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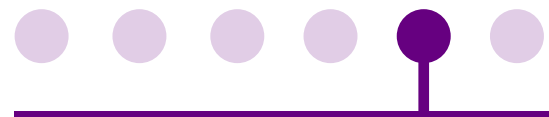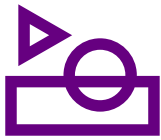# ACCESSING CONSUMER PRODUCTS THROUGH BETTER MEANS

Consumer products are frequently underutilised – often being used just a few times before being stored or discarded. This structural waste can be countered by new business models and changes in consumer habits that focus on access rather than ownership. New consumption models can make high-quality products accessible to more people and reduce the underuse and/or discarding of products. Access can be facilitated through a range of sharing and reuse models, often digitally enabled, that benefit people, business, and the health of the wider system.

CASE FOR CHANGE

80%

A power drill is used an average of **18 minutes** in its lifetime[1]

80% of household items are used less than once a month[2]

$875bn

An average US household contains **USD 7,000** worth of unused items. This adds up to **USD 875 billion** worth of stuff that could be put back into the US economy alone[3]

1,000%

Self-storage has increased by **1,000%** over the past three decades[4]

By 2025, **1.8 billion people** will join the global consuming class and directly fuel further linear resource consumption, unless changes are made.[5]

70%

In China, the number of times clothes are worn on average has reduced by **70%** over the last 15 years[6]

EXAMPLES OF CIRCULAR ECONOMY OPPORTUNITIES

Accessing products through product-as-a-service business models

New business models can offer temporary access to products rather than selling them outright through subscription and pay-per-use models. Such models can also serve more customers with a smaller stock of products. Two models are typically used: sharing and pay-per-use. These are not necessarily incompatible: for example, a product such as a washing machine can be made available to various users to share but payment is on a per-use basis. While such business models are not always new, they can now be significantly optimised through smart technology, increasing convenience and keeping much better track of the product's condition. This type of business model has an important upstream effect on the product's design as it creates a business incentive to create products that perform better for longer to enable additional revenue and reduce maintenance needs.

Accessing pre-owned products through peer-to-peer models

While the reuse market for consumer products is not a new invention, it is far from realising its full potential. Reselling pre-used items helps maximise their value and increase the affordability of products.[7] Making underused products available for use (through resale, renting or donation) is also key to decreasing demand for new products and therefore demand for resources. Online sharing platforms and peer-to-peer online resale platforms makes reuse increasingly easier. Artificial intelligence (AI) can be used to optimise these platforms' services by enabling product classifications, and dynamic pricing, by taking into consideration market conditions and product-specific characteristics such as age and brand.[8]

EXAMPLES OF WHAT URBAN POLICYMAKERS CAN DO

City governments can include specifications in **public procurement** tenders on maintenance, take-back, and reuse that support the emergence and scaling of new business models, and can lead to public finance savings and improved resource management. Through **awareness raising** and **convening** initiatives, city governments can help urban stakeholders to share, swap, lease, and donate products (such as Gothenburg's smart-map). Increased sharing and leasing will also increase the need for logistics services, which ideally will be **planned** into the city's overall mobility system to alleviate potential negative impacts such as increased congestion.

To explore further see **Policy Levers**
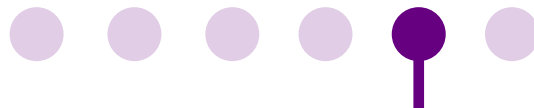
EXAMPLES OF LINKS TO OTHER SYSTEMS AND PHASES

Mobility: Accessing The viability of a performance-focused product model is closely linked to efficient, low-impact logistics services for the delivery, servicing, and collection of products and materials.

Products: Designing Appropriate product design is also key to ensuring the viability and attractiveness of performance-based business models.

Buildings: Planning Decluttering homes and offices, through a reduction in storage needs, can free up built space for alternative uses.

CASE EXAMPLES

Leveraging app and AI technology for instant buy-back of every purchase

Stuffstr, a London-based social enterprise, is partnering with retailers to provide instant buy-back of every item sold. Retail customers who log into their accounts on the retailer's app or website can review their purchases from the past five years, and are offered an instant buy-back price on every item, regardless of condition. Items are picked up for free the same day, and customers are paid instantly in the form of vouchers at the originating retailer as soon as the items are received. Stuffstr then resells the items through existing secondary markets, and responsibly recycles any items that cannot be resold. Stuffstr uses AI algorithms to optimise the prices being offered to ensure they never exceed the net return on the resale of the items. After conducting a successful pilot, Stuffstr and John Lewis will be launching the service more broadly with additional brands and retailers in 2019.[9]

Online and physical libraries of things

Like traditional libraries, users can borrow items at low or no cost for a defined period of time. These schemes are especially appropriate for items people use rarely, such as DIY and gardening tools, camping equipment or formal wear. In Toronto, a small non-profit tool library offers local residents access to more than 7,000 tools that are maintained and repaired by a local crew of volunteers. Many of the tools have been donated by residents who are keen to clear space in their homes.[10] Online borrowing platforms also exist, like Fat Llama, that facilitate peer-to-peer lending, with insurance for lenders that is covered by the platform.[11] Many traditional libraries are also expanding their services: in New York, office wear is lent out to people going to job interviews – combining increased access to clothing with support to get into employment.[12]

Household items as a service

Items such as clothing and furniture can be expensive investments, especially for those who need to change them frequently. That is why many new product subscription companies are experiencing significant growth. Vigga, a Danish company, offers baby and maternity clothing, that is highly durable and non-toxic, meaning it is safe, reusable, and recyclable. The company estimates that this model, where each item can be used by around 10 families before being recycled into new clothes, reduces waste by around 80%.[13] Other companies offer entire fit-outs for homes and offices. STRATA, for example, provides turnkey furniture solutions for entire rooms on a subscription basis – all optimised through modular design principles that support customisation, reconfiguration, reuse, and refurbishment.[14]

Sharing smart-map brings city together

The City of Gothenburg has, together with local residents, developed a smart-mapping tool, Smarta Kartan, which shows where residents can find things to hire, borrow, share, and swap. It is helping to bring people together, change their behaviour, reduce consumption-based carbon emissions, and inspire new services. Within six months, 10,000 inhabitants had visited the smart-map and the 100 featured initiatives identified the map as a crucial asset and contributor to their activities. By raising the visibility of the city's community resources, the smart-map has already led to more collaborations between existing sharing projects, as gaps have been identified and new ideas developed. Next on the agenda is making the map open source to allow other cities to replicate the framework.[15]
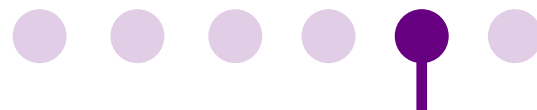
EXAMPLES OF BENEFITS

ECONOMIC PRODUCTIVITY

Creating new profit potential through clothing rental

The online rental of clothes presents an economic opportunity of ~USD 200 in operating profit per renter – greater than that offered by online retail sales.[16]

Decreasing cost of access

Increased utilisation of durable textiles will realise the greatest benefits in total cost of access. In Chinese cities, such efforts could generate USD 80 billion (CNY 0.5 trillion) in savings by 2040.[17]

HEALTH AND ENVIRONMENT

Reducing CO_2 emissions through longer use of clothes

By doubling the number of times a garment is worn, CO_2 emissions could be reduced by 44%.[18]

Reducing CO_2 emissions through printing-as-a-service models

Printing as a service in which the user pays per print and can return old ink cartridges for recycling through a smart take-back scheme, can reduce the carbon footprint of cartridges and their disposal by up to 84%.[19]

COMMUNITY AND SOCIAL PROSPERITY

Lowering access barriers

By making everyday products more affordable through resale, renting, and donation models, more people will have the opportunity to increase their quality of life, and more business opportunities will arise, without increasing demand for virgin materials.[20]

**Business cost savings while benefiting local communities**

By using Globechain's platform to pass on unwanted office furniture to the charity Growing Networks, the company Telefonica saved around GBP 3,000 in landfill charges and skip hire costs. The charity also saved between GBP 3,000 and GBP 4,000 on the cost of new furniture.[21]

RESOURCE USE

Reducing need for new products by renting clothing

Per renter per year, online rental of clothes can result in 14 fewer garments being produced and disposed of, equivalent to net water savings of 37 m³ and net material savings of USD 38 per person.[22]
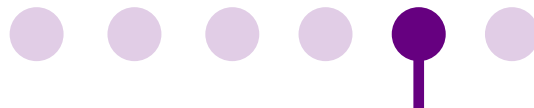
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