

Towards a circular economy for textiles

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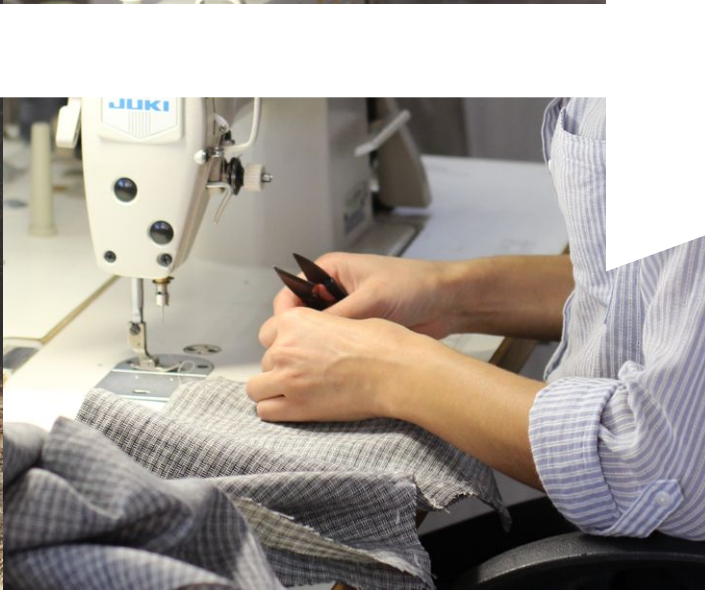
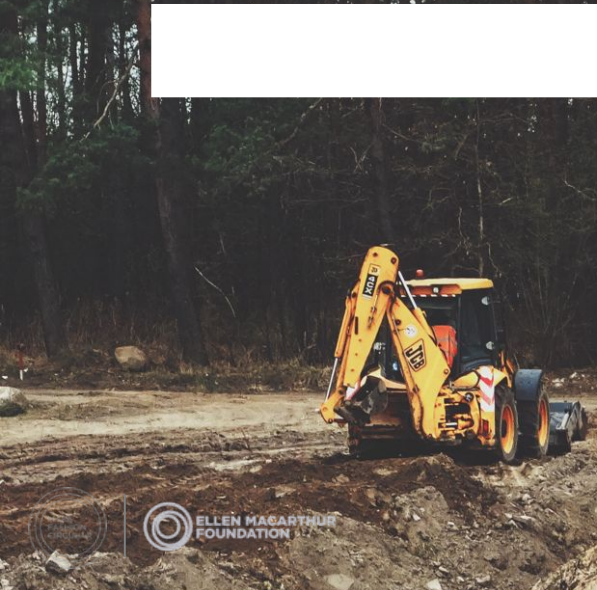
Presented by
Valérie Boiten



TAKE

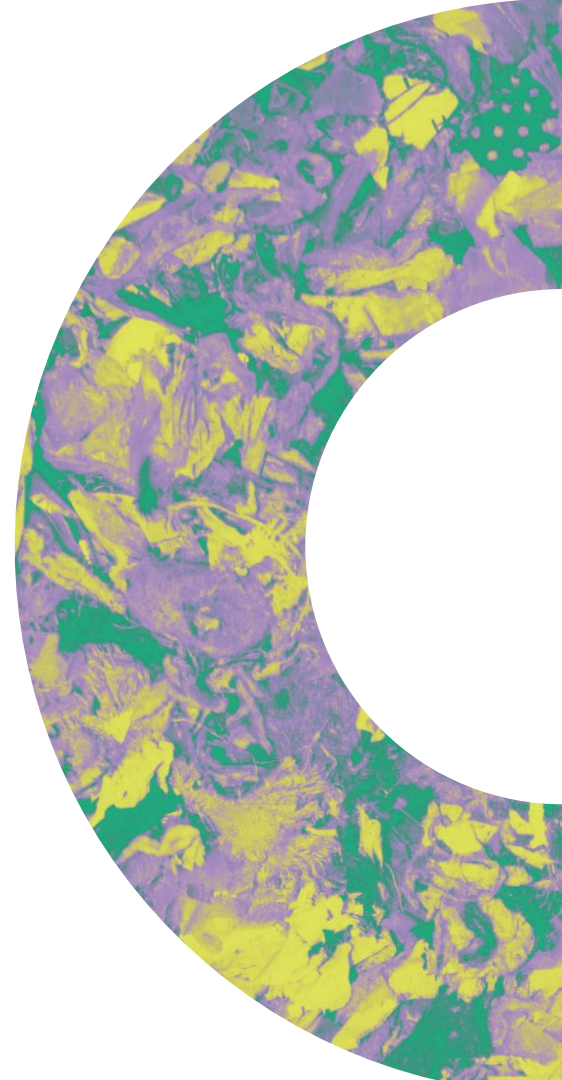
MAKE

WASTE



ELLEN MACARTHUR
FOUNDATION

Today's clothing system puts pressure on resources, pollutes the environment and creates negative societal impacts.



THE IMPACT OF THE FASHION SECTOR ON THE FIVE DIRECT DRIVERS OF GLOBAL BIODIVERSITY LOSS²²



Land-use change

- At the current pace, by 2030 the fashion industry is projected to use 35% more land for cotton cultivation, forest for cellulosic fibres, and grassland for livestock²³



Overexploitation

- Over 4% of global freshwater withdrawal is linked to the textiles industry, with consumption expected to double by 2030²⁴
- Conventional cotton cultivation – the most water-intensive fibre production process – is often located in already water-stressed regions²⁵



Pollution

- Despite accounting for approximately 3% of total arable land, the production of cotton is estimated to use as much as 16% of all insecticides, 6% of all pesticides, and 4% of all synthetic fertilisers globally, which can degrade soil health, pollute waterways, and endanger biodiversity²⁶
- Out of 2,450 textile-related chemicals studied by the Swedish Chemical Agency, 5% were of high potential concern for the environment due to their capacity to spread globally and bioaccumulate, causing diseases and allergic reactions, and increasing cancer risk²⁷
- An estimated 35% of microplastics in the ocean originate from synthetic microfibre release²⁸



Climate change

- The fashion industry was estimated to account for 4% of global emissions in 2018 – approximately as much as France, Germany, and the UK combined²⁹
- At the current pace, the sector's emissions would nearly double the maximum required to stay on the 1.5°C pathway³⁰



Invasive alien species

- Long-range transport of raw materials and fashion products facilitates the spread of invasive alien species, which can have serious negative consequences for their new environment³¹

Approximately 12 Mt of textiles are placed on the EU market every year.

It is estimated that **more than 8 Mt** of textiles end up in **incineration or landfill** every year in the EU (JRC, 2023).

4-9% of all textile products put on the market in Europe are **destroyed before use** (EEA, 2024).



Vision of a circular economy for fashion

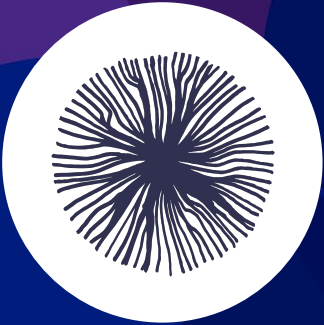
1 used more

2 made to be made again

3 made from safe and recycled or renewable inputs



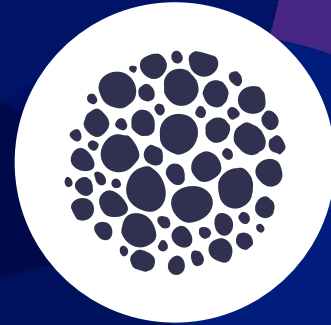




Design



**Business
models**



Infrastructure

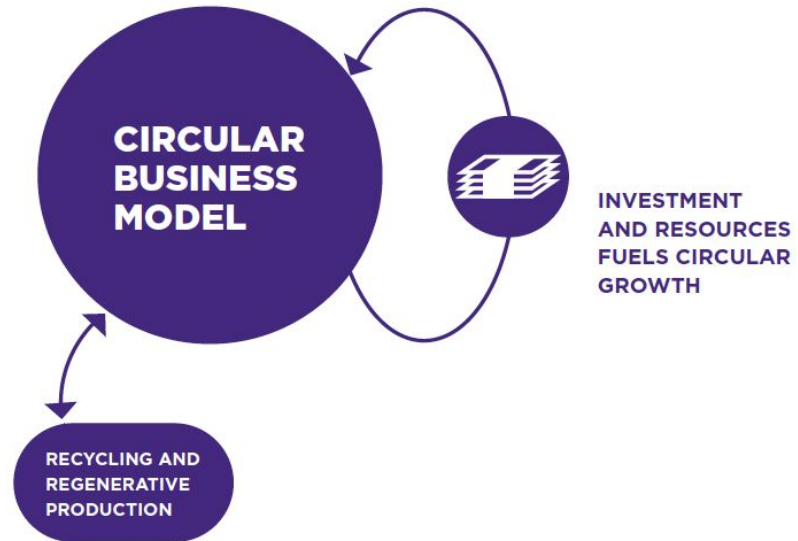
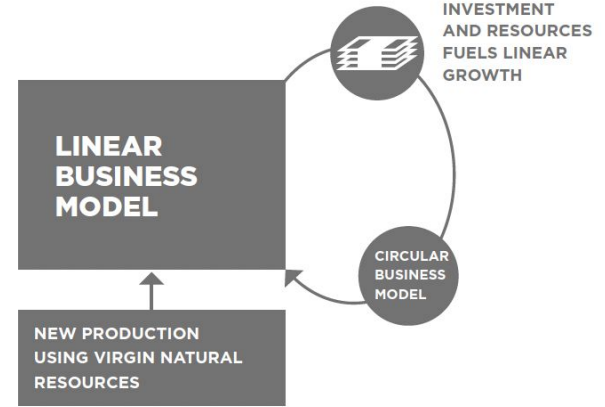
Jeans now



Redesigned jeans



Clothing is generally delivered through linear, single-sale business models, which do not provide for take-back, resale, or repair operations.



EU citizens discard on average **16 kg of textile waste per capita each year.**

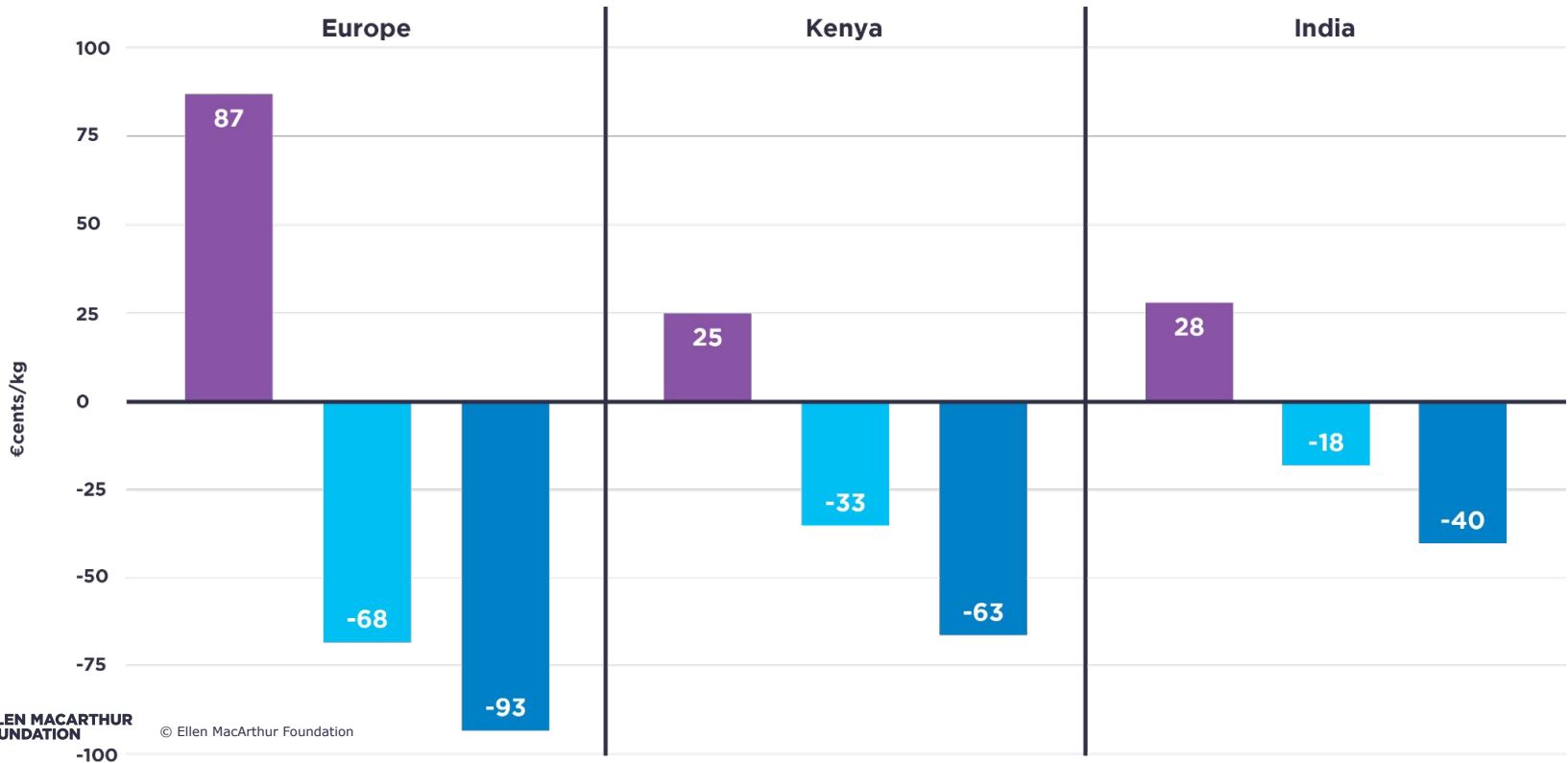
In the EU, the average capture rate is **12% and reaches a maximum of **50%**.**



The business case for sorters in Europe, Kenya, and India

While sorters are able to turn a positive operating margin for reusable clothing, the non-reusable clothing fraction (sold to downcyclers or recyclers) is operating at a loss, based on current market prices. See Appendix F for a detailed breakdown of the values reported in this figure.

■ Margin generated by the reusable fraction ■ Margin generated by the non-reusable fraction ■ Margin generated by the waste fraction



Mandatory, Fee-based **Extended Producer Responsibility**



**EPR provides dedicated, ongoing,
and sufficient funding for separate
collection and sorting**

EPR spurs collective
action towards common
targets for collection,
reuse, and recycling



EPR attracts capital
investments in the
infrastructure needed to
reuse and recycle at scale

EPR creates transparency
and traceability on
global material flows

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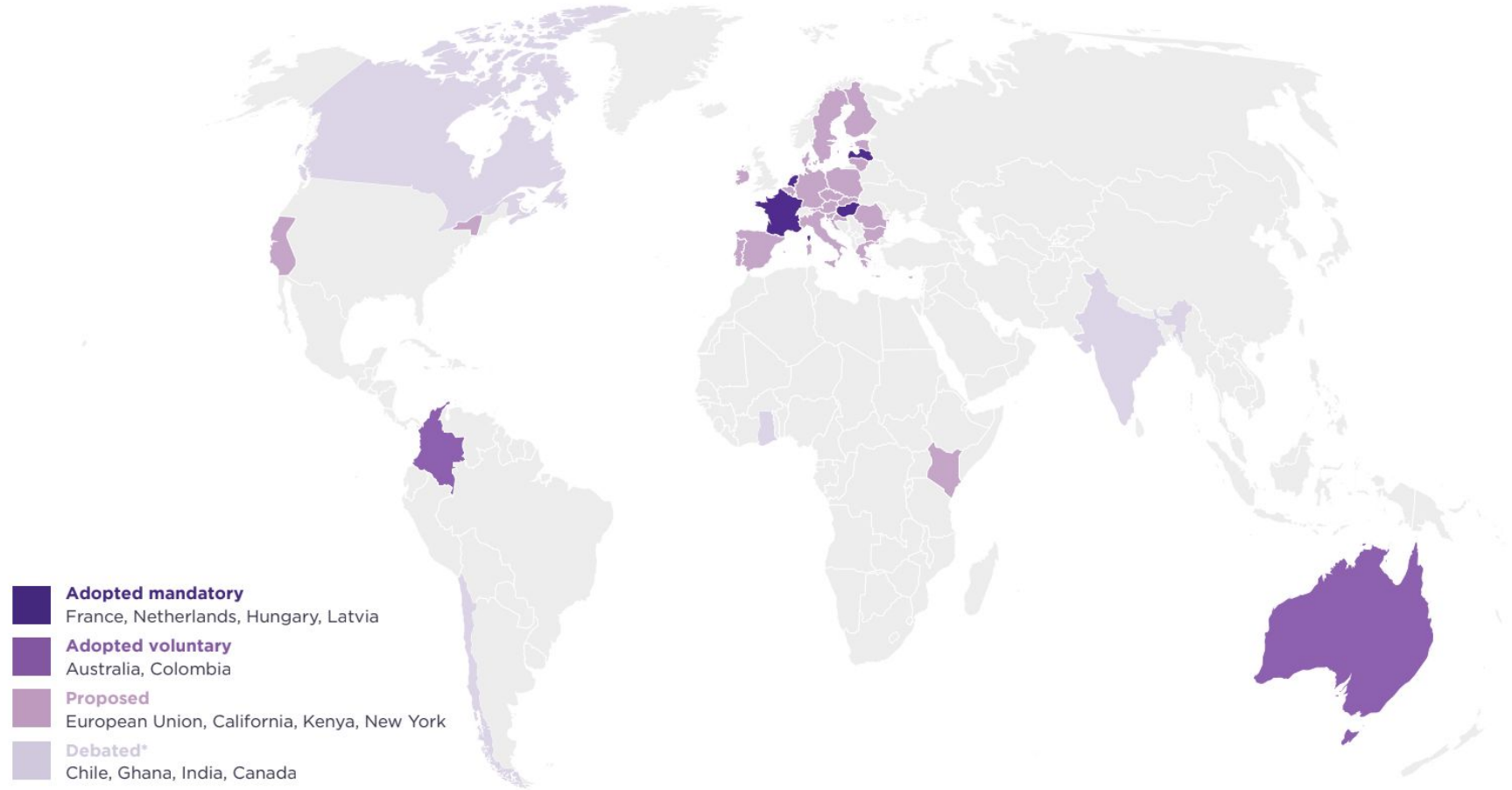


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Figure 4

Map of existing and emerging EPR systems for textiles, globally



How are countries
around the world
exploring and
implementing EPR
policy for textiles?

Five focus countries



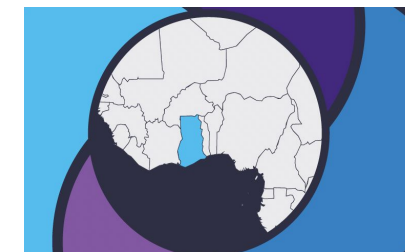
Chile



France



The Netherlands



Ghana



United States

Designing EPR for a circular economy



Stimulate
circular product
design

Extend the use
phase of textile
products

Manage
waste beyond
jurisdictional
borders

Expand the
scope of
externalities
covered

Thank you

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