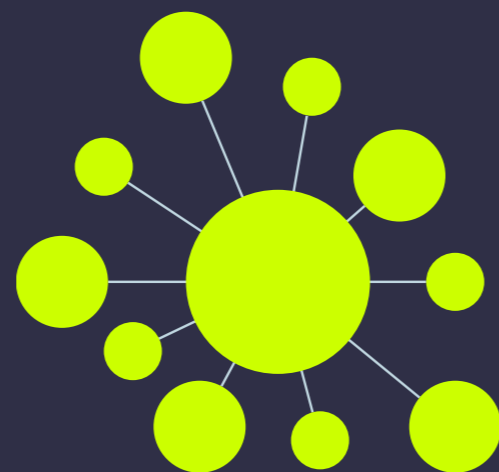


10

circular investment opportunities for a resilient recovery



Built environment

Shaping a liveable, cost-effective, and low-carbon built environment

- 1 Renovation and upgrade of buildings
- 2 Building materials reuse and recycling infrastructure



Every **EUR 1** invested in energy-efficiency renovations can yield **EUR 5** in public finance returns.¹



Utilising recycled or reused steel for building construction could generate up to **25%** in material cost savings per tonne of steel.²

2 million energy-efficient homes
=
2 million new jobs

Retrofitting **2 million homes** for energy-efficiency could create nearly **2 million new jobs**.³



The processing of recycled aggregates compared to virgin ones could reduce GHG emissions by **40%** or more.⁴

Mobility

Shaping an interconnected, low-carbon, and resilient mobility system

- 3 Multimodal mobility infrastructure
- 4 Automotive refurbishment, remanufacturing, and repair infrastructure



Multimodal mobility systems could bring **USD 1.6 trillion** in benefits in **2030** for **China**, assuming 42% of all car kilometres were made by shared vehicles.⁵



The remanufacturing of vehicle parts can increase skilled labour requirements by up to **120%**.⁶



Multimodal mobility systems reduce **global** CO₂ emissions by **70%** or 0.4 billion tonnes of CO₂ in **2040**.⁷



The number of EVs on the road is expected to reach almost **10 million this year**, as sales grow despite the Covid-19 pandemic.⁸

Plastic packaging

Shaping a more competitive and less polluting plastic packaging industry where plastics are kept in circulation

- 5 Innovative reuse business models for plastic packaging
- 6 Plastic collection, sorting, and recycling infrastructure



Replacing just **20%** of single-use plastic packaging with reusable alternatives **globally** offers an economic opportunity worth at least **USD 10 billion**, while saving about **6 million tonnes** of material.⁹



The processing of recyclables can sustain about **20 times more** jobs than landfill, and plastic manufacturers making use of recycled materials, about **100 times more**.¹⁰



Returnable packaging market projected to grow from **USD 37 billion** in **2018** to **USD 59 billion** by **2026** (across industries).¹¹



Reducing growth in plastic production and consumption can avoid **one-third** of **global** projected plastic waste generation by **2040**.¹²

Fashion

Shaping a competitive and low-carbon fashion industry that promotes increased utilisation

- 7 Rental and resale business models for clothing
- 8 Clothing collection, sorting, and recycling infrastructure



Compared to buying new, one pre-owned purchase is said to save on average **1kg** of waste, **3,040 litres** of water, and **22kg** of CO₂.¹³



The lost value of textile waste amounting to more than **USD 100 billion** annually could be retained, by capturing and recirculating materials.¹⁴



The secondhand market is projected to reach nearly **twice the size** of fast fashion by **2029**, with resale models expected to drive the increase (growth projected at **414%** in the next five years)¹⁵



71% of customers are expressing a greater interest in circular business models, such as rental, resale, and refurbishment, as well as investing in higher quality apparel **following the pandemic**.¹⁶

Food

Shaping a resilient, healthy, and food-secure food system

- 9 Tools enabling farmers to shift to regenerative agricultural production
- 10 Food surplus and by-product collection, redistribution, and valorisation infrastructure



Spending **USD 78-116 billion** (on accelerating the adoption of regenerative annual cropping) could save **USD 2.3-3.5 trillion** in lifetime operational costs.¹⁷



USD 700 billion in environmental costs caused by the food waste created in the current system could be avoided.¹⁸



72% of Europeans have reported a greater willingness to put effort into healthier eating in the future.¹⁹



Reducing edible food surplus and increasing the composting of inedible by-products and green waste could save **1.7 billion tonnes** of CO₂ annually.²⁰

References

- 1 Copenhagen Economics, *Multiple benefits of investing in energy efficient renovation of buildings: Impact on Public Finances* (5th October 2012)
- 2 ARUP, *The Circular Economy in the Built Environment* (September 2016)
- 3 In a European country of 50-70 million people. Estimate based on deep retrofit (including heat pumps). McKinsey & Company, *How a post-pandemic stimulus can both create jobs and help the climate* (27th May 2020)
- 4 Ellen MacArthur Foundation, *Circular economy in India: Rethinking growth for long-term prosperity* (5th December 2016)
- 5 Ellen MacArthur Foundation and ARUP, *The circular economy opportunity for urban and industrial innovation in China* (2018)
- 6 International Resource Panel and United Nations Environment Programme, *Re-defining value: the manufacturing revolution - summary for policymakers* (2018)
- 7 Only if also designed for durability. Ellen MacArthur Foundation & Material Economics, *Completing the picture—how the circular economy tackles climate change* (2019)
- 8 International Energy Agency, *Electric car sales this year resist Covid-19's blow to global car market* (15th June 2020)
- 9 Ellen MacArthur Foundation, *The new plastics economy: catalysing action* (2017)
- 10 Tellus Institute with Sound Resource Management, *More jobs, less pollution: growing the recycling economy in the U.S.* (2011); Institute for Local Self-Reliance, *Recycling means business* (1st February 2002)
- 11 Reports and Data, *Returnable packaging market by raw materials, by types, by end-users and segment forecasts, 2016-2026* (September 2019)
- 12 Pew Charitable Trusts and SYSTEMIQ, *Breaking the plastic wave: A Comprehensive Assessment of Pathways Towards Stopping Ocean Plastic Pollution* (2020)
- 13 Farfetch, QSA, ICARO and London Waste and Recycling Board, *Understanding the environmental savings of buying pre-owned fashion* (18th June 2020)
- 14 Estimate based on Circular Fibres Initiative analysis on the share of materials and on a price of USD 2.8/kg for cotton yarn and USD 1.7/kg for polyester yarn (see <http://www.globaltexassociates.com/price.html>); Ellen MacArthur Foundation, *A new textiles economy: redesigning fashion's future* (28th November 2017)
- 15 Market data analysis was done in April, 2020 and includes the impact of Covid. thredUP, *2020 resale report* (June 2020)
- 16 Global Fashion Agenda and McKinsey & Company, *CEO Agenda 2020: COVID-19 edition* (19th May 2020)
- 17 Project Drawdown, *Regenerative annual cropping*
- 18 Food and Agriculture Organization of the United Nations, *Food wastage footprint - full-cost accounting - final report* (2014)
- 19 Based on a survey of 23,000 people conducted by FMCG Gurus in April 2020. Food Navigator, *Is coronavirus changing how we eat?* (11th May 2020)
- 20 Ellen MacArthur Foundation and Material Economics, *Completing the picture - how the circular economy tackles climate change* (26th September 2019)