegradable materials are returned to the Earth to regenerate nature.



1 Hunting and fishing
2 Can take both post-harvest and post-consumer waste as an input

SOURCE
Ellen MacArthur Foundation
Circular economy systems diagram (February 2019)
www.ellenmacarthurfoundation.org
Drawing based on Braungart & McDonough,
Cradle to Cradle (C2C)

