

A Zero Waste Vision for Fashion

Chapter 1: All We Need Is Less

Towards clothes production and consumption within planetary boundaries

Policy Brief

September 2023

zerowasteurope.eu



Contents

2 Executive Summary

- 4 Why do we need sufficiency?
- 7 Sufficiency in the fashion sector

11 How to reduce: policy options and interventions

- 12 1. Mark legal boundaries
 - 12 Ban the destruction of unsold goods
 - 13 Set waste prevention targets
 - 14 Introduce resource use targets
- 17 2. Employ financial incentives
 - 17 Hold producers accountable
 - 18 Tax virgin resource use
 - 20 Channel investments towards zero waste businesses
- 21 3. Promote a culture of sufficiency
 - 21 Address overconsumption
 - 23 Make repair and reuse the new norm
 - 25 Promote virtuous business models
 - 26 Sufficiency action at the local level

27 Conclusion

Executive Summary

'The environmental impact of the consumption of an average EU citizen is outside the safe operating space for humanity,'¹ concludes the European Commission's Joint Research Centre in its 2023 report on EU consumption. Lowering this impact is of paramount importance for the EU and national governments in the coming years to avert the triple planetary crisis (climate, pollution, and biodiversity loss). The shift from a linear to a circular economy has been promoted as the solution to the overconsumption of natural resources for years. This paper shows the shortcomings of this approach and makes a case for a drastic reduction of material use and the implementation of sufficiency principles. The fast fashion textiles sector is singled out as one of the most impactful waste streams² to serve as an example for the transition. Evidence shows that even with the foreseen efficiency measures in the industry, a 40% emissions gap persists until 2030.³ The sector's exceptional growth has been facilitated by the increasing use of cheap, synthetic fibres from fossil resources and the relocation of production to jurisdictions with poor labour and environmental standards. Reversing this trend will require active government intervention at different levels.

The paper explores three key areas of intervention that governments and decision-makers should consider in their effort to bring the textile sector back in tune with planetary boundaries. A clever combination of the proposed measures will likely be required to achieve the desired outcome:

- Setting *legal boundaries* at the EU level. We identified three key levers: firstly, mandating a ban on the destruction of unsold goods by large enterprises. While the European Parliament recently voted in favour of the measure under the eco-design framework, it must now be transposed swiftly and across the board. Secondly, since waste prevention measures in the EU have not yet yielded any tangible results, we propose concrete targets for textile waste prevention to drive the policy process and decisive measures in the Member States. The target could be set at one-third reduction in textile waste by 2040 in comparison to 2020, based on calculations of the sustainable use of PET and polyester. And, thirdly, introducing a target for resource use. While targets are commonplace in other areas, a target for the use of primary resources is overdue. We propose transforming the EU's waste legislation into a 'Resource Framework Directive' in line with the 1.5-degree target, taking inspiration from the EU Member States that have already ventured ahead to reduce their material footprint.
- Using *financial incentives*. Firstly, by implementing Extended Producer Responsibility (EPR) schemes that go beyond what has been proposed under the WFD revision to hold producers of fast fashion

¹ "Consumption Footprint and Domestic Footprint: Assessing the environmental impacts of EU consumption and production," JRC, 2023, eplca.jrc.ec.europa.eu/uploads/JRC128571_S4P_ConsumptionFootprint.pdf, p.5.

² "EU strategy for sustainable and circular textiles," European Commission, 2022, environment.ec.europa.eu/publications/textiles-strategy_en.

³ "A Roadmap to Net-zero Emissions for the Apparel Sector," World Resources Institute, 2022, <https://www.wri.org/technical-perspectives/roadmap-net-zero-emissions-apparel-sector>.

accountable for the waste their products generate. To this end, the EU's EPR scheme has to be revised to go beyond cost coverage and incorporate tools for prevention, repair, and reuse solutions. EPR should also be used as a tax on the number of items placed on the market, rewarding businesses embracing circular activities. Secondly, environmental taxes, already applied to the energy and transport sectors, could be extended to virgin materials, especially virgin plastics, given the dominant role of synthetic fibres in fast fashion. Taxes must, however, be complemented by social programmes like a Carbon Fee and Dividend scheme. Thirdly, while the current financial system is unfit for the transition towards sufficiency due to its profit-seeking nature, the EU's taxonomy process should be the first step to channelling investments towards zero waste businesses. This mechanism has to be improved to prevent green-washing and updated with a taxonomy that not only rewards but also penalises environmentally detrimental investments.

- Engendering a *sufficiency culture*. The first step towards establishing a sufficiency lifestyle is to disincentivise overconsumption. The fashion industry's dominant business model relies on persuading citizens to continuously purchase new fashion trends. Yet, quantifying clothing sufficiency and determining how much is 'enough' is an ongoing research endeavour. Public policy has a long legacy of attempting to change consumer behaviour through public awareness campaigns and school curricula. Even 'choice editing' is established for other products like tobacco or cars. Consumer law could also play a role in protecting consumers from misleading advertisements, or even reining in advertisements altogether. Moreover, promoting repair and reuse is paramount, as reusing clothes can significantly reduce the need for new garments and simultaneously create new jobs. However, it is crucial to ensure that the reuse of clothing contributes to an overall decrease in the consumption of new garments, and government action has to render reuse and repair profitable. Lastly, the overproduction of fashion brands is a significant issue, with 30% of clothes not being sold to consumers.⁴ To address this, zero waste business models must replace current ones. We propose some essential criteria for those businesses that deserve public support and underline the importance of alternative models of exchange.

This paper is the first chapter of a two-part series on fashion and textiles by Zero Waste Europe. We are exploring textiles and fashion across the entire value chain, starting with the need to reduce overall production and consumption. The following chapter on circularity will outline how the clothes we produce should be designed, used, reused, recycled and treated at the end of life.

[**Please register here for updates on our future work**](#)

⁴ "Textiles and the environment," European Parliament, 2022, [europarl.europa.eu/RegData/etudes/BRIE/2022/729405/EPRS_BRI\(2022\)729405_EN.pdf](https://europarl.europa.eu/RegData/etudes/BRIE/2022/729405/EPRS_BRI(2022)729405_EN.pdf).

Why do we need sufficiency?

The triple planetary crisis (climate, nature, and pollution)⁵ is fueled by the continued high demand for natural resources. The amount of resources used to satisfy the needs and wants of Europeans are measured with the Material Footprint metric, summing up the materials needed to produce the goods demanded by European Union's (EU) citizens. The EU's Material Footprint is at unsustainable levels, as presented below.

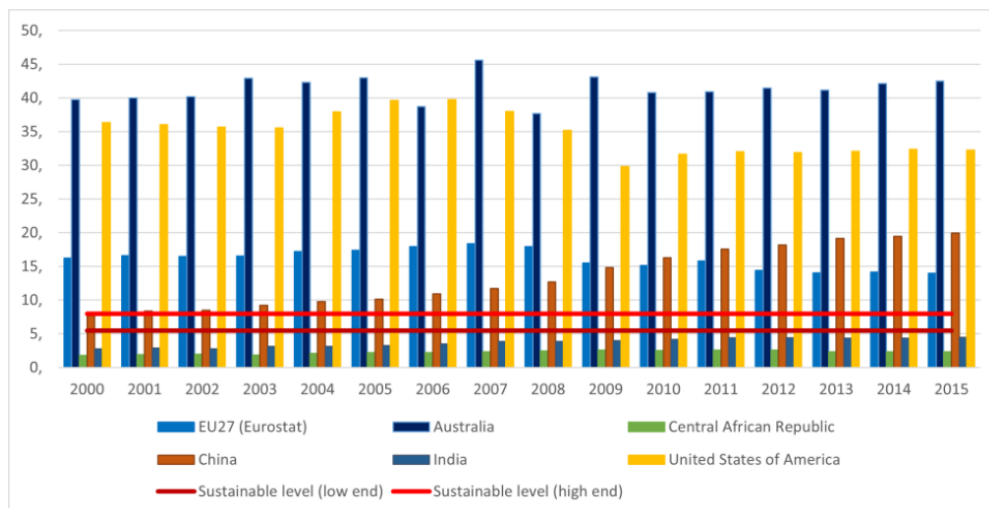


Figure 1: EU27 Eurostat Material Footprint estimate in comparison with selected other countries and indication of sustainable boundaries, [IEEP \(2022\)](#)

The Commission's own Joint Research Centre (JRC) recently concluded that: *'that the environmental impact of the consumption of an average EU citizen is outside the safe operating space for humanity for several impacts, namely climate change, particulate matter, freshwater ecotoxicity, and resource use (fossil fuels, minerals and metals).'*⁶

Moreover, a recent study by Eunomia and Zero Waste Europe (ZWE) found that the global projections for overall raw material extraction and processing are unlikely to be sufficient to achieve net-zero emissions by 2050 and to limit global warming to 1.5 degrees Celsius. The CO2 budget is likely to be exceeded by a factor of five, with the result that global warming would increase by 2.5 degrees.⁷ Evidence shows that although the EU's resource productivity has increased by 35% since 2000, the average citizen still consumes almost 14 tonnes of materials each year, and many of the resources on which we depend come from outside the EU. Roughly half

⁵ "The triple planetary crisis: Forging a new relationship between people and the earth," UNEP, 2020, [unep.org/news-and-stories/speech/triple-planetary-crisis-forging-new-relationship-between-people-and-earth?gclid=Cj0KCQjwuZGnBhDIARIsACxbAVi5EIOFSkM3ki588NiApJ40EEToHW62tR-1KnhmMJ_p5NM5XzHWPfMaAuB7EALw_wcB](https://www.unep.org/news-and-stories/speech/triple-planetary-crisis-forging-new-relationship-between-people-and-earth?gclid=Cj0KCQjwuZGnBhDIARIsACxbAVi5EIOFSkM3ki588NiApJ40EEToHW62tR-1KnhmMJ_p5NM5XzHWPfMaAuB7EALw_wcB).

⁶ "Consumption Footprint and Domestic Footprint: Assessing the environmental impacts of EU consumption and production," JRC, 2023, eplca.jrc.ec.europa.eu/uploads/JRC128571_S4P_ConsumptionFootprint.pdf, p.5.

⁷ "Is net zero enough for the materials sector?," Zero Waste Europe and Eunomia, 2022, zerowasteurope.eu/library/is-net-zero-enough-for-the-materials-sector.

of all greenhouse gas emissions derive directly from consumption. Even if we only take four material categories (aluminium, concrete, iron & steel, and plastics) into account, the 1.5-degree target becomes unachievable.

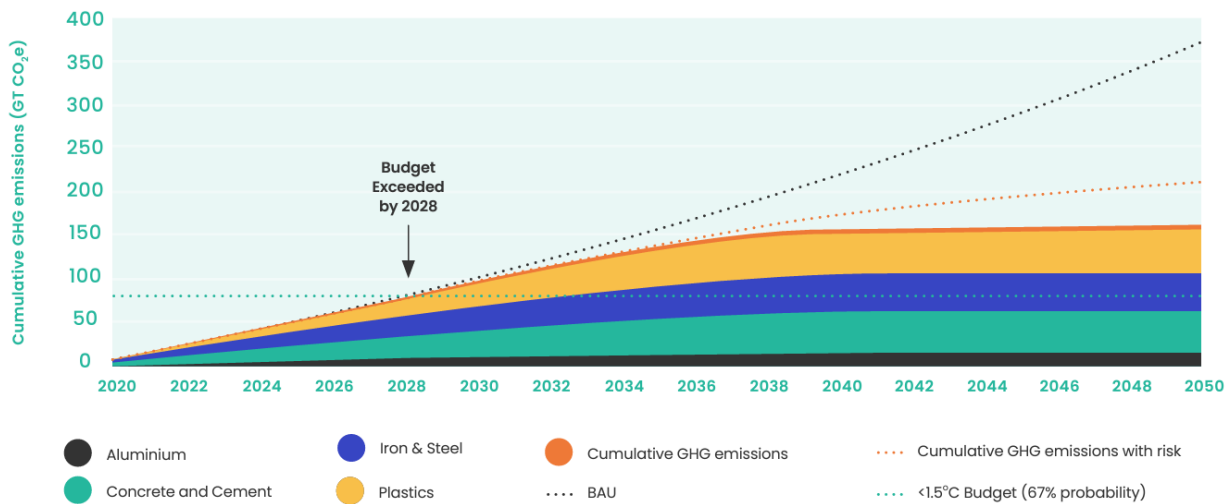


Figure 2: Cumulative GHG Emissions for Four Materials, [Eunomia \(2023\)](#)

The circular economy is being promoted as the way to increase material efficiency and reduce the impact of our consumption, as outlined in the EU's *Circular Economy Action Plan (CEAP)*.⁸ However, a circular economy is not enough, and the focus really must be put on consumption reduction, as members of the International Resource Panel underline.⁹ The latest crushing stocktake of the global circular economy confirms this; the 2023 Circular Gap report showed a decrease in global circularity from 9.1% in 2018 to 7.2% in 2023 due to the increased use of virgin material.¹⁰

At the centre of the dilemma sits the 'Jevons paradox', first described over 150 years ago, defining the link between efficiency and growth: efficiency gains enable more production and consumption, which in turn hike up the extraction of even more primary resources and the generation of wastes. Therefore, policy seeking to improve efficiency does not automatically benefit the environment¹¹ – a phenomenon also known as the 'rebound effect'.

⁸ European Commission. 2020. "A New Circular Economy Action Plan." Eur-Lex.europa.eu. March 11, 2020. eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583933814386&uri=COM:2020:98:FIN.

⁹ "A circular economy isn't enough – we also need to consume less," Anders Wijkman, Earth4All contributor and member of the International Resource Panel, and Janez Potochnik, Co-chair, International Resource Panel, Earth4All contributor, 2023, earth4all.life/views/a-circular-economy-isnt-enough-we-also-need-to-consume-less/.

¹⁰ "The circularity gap report," Circle Economy, 2023, circularity-gap.world/2023.

¹¹ "Resources for a better future: Jevons Paradox," Resilience, 2020, resilience.org/stories/2020-06-17/jevons-paradox/.

Absolute decoupling of economic growth and resource use seems to remain a pipe dream. While absolute decoupling can be observed domestically, meaning the domestic environmental impact decreased while GDP grew between 2010 and 2018, when taking into account global trade, only a relative decoupling is possible.¹²

While, in principle, EU policy has an established hierarchy on how to treat our resources, this is not effectively applied in practice. The EU Waste Hierarchy clearly prioritises the prevention of waste, an intervention on the product level, over circular activities like reuse and recycling, yet legislation often falls short of introducing prevention measures.¹³

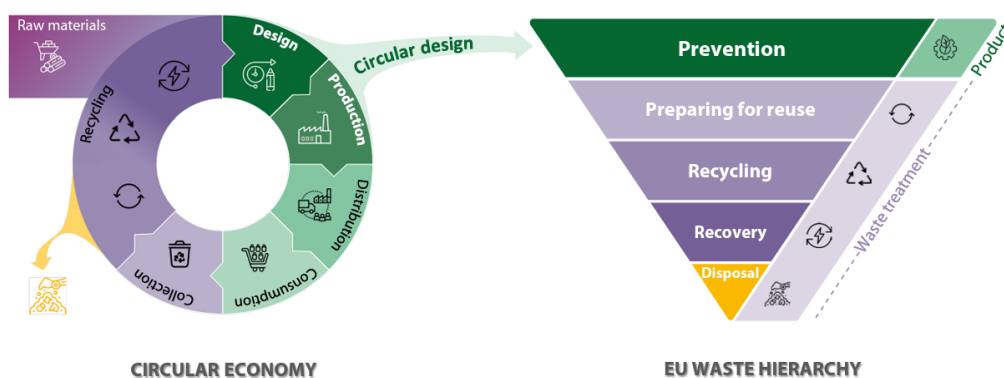


Figure 3: Phases of the circular economy vs EU waste prevention, [European Court of Auditors \(2023\)](#)

If increased material efficiency through longevity, reuse, or recycling does not result in reduced overall material consumption, the circular economy has forfeited its ‘raison d’être’.

At the international level, the *Kunming-Montreal Global Biodiversity Framework* identified resource use as a main driver for biodiversity loss and established the following target: ‘By 2030, reduce the global footprint of consumption in an equitable manner, including through halving global food waste, significantly reducing overconsumption and substantially reducing waste generation, in order for all people to live well in harmony with Mother Earth.’¹⁴ The EU, as a party to the framework, is obliged to act accordingly, and the way forward to achieve this goal seems clear: collective self-limitation. Limiting primary production can ensure the economy does not surpass planetary boundaries and expected efficiency gains do not backfire and lead to ever more resource consumption. This is particularly important among overconsuming populations in the Global North as reduced consumption there would leave a fair consumption space for under-consuming populations to meet their needs.¹⁵

¹² “Consumption Footprint and Domestic Footprint: Assessing the environmental impacts of EU consumption and production,” JRC, 2023, publications.jrc.ec.europa.eu/repository/handle/JRC128571.

¹³ i: Waste reduction targets are only foreseen for very few waste streams; for packaging under the proposed Regulation on Packaging and Packaging Waste (PPWR), and for food waste under the Waste Framework Directive Resision (WFD) in 2023.

¹⁴ “Kunming-Montreal Global Biodiversity Framework, decision 15/4,” UNEP, Convention on Biological Diversity, 2022, cbd.int/gbf/, Target 16.

¹⁵ “Rethinking what we want to value as a society – a Q&A with Dr. Lewis Akenji,” Earth4All, 2022, earth4all.life/views/rethinking-what-we-want-to-value-as-a-society-a-qa-with-dr-lewis-akenji/.

To this end, sufficiency as a sustainability strategy has increasingly been explored for energy and food systems. As per definition by the Intergovernmental Panel on Climate Change (IPCC), ‘sufficiency policies are a set of measures and daily practices that avoid demand for energy, materials, land and water while delivering human well-being for all within planetary boundaries.’¹⁶ As a strategy, it seeks to decrease absolute resource and energy consumption.¹⁷ In this context, it is important to note that consumption happens within the social sphere: *‘people consume to meet their biological needs, social expectations, and to satisfy desires. But people also consume the way they predominantly do because they are railroaded to do so by prevailing infrastructure and social norms,’* as Dr Lewis Akenji, member of the Earth4All Transformational Economics Commission, recently put it.¹⁸ What is required for the sufficiency transition are new values that challenge what is perceived as success today.¹⁹ There are two paths to making sufficiency a reality: choice editing and social innovation - eliminating the most harmful choices and creating an economy based on care and well-being.²⁰

Sufficiency in the fashion sector

Introducing sufficiency and reduction across the entire economy can be a daunting prospect. However, when taking the fashion textiles sector as an example, it becomes much more straightforward to grasp and can serve as a model for other industries. Achieving sufficiency requires significant reforms of the economy at large that go far beyond the scope of this paper and include the introduction of distributive systems for local and global equity accompanied by inclusive, participatory processes, e.g., citizen assemblies.²¹

If not addressed holistically, reducing resource use in one sector could engender additional growth in other sectors due to resources freeing up, resulting in an overall unchanged environmental impact. We, therefore, regard fashion textiles as an entry point for a larger transition to a zero waste society. The shortcomings of this case study approach must be complemented by more research in other sectors.

When taking a closer look at the consumption footprint of ‘clothes’ among other household goods, it becomes obvious that they take a significant share.

¹⁶ “Climate Change 2022, Mitigation of Climate Change, Summary for Policymakers,” IPCC, 2022, [ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_SPM.pdf](https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_SPM.pdf), p. 35.

¹⁷ “Sufficiency,” ifeu, 2023, [ifeu.de/en/topics/energy/sufficiency/](https://www.ifeu.de/en/topics/energy/sufficiency/).

¹⁸ “Rethinking what we want to value as a society – a Q&A with Dr. Lewis Akenji,” Earth4All, 2022, earth4all.life/views/rethinking-what-we-want-to-value-as-a-society-a-qa-with-dr-lewis-akenji/.

¹⁹ “New Energy For Europe,” ZWE, 2022, zerowasteurope.eu/library/new-energy-for-europe/.

²⁰ “Rethinking what we want to value as a society – a Q&A with Dr. Lewis Akenji,” Earth4All, 2022, earth4all.life/views/rethinking-what-we-want-to-value-as-a-society-a-qa-with-dr-lewis-akenji/.

²¹ “What is degrowth,” degrowth, 2023, degrowth.info/degrowth.

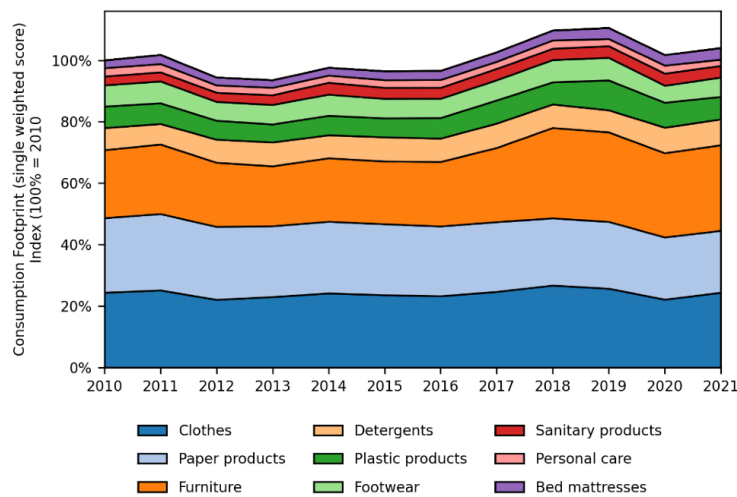


Figure 4: Evolution of the Household good area of consumption for EU-27 between 2010 and 2021, [JCR \(2023\)](#), p.33

The scale of fashion overproduction and consumption is mind-boggling. Every year, the average European buys 26 kg of textiles and generates approximately 11 kg of textile waste. Only half of used clothes are collected for reuse or recycling, and with recycling of textiles into new pieces of clothing being almost non-existent (approximately 1%), the vast majority of the collected clothes end up being exported and eventually, incinerated or landfilled (87%).²²

Moreover, the implications of the textile industry are alarming: in the EU, textile consumption generates the fourth-highest negative impact on the environment and climate, as well as the third-highest for water and land use (taking into account the impact globally).²³ Even when efficiency measures are implemented in the supply chain, e.g. energy and material efficiency, shifting to 100% renewable energy, and more sustainable materials, there is still a gap of almost 40% (in comparison to emissions in 2019) of necessary emissions reductions to meet the 1.5 degrees target, as modelled by the World Resources Institute.²⁴

²² "The Impact of Textile Production and Waste on the Environment (Infographics)," European Parliament, 2023, europarl.europa.eu/news/en/headlines/society/20201208ST093327/the-impact-of-textile-production-and-waste-on-the-environment#:~:text=Textile%20waste%20in%20landfills%20and%20low%20recycling%20rates&text=Europeans%20use%20nearly%2026%20kilos.

²³ "EU strategy for sustainable and circular textiles," European Commission, 2022, environment.ec.europa.eu/publications/textiles-strategy_en.

²⁴ "A Roadmap to Net-zero Emissions for the Apparel Sector," World Resource Institute, 2022, wri.org/technical-perspectives/roadmap-net-zero-emissions-apparel-sector.

Between 2000 and 2015, global clothes sales doubled, an increase out of proportion with population growth of about 20%.²⁵ In fact, there are already enough clothes in the world to dress the next six generations.²⁶ But what drives growth in the sector? In the EU, prices decreased by 30% between 1996 and 2018 relative to inflation. This development was enabled by the increasing use of cheap, synthetic fibres from fossil resources²⁷ and the relocation of production to jurisdictions with poor labour and environmental standards.²⁸ The subsequent rise of fast-changing fashion trends²⁹ resulted in 'style consumption'³⁰ rather than consumption to meet physical needs. The dominant business model of the fashion industry hence relies on persuading consumers to continuously follow and buy new fashion trends. Constant digital advertising and the widespread use of social media have also contributed to this trend.³¹ Evidence shows that in 63% of cases, clothes are disposed of because of poor fit and perceived value, instead of the actual quality of the garment.³² Recent research has shed light on sustainable consumption corridors for fashion and underlines that around five new garments per person per year represent a sustainable level of consumption.³³

Overproduction in the sector is commonplace due to the forecast-driven model, rather than a demand-driven one. Evidence shows that 30% of clothes produced are not even sold to consumers, unveiling how overproduction is factored into the business models of the sector.³⁴ These findings put into question the ability of the EU's *Strategy for Sustainable and Circular Textiles* to lower the environmental impact with the foreseen measures on design, labelling, information requirements, collection and recycling.³⁵

Certainly, reducing production poses the question of job losses: how can production volumes be reduced globally in a just way? If fewer new garments are produced, fewer workers would be required in the sector,

²⁵ "Dress and the city: a comparative study on clothing and textiles environment policy in five European cities," Maldini, Iran, Laitala, Vitterso, Jestratijevic, Amaral, Vladimirova, 2021, tugraz-verlag.at/en/gesamtverzeichnis/uncategorized/proceedings-of-the-20th-european-roundtable-on-sustainable-consumption-and-production-ebook/.

²⁶ "A circular economy isn't enough – we also need to consume less," Anders Wijkman, Earth4All contributor and member of the International Resource Panel, and Janez Potochnik, Co-chair, International Resource Panel, Earth4All contributor, 2023, earth4all.life/views/a-circular-economy-isnt-enough-we-also-need-to-consume-less/.

²⁷ "EU strategy for sustainable and circular textiles," European Commission, 2022, environment.ec.europa.eu/publications/textiles-strategy_en.

²⁸ "Beyond circular fashion," Zero Waste Europe, 2023, zerowasteurope.eu/wp-content/uploads/2023/01/Jan23-ZWE_Beyond-Circular-Fashion_-Report.pdf.

²⁹ Fletcher, Kate. 2014. *Sustainable Fashion and Textiles*. (second edition). Earthscan, London.

³⁰ Cho, Erin, Shipra Gupta, and Youn-Kyung Kim. 2015. "Style Consumption: Its Drivers and Role in Sustainable Apparel Consumption." *International Journal of Consumer Studies* 39 (6): 661–69. doi.org/10.1111/ijcs.12185.

³¹ "Consumer Research for ECAP 2016–2019," WRAP, 2019, ecap.eu.com/wp-content/uploads/2019/12/Consumer-Research-for-ECAP.pdf.

³² "Review of clothing disposal reasons," Clothing research, Kirsi Laitala and Ingun Grimstad Klepp, 2022, clothingresearch.oslomet.no/2022/10/19/review-of-clothing-disposal-reasons/.

³³ "Unfit, unfair, unfashionable," HotorCool, 2022, hotorcool.org/wp-content/uploads/2022/12/Hot_or_Cool_1.5_fashion_report.pdf.

³⁴ "Textiles and the environment," European Parliament, 2022, [europarl.europa.eu/RegData/etudes/BRIE/2022/729405/EPRS_BRI\(2022\)729405_EN.pdf](https://europarl.europa.eu/RegData/etudes/BRIE/2022/729405/EPRS_BRI(2022)729405_EN.pdf).

³⁵ "EU strategy for sustainable and circular textiles," European Commission, 2022, environment.ec.europa.eu/publications/textiles-strategy_en.

especially in the Global South, as the top clothing manufacturing countries are China, India, and Pakistan.³⁶ Some jobs could move from manufacturing to repair, refurbishment, collection, sorting, or recycling of used garments. However, to ensure the well-being of all workers, a broader societal shift and an active government will be required. In this respect, it's also important to remember the failings of the current textile production system, with its global supply chains, diverse players, and tight profit margins, which fails to provide decent work and livelihoods for many and is in urgent need of an overhaul.³⁷ Research and guidance for a just transition in the textile and garment supply chain are being progressively developed.³⁸

In the following sections, we present policy options and other interventions for the transition to a fashion sector that is based on the principle of sufficiency and aligned with planetary boundaries. Further research is still required to assess which interventions are best suited to facilitate the transition and how they interact. A one-size-fits-all approach is unlikely to solve the issue. Finally, policymakers, governments, and authorities must have the courage to move ahead and test these options. We hope this will inspire meaningful change at all levels, from local communities to global governance.

³⁶ "5 Biggest Clothing Manufacturing Countries in the World," Insider Money, May 9 2023, insidermonkey.com/blog/5-biggest-clothing-manufacturing-countries-in-the-world-1138812/5/.

³⁷ "Sustainability and Circularity in the Textile Value Chain: Global Stocktaking," UN Environment Programme, 2020, wedocs.unep.org/20.500.11822/34184.

³⁸ "Introducing the "Just Transition Toolkit" for the Textile and Garment Supply Chain in Asia," ILO, 2023, ilo.org/asia/media-centre/multimedia/WCMS_890197/lang--en/index.htm&sa=D&source=docs&ust=1692791193955092&usg=AOvVaw3d6a7vUBE2tgREgVYjImw8.



How to reduce?

Policy options and interventions

1. Mark legal boundaries

Ban the destruction of unsold goods

The EU's textiles strategy requires the '*(d)isclosure of the number of discarded products by large enterprises and their subsequent treatment, and measures on banning the destruction of unsold textiles*'.³⁹ The European Parliament recently took an important step towards ending this harmful practice when voting in favour of banning the destruction of unsold consumer products under the eco-design framework.⁴⁰ It is paramount now to ensure the law is adopted accordingly by the co-legislators and swiftly transposed. Potential loopholes such as exports (e.g. via alleged charitable donations) or online marketplaces must be addressed and the definition of 'destruction' should not provide any exception for recycling.

Many multinational brands have been reported to destroy their unsold products, among them are Burberry, Amazon, H&M, and Zara. The reasons given for destruction were retaining brand image and prices (preventing sale at reduced prices on other markets and ensuring exclusivity), protecting intellectual property, damaged products due to shipment or return, the costs related to reprocessing of products with low value, and overproduction. For example, between 2013 and 2017, H&M sent 60 tonnes of new and unsold clothes for incineration.⁴¹ E-commerce poses a particular challenge in this respect as apparel has one of the highest return rates. Free return policies incentivise customers to order more items than they intend to buy, try different sizes of the same garment, and send back the other items. Not surprisingly, large online retailers have repeatedly been found to destroy returned goods.⁴² A broad range of civil society organisations has demanded an end to this practice.⁴³

France has moved ahead and introduced a ban on the destruction of unsolds in its circular economy law (Article 35). However, this provision puts reuse and recycling on the same level – organisations can choose whether to reuse or recycle, and in case no recycling facility is available, products can still get destroyed.

³⁹ "EU strategy for sustainable and circular textiles," European Commission, 2022, environment.ec.europa.eu/publications/textiles-strategy_en.

⁴⁰ "Amendments adopted by the European Parliament on 12 July 2023 on the proposal for a regulation of the European Parliament and of the Council establishing a framework for setting eco-design requirements for sustainable products and repealing Directive 2009/125/EC," European Parliament, 2023, europarl.europa.eu/doceo/document/TA-9-2023-0272_EN.html.

⁴¹ "Prohibiting the Destruction of Unsold Goods," Ökopol for EEB, 2021, eeb.org/wp-content/uploads/2021/10/Prohibiting-the-destruction-of-unsold-goods-Policy-brief-2021.pdf.

⁴² "Recommendations for the EU Strategy for Sustainable Textiles," EEB, 2021, wardrobechange.eu/wp-content/uploads/2021/06/Environmental-CSOs-Recommendations-for-the-EU-Strategy-for-Sustainable-Textiles-June-2021.pdf.

⁴³ "Letter to Members of the European Parliament – Environment Committee," EEB, 2023, eeb.org/wp-content/uploads/2023/05/letter-on-the-destruction-of-unsold-goods-May-2023.pdf&sa=D&source=docs&ust=1692789938910064&usq=A0vVaw0z_A2qG1Z1bNzgZoOXIG0v.

Furthermore, returned and damaged goods are not included, and it remains questionable if the implementation is sufficiently monitored.⁴⁴

A recent UN report also raises the issue of waste during production: *‘25% of textiles are wasted throughout the manufacturing process – this includes yarn, unfinished fabrics, defective pieces and overproduced or rejected garments. Average overproduction is estimated around 20%, with brands well known for disposing of defective or unsold stock (deadstock), so as to protect intellectual property.’*⁴⁵ This waste at production level must be addressed through specific action and improved supply chain management.

Set waste prevention targets

Targets for waste prevention can help drive effective measures against the persistently high textile waste generation in EU Member States. The *Waste Framework Directive (WFD)* already mandates the establishment of waste prevention programmes by Member States (articles 9 and 29) and provides examples of waste prevention measures in Annex IV. While the directive mandates that Member States take measures to prevent waste generation, it does not provide any targets to measure the achievements.⁴⁶ Since Member States’ waste prevention programmes have not delivered any tangible waste reduction over the past 10 years they have been in place,⁴⁷ we suggest setting concrete quantitative targets, starting with textile waste.

The European Environmental Agency (EEA) notes that *‘target setting is the cornerstone of policymaking in the area of waste prevention (...) Targets can drive the policy process, as they require: developing indicators for monitoring progress towards the target; indicating data requirements to measure progress;’*⁴⁸ Indeed, waste reduction targets⁴⁹ have a precedent as they are already foreseen in the EU for other waste streams like food waste⁵⁰ and packaging.⁵¹ Some EU Member States are also leading by example and have introduced similar targets. The Netherlands set a cap of 61 million tonnes for the total waste volume by 2023 and 63 million

⁴⁴ n°2020-105 LOI du 10 février 2020 relative à la lutte contre le gaspillage et à l'économie circulaire. In: Journal officiel - JORF: perma.cc/9YRB-SQGQ.

⁴⁵ “Sustainable Fashion,” UN Environment Programme, 2020, wedocs.unep.org/bitstream/handle/20.500.11822/41076/Sustainable_Fashion_Strategy.pdf?sequence=3&isAllowed=y.

⁴⁶ Directive 2008/98/EC. Consolidated text: Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives, 2018, Official Journal L 312 22.11.2008, p. 3, data.europa.eu/eli/dir/2008/98/2018-07-05.

⁴⁷ “Tracking waste prevention progress — A narrative-based waste prevention monitoring framework at the EU level,” European Environmental Agency, 2023, eea.europa.eu/publications/tracking-waste-prevention-progress, p. 60.

⁴⁸ “Progress towards waste prevention in Europe — the case of textile waste prevention,” European Environmental Agency, 2021, eea.europa.eu/publications/progressing-towards-waste-prevention-in.

⁴⁹ i The terms ‘waste prevention targets’ and ‘waste reduction targets’ are used interchangeably in this paper.

⁵⁰ “Proposal for a Targeted Revision of the Waste Framework Directive,” European Commission, 2023, environment.ec.europa.eu/publications/proposal-targeted-revision-waste-framework-directive_en.

⁵¹ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on packaging and packaging waste, amending Regulation (EU) 2019/1020 and Directive (EU) 2019/904, and repealing Directive 94/62/EC”, 30 November 2022, COM(2022) 677 final, European Commission, Directorate-General for Environment, eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52022PC0677.

tonnes by 2029, as well as halving food waste per capita by 2030 compared with 2015.⁵² Spain pledged to reduce waste by 15% and food waste throughout the entire food chain by 50% per person relative to 2020.⁵³

We propose an overall reduction target for textile waste of at least one-third by 2040 in comparison to 2020, as outlined in our recent paper.⁵⁴ We based this proposal on a recent modelling by Systemiq that quantified the reduction of polyester necessary to achieve a high-circularity, low-emissions system and recommended reducing PET/polyester consumption by one-third by 2040.⁵⁵ Since synthetic fibres (mainly polyester) account for around 60% of material and in order to not fall into the trap of material substitution, this target must include all fibre types.

Due to the lack of data on textile waste, we suggest using an input-based indicator, i.e., textiles placed on the market. Such an indicator *‘is considered to represent a good proxy indicator for reduction of textile wastes.’*⁵⁶ Furthermore, it is important to note that ‘reuse’ does not constitute ‘waste prevention’. Waste prevention is an upstream measure at the product level, as clearly indicated in the waste hierarchy. As per definition, *‘prevention’ means measures taken before a substance, material or product has become waste*, yet reuse of products can be conducive to this end.⁵⁷

Introduce resource use targets

The same logic for target setting, as outlined above, applies to resource use. Here, too, we have a strong precedent: the internationally agreed and binding GHG emissions targets of the Paris Agreement.⁵⁸ Material consumption has a significant climate, pollution and biodiversity impact, too, as shown in the introductory part of this paper. This warrants the introduction of a similar target for resource use. Setting targets for consumption is no uncharted territory for European governments: during the recent energy crisis, measures to cut the demand for natural gas were introduced.⁵⁹ Moreover, already in 2021, the European Parliament called

⁵² “Afvvalpreventieprogramma Nederland,” Rijksoverheid, 2021, open.overheid.nl/documenten/ronl-04a57ccf-f41d-4ee1-b3cf-927439095bac/pdf.

⁵³ “Circular Economy policy innovation and good practice in Member States,” European Environmental Agency, 2022, eionet.europa.eu/etcs/etc-ce/products/draft-report-for-dg-env_final.pdf.

⁵⁴ “T(h)reading a path: Towards textiles waste prevention targets,” Zero Waste Europe, 2023, <https://zerowasteurope.eu/library/threading-a-path-towards-textiles-waste-prevention-targets/>.

⁵⁵ “Circular PET and Polyester A circular economy blueprint for packaging and textiles in Europe,” Systemiq, 2023, systemiq.earth/wp-content/uploads/2023/07/Circular-PET-and-Polyester-Full-Report-July-2023.pdf, p. 7.

⁵⁶ Watson, David, Leonidas Milios, Ioannis Bakas, Márton Herczeg, Birgitte Kjær, and Naoko Tojo. Proposals for targets and indicators for waste prevention in four waste streams. Nordic Council of Ministers, 2013, p.18.

⁵⁷ “Consolidated text: Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives” 5 July 2018, European Parliament, eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:02008L0098-20180705.

⁵⁸ “The Paris Agreement,” UN Climate Change, 2015, unfccc.int/process-and-meetings/the-paris-agreement.

⁵⁹ “Member states agree to extend voluntary 15% gas demand reduction target,” Council of the EU, 28 March 2023, consilium.europa.eu/en/press/press-releases/2023/03/28/member-states-agree-to-extend-voluntary-15-gas-demand-reduction-target/.

for binding 2030 targets for materials use and consumption in its resolution on the new *Circular Economy Action Plan*.⁶⁰

A recent study by the environmental consultancy Eunomia showed that in order to bring the EU resource policy in line with the 1.5-degree target, we need a 'Resource Framework Directive'.⁶¹ The authors outline the path for material and product use in an economy that is on its way to circularity and consistent with agreed climate targets. The report identifies six core sectors in which action is required to reduce material consumption: construction and buildings, transport, food systems, packaging, electronics, and textiles. The paper concludes that only a long-term revision of the *WFD* can guide the continued reduction in raw material consumption to deliver decarbonisation. A 'materials application/consumption hierarchy' could steer the use of different materials to maximise the potential for decarbonisation across the economy as a whole, rather than on a sector-by-sector basis.⁶²

A target could be based on the Consumption Footprint as an indicator developed by the European Commission's Joint Research Centre.⁶³ It uses a set of 16 LCA-based indicators to quantify the environmental impacts of an average EU citizen, thereby also considering the environmental impacts embedded in imported goods.

Some EU Member States are leading by example and have introduced similar targets:

- The Netherlands introduced an intermediate goal, a reduction in primary material input (minerals, fossils, and metals) of 50% by 2030; as well as the following quantitative targets:
 - 20% less plastic to be used by 2024 than in 2017;⁶⁴
- Austria plans to reduce its material footprint to 7 tonnes per person per year by 2050; its Domestic Material Consumption (DMC) from 19 to 14 tonnes per capita by 2030; and consumption of private households by 10% by 2030;⁶⁵

⁶⁰ "Circular Economy: MEPs Call for Tighter EU Consumption and Recycling Rules | News | European Parliament," European Parliament, October 2, 2021.

europarl.europa.eu/news/en/press-room/20210204IPR97114/circular-economy-meps-call-for-tighter-eu-consumption-and-recycling-rules.

⁶¹ "Reimagining the Waste Framework Directive," Zero Waste Europe, 2023.

<https://zerowasteurope.eu/library/reimagining-the-waste-framework-directive/>.

⁶² "Reimagining the Waste Framework Directive," Zero Waste Europe, 2023.

<https://zerowasteurope.eu/library/reimagining-the-waste-framework-directive/>.

⁶³ "Consumption Footprint and Domestic Footprint: Assessing the environmental impacts of EU consumption and production," JRC, 2023, publications.jrc.ec.europa.eu/repository/handle/JRC128571.

⁶⁴ "Circular Dutch economy by 2050," Government of the Netherlands, 2023,

government.nl/topics/circular-economy/circular-dutch-economy-by-2050.

⁶⁵ "Kreislaufwirtschafts-Strategie," Bundesministerium für Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie, 2022, bmk.gv.at/themen/klima_umwelt/abfall/Kreislaufwirtschaft/strategie.html.

- Finland plans to reduce consumption of domestic primary raw materials in 2035 to 2015 levels,⁶⁶
- Flanders in Belgium introduced a target to reduce its material footprint by 30% by 2030.⁶⁷

⁶⁶ “Finland’s Circular Economy Programme sets targets to curb overconsumption of natural resources,” Ministry of Economic Affairs and Employment, Ministry of the Environment, 2021,

ym.fi/en/-/circular-economy-programme-sets-targets-to-curb-overconsumption-of-natural-resources.

⁶⁷ “Circular Economy policy innovation and good practice in Member States,” European Environmental Agency, 2022, eionet.europa.eu/etcs/etc-ce/products/draft-report-for-dg-env_final.pdf.

2. Employ financial incentives

Hold producers accountable

The Extended Producer Responsibility (EPR) scheme for textiles, proposed under the *WFD* revision,⁶⁸ is a first step towards holding producers accountable for the products they release onto the market. However, the revision does not go far enough in terms of reshaping the rules for EPR in the EU. Especially the amount of eco-modulated fees chargeable to producers and the governance of Producer Responsibility Organisations (PROs) need a more substantial overhaul.

Producers are responsible for the increasing amounts of waste, hence, they must be part of the solution. Thus far, placing financial responsibilities on producers within EPR schemes has not delivered noticeable design changes towards increased repairability or durability, as stipulated in Article 8a.4b of the *WFD*.⁶⁹ EPR schemes need to be revised to incentivise better design and prevention and go beyond cost coverage. The eco-modulation of fees on certain characteristics of the garments is currently limited by the provisions in the *WFD* (Article 8a4c) which mandates that fees are not to exceed the '*costs that are necessary to provide waste management services in a cost-efficient way*'.⁷⁰

Moreover, EPR must incorporate tools to realise prevention, repair, and reuse solutions, with the allocation of a percentage of the fees collected to a fund dedicated to financing the transition to circularity (e.g. the French Solidarity Reuse Fund).⁷¹

While PROs are made responsible for the operational aspects of EPR schemes through legislation, they simultaneously use their strategic position to influence environmental policy. They are treated by national governments as the main stakeholders within EPR schemes, resulting in legislation that aims for cost-efficiency and measures ambition in terms of feasibility instead of environmental impact. According to Utrecht University, one of the possible solutions to this undesirable position of PROs within EPR schemes is to introduce a so-called 'circular value chain management organisation' that is involved at the strategic level. This

⁶⁸ "Proposal for a Targeted Revision of the Waste Framework Directive," European Commission, 2023, environment.ec.europa.eu/publications/proposal-targeted-revision-waste-framework-directive_en.

⁶⁹ Directive 2008/98/EC. Consolidated text: Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives, 2018, Official Journal L 312 22.11.2008, p. 3, data.europa.eu/eli/dir/2008/98/2018-07-05.

⁷⁰ "Driving a Circular Economy for Textiles through EPR," Eunomia, 2022, eunomia.co.uk/reports-tools/driving-a-circular-economy-for-textiles-through-epr/.

⁷¹ i: At least 5% of the PRO resources used to promote reuse + 22 millions euros over 6 years. See: RREUSE (2020) France to create a Solidarity Re-use Fund (and other re-use friendly measures) Available at: reuse.org/france-to-create-a-solidarity-re-use-fund-and-other-re-use-friendly-measures/.

body would be responsible for assessments, strategic decision-making, and monitoring of transparency of all actors involved in the EPR scheme.⁷²

How can EPR address fast fashion? Firstly, it is key that producers disclose production volumes so that policymakers can focus on fashions' biggest polluters. Secondly, EPR could be utilised as a form of tax on the number of items placed on the market.⁷³ For example, EPR fees could increase as soon as a certain volume threshold is reached.⁷⁴ Brands would receive a bonus for a lower amount of products placed on the market, which would reward business models embracing circular activities such as leasing, repairing, and reusing clothes. The cost of placing an item on the market would increase as more new items are placed on the market.⁷⁵ Civil society stakeholders in France have already proposed this idea during the consultation for the French textiles EPR. It was unfortunately not taken on board by policymakers,⁷⁶ however, new eco-modulation criteria are to be adopted by 2024 based on marketing and industrial practices – this could include a levy on volumes.

Another proposal to target fast fashion with EPR that is still being researched intensely is 'targeted producer responsibility', a scheme under which the individual polluter pays for the waste of their products.⁷⁷ This approach attempts to target individual responsibility based on the actual longevity of a garment measured when it becomes waste. The fees would apply when a product becomes waste and determined via waste analyses.

Tax virgin resource use

Environmental taxes are already widely applied across the EU. Currently, they mainly target the energy and transport sectors and represent 2.2% of EU GDP.⁷⁸ Taxes on virgin material could price in the real environmental costs of production and disincentive the design of short-lived and/or poor-quality products

⁷² Vermeulen, W.J.V., C.W. Backes, M.C.J. de Munck, K.Campbell-Johnston, I.M. de Waal, J. Rosales Carreon, M.N. Boeve (2021). Pathways for Extended Producer Responsibility on the road to a Circular Economy. White paper based on a literature review and the results of a Delphi study, on the experiences with EPR in the Netherlands. Utrecht University, Circular Economy and Society Hub: nl/sites/default/files/White-paper-on-Pathways-for-Extended-Producer-Responsibility-on-the-road-to-a-Circular-Economy.pdf.

⁷³ "How to make sure Extended Producer Responsibility becomes a silver bullet," OsloMet – Oslo Metropolitan University, Consumption Research Norway (SIFO), 2021, clothingresearch.oslomet.no/2022/10/24/how-to-make-sure-extended-producer-responsibility-becomes-a-silver-bullet.

⁷⁴ "Wellbeing Wardrobe: A wellbeing economy for the fashion and textile sector," EEB, 2021, eeb.org/wp-content/uploads/2022/03/Wellbeing-Wardrobe-A-wellbeing-economy-for-the-fashion-and-textile-sector-March-2022.pdf.

⁷⁵ "A new look for the fashion industry," ZWE, 2022, zerowasteurope.eu/wp-content/uploads/2022/03/EPR_briefing_light_final.pdf.

⁷⁶ "Arrêté du 23 novembre 2022 portant cahiers des charges des éco-organismes et des systèmes individuels de la filière à responsabilité élargie du producteur des textiles, chaussures et linge de maison (TLC)," JORF n°0273 du 25 novembre 2022, legifrance.gouv.fr/jorf/id/JORFTEXT000046600083.

⁷⁷ "New briefing outlining research behind the TPR proposal," Clothing Research, Consumption Research Norway (SIFO), Oslo Metropolitan University, clothingresearch.oslomet.no/2023/03/17/new-briefing-outlining-research-behind-the-tpr-proposal.

⁷⁸ "Environmental tax statistics," Eurostat, 2023, ec.europa.eu/eurostat/statistics-explained/index.php?title=Environmental_tax_statistics.

while making reuse and recycling more profitable. This instrument, however, must be accompanied by social programmes, like the Carbon Fee and Dividend scheme in Austria,⁷⁹ or as suggested by the authors of Earth for All, a citizens' fund paid for by polluters and handed in equal parts to all citizens to alleviate the burden of higher environmental taxes for the most vulnerable groups in society.⁸⁰

Especially, the intensive use of cheap, synthetic fibres, driving the growing rates of textile manufacturing, must be addressed in particular in order to combat the overproduction of fashion. Virgin plastic taxes might level the playing field with other fibres, account for the negative effects of such materials (micro-fibre release, fossil fuel extraction, and non-biodegradability at the end of life), and help the market move away from an over-reliance on synthetics generated from fossil fuel.⁸¹ A well-designed plastic tax can change behaviour towards less usage of plastics, internalise the damage caused by polluters, and raise revenue for public spending.⁸² For example, a tax on synthetic fibres can become part of the reform of the EU budget's own resources instrument. The Commission and Member States should ensure that this instrument instead creates sufficient incentives to reduce overall virgin plastic use, including the virgin plastic used in textile items, since it is currently too narrowly focused on just punishing unrecycled plastic packaging. The weight of plastic resin placed on the market in each Member State should be used to compute the 'own resources' instrument.⁸³ The tax rate on virgin plastics must be calibrated carefully with the tax on non-fossil materials to avoid regrettable substitution. At the same time, a reduction in the tax on labour could make labour-intensive circular economy activities more profitable.⁸⁴

While secondary material use must be encouraged, the widespread use of recycled PET from bottles in textiles undermines closed-loop recycling of food-contact-approved material and directs material away from high-value applications.⁸⁵

⁷⁹ "Klimabonus," oesterreich.gv.at, 2023, oesterreich.gv.at/themen/bauen_wohnen_und_umwelt/klimaschutz/klimabonus.html.

⁸⁰ "Reduce inequality," Earth4All, 2023, earth4all.life/a-major-upgrade.

⁸¹ "A new look for the fashion industry," ZWE, 2022, zerowasteurope.eu/wp-content/uploads/2022/03/EPR_briefing_light_final.pdf.

⁸² "The Price is Right...Or is it? The Case for Taxing Plastic," Rethink Plastic alliance, 2018, zerowasteurope.eu/wp-content/uploads/2018/09/PlasticsTax_FINAL.pdf.

⁸³ "Recommendations for the EU Strategy for Sustainable Textiles," EEB, 2021, wardrobechange.eu/wp-content/uploads/2021/06/Environmental-CSOs-Recommendations-for-the-EU-Strategy-for-Sustainable-Textiles-June-2021.pdf.

⁸⁴ "Wellbeing Wardrobe: A wellbeing economy for the fashion and textile sector," EEB, 2021, eeb.org/wp-content/uploads/2022/03/Wellbeing-Wardrobe-A-wellbeing-economy-for-the-fashion-and-textile-sector-March-2022.pdf.

⁸⁵ "Let's put circularity into practice!," Unesda, May 3rd 2023, unesda.eu/lets-put-circularity-into-practice.

Channel investments towards zero waste businesses

The financial system does not account for natural assets and is unfit to channel money in the direction of the transition towards sufficiency. The system not only has to raise money for sustainable economic activities, it also has to change fundamentally as it, in its current shape, is profit-seeking and growth-dependent. Instead, *'(degrowth) finance can be split into two goals: one focusing on neutralising predatory, profit-seeking activities and the other promoting alternative financial institutions and practices that fit the broader narrative of cooperative, not-for-profit, post-growth economies.'*⁸⁶

The EU's taxonomy process offers a glimpse of hope, yet there are already questions about the representation of vested interests that prevent strict sustainability criteria, as seen, for example, with the inclusion of natural gas and nuclear power.⁸⁷ In the process, the Commission will define technical screening criteria for each environmental objective through delegated and implementing acts. Some key provisions of the EU Platform on Sustainable Finance proposal related to textiles have unfortunately been left out of the adopted delegated act. In practice, this means that preventing pollution during production and fostering a circular economy for apparel will not be rewarded within this Taxonomy.⁸⁸ Civil society has already joined forces to present alternative, non-greenwashed rules for sustainable finance.

In any case, a 'brown taxonomy', in contrast to the green taxonomy, would have greater sway as it draws attention to activities that are particularly detrimental to environmental goals, such as climate change, and prevents the risk associated with overexposure to these industries.⁸⁹ Ultimately, the declared goal of the taxonomy law is to finance sustainable growth⁹⁰ instead of transforming the underlying logic of the economy towards sufficiency.

⁸⁶ Fitzpatrick, Nick, Timothée Parrique, and Inês Cosme. "Exploring degrowth policy proposals: A systematic mapping with thematic synthesis." *Journal of Cleaner Production* 365 (2022): 132764.

⁸⁷ "Implementing and delegated acts - Taxonomy Regulation," European Commission, finance.ec.europa.eu/regulation-and-supervision/financial-services-legislation/implementing-and-delegated-acts/taxonomy-regulation_en.

⁸⁸ "Joint Civil Society Organisations' Analysis and Recommendations," ECOS, May 2023, ecostandard.org/wp-content/uploads/2023/05/Joint-Civil-Society-Organisations-Analysis-and-Recommendations_-_Draft-Taxonomy-Delegated-Act-DA-on-the-four-remaining-environmental-objectives-and-the-climate-mitigation-and-adaptation-objectives.pdf.

⁸⁹ "Explaining the EU taxonomy (episode 1)," Groupe BPCE, groupebpce.com/en/all-the-latest-news/news/2022/explaining-the-eu-taxonomy-episode-1#:~:text=Unlike%20the%20green%20taxonomy%2C%20this,excessive%20exposure%20to%20these%20sectors.

⁹⁰ "EU taxonomy for sustainable activities," European Commission, 2023, finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en.

3. Promote a culture of sufficiency

Address overconsumption

The fashion industry's dominant business model relies on persuading citizens to continuously purchase new fashion trends. European apparel companies have for instance increased the number of fashion collections per year from on average two in 2000 to five in 2011, while the average European clothing consumption has increased by 40% between 1996 and 2012.⁹¹ The World Resource Institute has accordingly labelled '*unchecked consumption*' the elephant in the room.⁹²

Sufficiency in a fashion context can be defined as '*restrict(ing) consumption to a level that is enough for a healthy and satisfactory life but avoids excess*'⁹³ However, quantifying how much is 'enough' has proven difficult as the individual's understanding of a sufficient wardrobe is very subjective.⁹⁴ Research has established the concept of '*consumption corridors*' to identify how many garments an individual really needs. What is perceived as sufficient is, however, closely linked to class, gender, and ideas about well-being.⁹⁵

While improving the design and durability of garments via measures such as the *Ecodesign for Sustainable Products Regulation*⁹⁶ can improve the physical quality, these interventions fall short of addressing what is referred to as '*emotional durability*'. Addressing emotional durability requires reining in demand for new fashion trends. It will be essential to '*promote a positive image of life beyond materialism*'.⁹⁷ A recent report by the Hot or Cool Institute concludes that '*if no other actions are implemented, such as repairing/mending,*

⁹¹ "Textiles and the environment," European Parliament, 2022,

[eurparl.europa.eu/RegData/etudes/BRIE/2022/729405/EPRS_BRI\(2022\)729405_EN.pdf](https://eur-parl.europa.eu/RegData/etudes/BRIE/2022/729405/EPRS_BRI(2022)729405_EN.pdf).

⁹² "Elephant in the Boardroom: Why Unchecked Consumption is Not an Option in Tomorrow's Markets," World Resource Institute, 2017, wri.org/research/elephant-boardroom-why-unchecked-consumption-not-option-tomorrows-markets.

⁹³ Kleinhüchelkotten, Silke, and H.-Peter Neitzke. 2019. "Social Acceptability of More Sustainable Alternatives in Clothing Consumption" *Sustainability* 11, no. 22: 6194. <https://doi.org/10.3390/su11226194>.

⁹⁴ Frick, Vivian, Ellen Matthies, John Thøgersen, and Tilman Santarius. "Do online environments promote sufficiency or overconsumption? Online advertisement and social media effects on clothing, digital devices, and air travel consumption." *Journal of Consumer Behaviour* 20, no. 2 (2021): 288-308.

⁹⁵ Vladimirova, K. (2021). Consumption corridors in fashion: Deliberations on upper consumption limits in minimalist fashion challenges. *Sustainability: Science, Practice and Policy*, 17(1), 103-117. <https://doi.org/10.1080/15487733.2021.1891673>.

⁹⁶ "Ecodesign for Sustainable Products Regulation," European Commission, 2023,

commission.europa.eu/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/sustainable-products/ecodesign-sustainable-products-regulation_en.

⁹⁷ "Wellbeing Wardrobe: A wellbeing economy for the fashion and textile sector," EEB, 2021,

eeb.org/wp-content/uploads/2022/03/Wellbeing-Wardrobe-A-wellbeing-economy-for-the-fashion-and-textile-sector-March-2022.pdf.

washing at lower temperatures, or buying second-hand, purchases of new garments should be limited to an average 5 items per year for achieving consumption levels in line with the 1.5-degree target.⁹⁸

The question arising at the centre of this is how to change consumer behaviour. Fortunately, public policy has a long legacy and ample experience in attempting to change consumer behaviour. The consumption of tobacco, alcoholic beverages, sugar and more have all been addressed to varying extents by public awareness-raising campaigns or school curricula.

Promoting a sufficiency wardrobe, however, could also include more restrictive measures beyond awareness raising, so-called ‘choice editing’, an approach that filters out unsustainable options in the range of products available on the market. This would require removing certain choices from the market and introducing sustainable ones while ensuring equitable access for everyone.⁹⁹ Choice editing seems a rather radical measure but is in fact commonplace with regards to public health and safety concerns (substances, medication) and increasingly used for environmental reasons, e.g. phasing out of internal combustion engine cars and fossil-fuel-based heating systems.

Another option to tackle clothing overconsumption is to ban free returns and next-day delivery options to minimise impulse purchases and returns of unfitting garments.¹⁰⁰ As this is an emerging research area, the effects of online marketing, e-commerce and social media platforms remain ambiguous. However, consumer laws could play a role in protecting consumers from misleading advertisements, e.g. via the proposed *Green Claims Directive*.¹⁰¹ Moreover, so-called ‘dark patterns’ – the tricking and manipulating consumers online and enticing users to buy more and disclose personal data – were observed in online shops of many fast fashion retailers. These practices include pop-ups with very short-term discount codes, additional advantages granted from a certain purchase amount, or the unsolicited addition of articles in the shopping cart.¹⁰² To prevent impulsive online shopping, unfair commercial practices laws can play a role, as well as the Digital Services Act from 2022 that already calls out dark patterns.¹⁰³

Studies also found that the purchase frequency is linked to age, with especially people between 18 and 34 years being more likely to be high-frequency purchasers and keep clothes for a shorter period. Interventions could hence be tailored to certain age groups.¹⁰⁴ Shein alone, for example, causes 22% of carbon emissions

⁹⁸ “Unfit, unfair, unfashionable,” HotorCool, 2022, hotorcool.org/wp-content/uploads/2022/12/Hot_or_Cool_1.5_fashion_report.pdf.

⁹⁹ “Unfit, unfair, unfashionable,” HotorCool, 2022, hotorcool.org/wp-content/uploads/2022/12/Hot_or_Cool_1.5_fashion_report.pdf.

¹⁰⁰ “Unfit, unfair, unfashionable,” HotorCool, 2022, hotorcool.org/wp-content/uploads/2022/12/Hot_or_Cool_1.5_fashion_report.pdf.

¹⁰¹ “Proposal for a Directive on Green Claims,” European Commission, 2023, https://environment.ec.europa.eu/publications/proposal-directive-green-claims_en.

¹⁰² “Dark patterns: when web interfaces manipulate us,” PublicEye, 2022, publiceye.ch/fr/thematiques/vetements/dark-patterns-quand-les-interfaces-web-nous-manipulent.

¹⁰³ “Providers of online platforms should therefore be prohibited from deceiving or nudging recipients of the service and from distorting or impairing the autonomy, decision-making, or choice of the recipients of the service via the structure, design or functionalities of an online interface or a part thereof”, Digital Services Act, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022R2065>, recital 67

¹⁰⁴ “Consumer Research for ECAP 2016–2019 evaluation and Insights Report,” WRAP, 2019 <http://www.ecap.eu.com/wp-content/uploads/2019/12/Consumer-Research-for-ECAP.pdf>.

from French teenagers.¹⁰⁵ Some reports go as far as to suggest introducing uniforms or standardised dressing guidelines in high-pressure social and institutional settings such as schools.¹⁰⁶

Finally, restrictions on advertisements are a recognised lever to influence consumer behaviour. They have been used to disincentivise the consumption of tobacco and alcoholic beverages. Restricting advertisements in public spaces, similar to the advertisement ban for tobacco, can help lower demand for fast fashion items and would underline the harmful nature of fast fashion. Online advertisements, and social media advertisements in particular, represent a more challenging terrain for policymakers to control. For alcoholic beverages for instance, online ads were found to reduce the effect of general ad bans.¹⁰⁷

Make repair and reuse the new norm

Giving clothes a second life through resale, reuse, repair, or refurbishment can significantly lower the need to produce and purchase new garments.

The careful collection and sorting of discarded clothes for reuse is therefore paramount when implementing the mandatory separate collection of textiles in the EU from 2025 onwards.¹⁰⁸ At the local and regional levels, many charities have already established efficient systems for collection, sorting, and resale. Scaling those circular activities can contribute to the creation of new jobs. Job creation estimates for textile reuse are at 20 – 35 jobs per 1,000 tonnes.¹⁰⁹ Moreover, the *Circular Economy Action Plan* estimated that the number of jobs linked to the circular economy in the EU already grew by 5% between 2012 and 2018.¹¹⁰

However, despite the potential of the reuse sector, it must be ensured that the reuse of clothing does actually contribute to an overall decrease in the consumption of new garments. In some cases, the reuse via resale of fast fashion textiles on online platforms can in fact drive further purchasing of new garments. Consumers use C2C resale as a way of generating funds for new clothing. This practice disguises its link with and dependency on the fast fashion system under the veil of circularity. Major brands have already launched their own resale platforms to secure a piece of the growing resale business cake¹¹¹, and some brands offer store credits instead

¹⁰⁵ “Shein responsable de 22 % des émissions CO2 des adolescentes françaises,” 20 minutes, 2022,

[20minutes.fr/societe/3293167-20220519-shein-responsable-22-emissions-co2-adolescentes-francaises](https://www.20minutes.fr/societe/3293167-20220519-shein-responsable-22-emissions-co2-adolescentes-francaises).

¹⁰⁶ “Unfit, unfair, unfashionable,” HotorCool, 2022, [hotorcool.org/wp-content/uploads/2022/12/Hot_or_Cool_1.5_fashion_report.pdf](https://www.hotorcool.org/wp-content/uploads/2022/12/Hot_or_Cool_1.5_fashion_report.pdf).

¹⁰⁷ Goldfarb, A., & Tucker, C. (2011). Advertising Bans and the Substitutability of Online and Offline Advertising. *Journal of Marketing Research*, 48(2), 207–227. <https://doi.org/10.1509/jmkr.48.2.207>.

¹⁰⁸ Directive 2008/98/EC. Consolidated text: Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives, 2018, Official Journal L 312 22.11.2008, [data.europa.eu/eli/dir/2008/98/2018-07-05](https://eur-lex.europa.eu/eli/dir/2008/98/2018-07-05), Article 11.

¹⁰⁹ “Briefing job creation in the re-use sector: data insights from social enterprises,” RREUSE, 2021, [rrreuse.org/wp-content/uploads/04-2021-job-creation-briefing.pdf](https://www.rreuse.org/wp-content/uploads/04-2021-job-creation-briefing.pdf).

¹¹⁰ “Communication from the commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A New Circular Economy Action Plan for a cleaner and more competitive Europe” 11 March 2020, COM/2020/98 final, European Commission, Directorate-General for Environment, eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583933814386&uri=COM:2020:98:FIN.

¹¹¹ “Resale Report 2023,” ThredUp, 2023, [thredup.com/resale/](https://www.thredup.com/resale/).

of cash, tying resale to continued consumption.¹¹² A recent report also found that fast fashion brands offering to take back clothes and give them a second life are not keeping their word. Instead, few garments were resold, while most were shipped abroad with an unknown fate, downcycled, or destroyed.¹¹³

Despite these caveats, government support for the reuse and repair sector is essential. One way for governments to facilitate growth for reuse, repair, sharing, or refurbishment businesses is to reduce Value Added Tax for their goods. Yet, these reductions must be applied broadly and in combination with other measures. For example, Sweden introduced a VAT reduction on repair from 25 to 12% for products such as textiles and shoes in 2017, lowering the price of repair.¹¹⁴ This measure could also address the destruction of unsold and returned goods; producers and retailers reselling those products and thereby preventing destruction should benefit from tax rebates.¹¹⁵

Moreover, demand for repairs or reused textiles could be generated through public procurement guidelines, e.g. for workwear. Education and skills training are equally important when boosting the sector. Traditional skills like repairing, mending, and sewing clothes are less common now than several decades ago. Including those skills in school curricula, advertising and offering training opportunities for professionals can bring back this essential knowledge. Policymakers must render those jobs attractive again by ensuring their profitability.

Generating funds for collection, reuse, and repair can be challenging. However, the foreseen introduction of Extended Producer Responsibility (EPR) schemes for textiles in the EU can contribute to the financing, as already practised for some EPR schemes on electronics and under the French EPR for textiles.¹¹⁶ Allocating a percentage of the EPR fees to circular activities could also secure the necessary finance.¹¹⁷

Lastly, support and public investment in non-market exchange consumption models, including design and repair cafes, clothing swaps, or reuse centers can facilitate the sufficiency transition. In the Belgian region of Flanders, for example, the social business 'Kringloopwinkel' or 'Kringwinkel' sorts, repairs, and resells donated household goods while their workers' wages are partly paid by the government's social programme.

¹¹² "Fast Fashion Brands Launching Resale Platforms: Circular or Cynical?," good on you, 2022, goodonyou.eco/fast-fashion-resale.

¹¹³ "Take-back Trickery," Changing Markets, 2023, changingmarkets.org/take-back-trickery.

¹¹⁴ "Towards a circular economy taxation framework: Expectations and challenges of implementation," Milios, Leonidas, *Circular Economy and Sustainability* (2021): 1-22.

¹¹⁵ "Prohibiting the Destruction of Unsold Goods," Ökopol for EEB, 2021, eeb.org/wp-content/uploads/2021/10/Prohibiting-the-destruction-of-unsold-goods-Policy-brief-2021.pdf.

¹¹⁶ "France to pay bonus for shoes and clothing repairs to cut waste," Le Monde, 2023, lemonde.fr/en/environment/article/2023/07/12/france-to-pay-bonus-for-shoe-clothes-repairs-to-cut-waste_6050031_114.html#:~:text=The%20move%20aims%20to%20cut.%E2%82%AC25%20for%20clothing%20repairs.

¹¹⁷ i: At least 5% of the PRO resources used to promote reuse + 22 millions euros over 6 years.

"France to create a Solidarity Re-use Fund (and other re-use friendly measures)", RREUSE, 2020, rreuse.org/france-to-create-a-solidarity-re-use-fund-and-other-re-use-friendly-measures/.

Promote virtuous business models

The fact that 30% of the clothes produced every year are not sold to consumers underlines that overproduction is factored into the business model of fashion brands.¹¹⁸ To remedy this wasteful practice, new, sustainable business models must supersede the current ones.

Zero Waste Europe has laid out a guide for zero waste business models – the ‘Beyond Circular Fashion’ report – which proposes four essential criteria: design for physical and emotional durability; demand-driven production to phase out unsolds and discounts; full supply chain transparency and traceability post-sale; and, lastly, extending the use-phase after first ownership.¹¹⁹ While these criteria seem very ambitious to achieve in the current setting, there are already some examples of businesses taking another direction and implementing some of these criteria: the French association ‘En mode climat’ represents businesses with an objective to reduce the production of new clothes;¹²⁰ Brands like Vaude¹²¹ provide guides for repairing their products; the French company Asphalt¹²² launches production based on demand, designs for durability, and uses durable designs with high traceability of production and manufacture; the Finnish company R-Collection¹²³ produces high-quality, classic and timeless designs for emotional durability. Another example of extended and collective use of textiles is clothing libraries, where members pay a monthly fee that allows them to borrow a specific number of pieces in a set time.¹²⁴

Supporting sustainable business models in a wider economic and societal transition will be a key task for governments in the coming years. Establishing infrastructure, financing research and development, granting tax rebates or subsidies can boost the sector. It is important to ensure that clothes prices reflect the social and environmental costs of the product and generate living wages. Moreover, brands could be mandated to offer resale and repair to customers, and, in the long run, brands should be included in the discussions on volume reduction.

Lastly, public support for social enterprises or alternative business models such as B-Corps, as well as employee-owned businesses and cooperatives, can pave the way towards systemic change.¹²⁵

¹¹⁸ “Textiles and the environment,” European Parliament, 2022.

[europarl.europa.eu/RegData/etudes/BRIE/2022/729405/EPRS_BRI\(2022\)729405_EN.pdf](https://europarl.europa.eu/RegData/etudes/BRIE/2022/729405/EPRS_BRI(2022)729405_EN.pdf).

¹¹⁹ “Beyond circular fashion,” Zero Waste Europe, 2023,

zerowasteurope.eu/wp-content/uploads/2023/01/Jan23-ZWE_Beyond-Circular-Fashion_Report.pdf.

¹²⁰ “Nos 3 objectifs pour réduire les émissions de CO2 de la mode,” En mode climat, 2023, enmodeclimat.fr/nosobjectifs.

¹²¹ “About us. Learn everything about VAUDE here,” Vaude, 2023, vaude.com/en-INT/Company.

¹²² “Asphalte,” asphalte.com.

¹²³ “R-Collection” r-collection.com/page/12/about.

¹²⁴ “Progress towards waste prevention in Europe – the case of textile waste prevention,” European Environmental Agency, 2021, eea.europa.eu/publications/progressing-towards-waste-prevention-in.

¹²⁵ “Wellbeing Wardrobe: A wellbeing economy for the fashion and textile sector,” EEB, 2021,

eeb.org/wp-content/uploads/2022/03/Wellbeing-Wardrobe-A-wellbeing-economy-for-the-fashion-and-textile-sector-March-2022.pdf.

Sufficiency action at the local level

Our Zero Waste Cities have long-standing experience and expertise in creating and implementing zero waste strategies that effectively prevent waste.¹²⁶ While their focus has generally been on traditional waste streams like paper and bio-waste, textiles and clothing are becoming the next frontier.

Cities play a key role in the sufficiency transition. People in cities own more pieces of clothing than people in rural areas. Hence, cities must be key actors in tackling rising consumption by engaging in awareness-raising campaigns and the promotion of a reuse and repair culture. However, research is still in its infancy in this field. One comparative study of five European cities found that the following interventions can make a difference: improving collection for repurposing; access to repair facilities and second-hand markets; collaboration with local initiatives; making available physical space in the city; regulating sale times and spatial separation between retail and leisure, as well as public procurement or local target setting.¹²⁷

Some options already tested in different European countries are events for selling used clothing before the start of the school year (Greece), or the development of guidance for criteria on the reuse, repair and disposal of working clothes at the municipal level (Denmark).¹²⁸ Moreover, some good reuse policies are presented in our reuse guidance.¹²⁹ For example, public procurement criteria (e.g. the Italian municipality of Vicenza prioritised social enterprises in their tenders), reuse targets (e.g. in the region on Flanders, Belgium) and promoting a reuse culture (e.g. several Austrian federal states have implemented a 'repair bonus' which reimburses citizens up to 50% of the total cost of a repair).

Cities like Lille and Grenoble in France have restricted advertisements in public spaces, however, (private spaces like shops and public transport are more difficult to regulate or fall under fragmented levels of authority).¹³⁰ Finally, Circle Economy supported the British Fashion Institute to develop a strategy for city-wide circular fashion ecosystems for London and Leeds, based on Doughnut Economics as the guiding principle. A key challenge identified in the project was the fragmented and siloed work between players in the ecosystem.¹³¹

¹²⁶ "Definition," Zero Waste Cities, 2023, zerowastecities.eu/discover/#definition.

¹²⁷ "Dress and the city: a comparative study on clothing and textiles environment policy in five European cities," Maldini, Iran, Laitala, Vitterso, Jestratijevic, Amaral, Vladimirova, 2021.

tugraz-verlag.at/en/gesamtverzeichnis/uncategorized/proceedings-of-the-20th-european-roundtable-on-sustainable-consumption-and-production-ebook/.

¹²⁸ "Progress towards waste prevention in Europe — the case of textile waste prevention," European Environmental Agency, 2021, eea.europa.eu/publications/progressing-towards-waste-prevention-in.

¹²⁹ "Putting second-hand first to create local jobs," ZWE, RREUSE, 2021, zerowastecities.eu/tools/putting-second-hand-first.

¹³⁰ "Advertising breaks your spirit': the French cities trying to ban public adverts," The Guardian, 2019, theguardian.com/cities/2019/dec/23/advertising-breaks-your-spirit-the-french-cities-trying-to-ban-public-adverts.

¹³¹ "Creating Circular Fashion Ecosystems," Circle Economy, 2022, assets.website-files.com/5d26d80e8836af2d12ed1269/63721e522ae81f83d6b7a523_20221110%20-%20Creating%20Circular%20Fashion%20Ecosystems%20-%20A%20roadmap%20for%20systemic%20change.pdf.

Conclusion

The need for a radical shift in the fashion and textile industry towards sufficiency is evident as the industry is on track to transgress multiple planetary boundaries. Without changing the law, setting financial incentives and working towards a shift away from consumerism fueled by overproduction, this transition will not succeed.

The circular economy for textiles alone is not fit to address the overconsumption of natural resources. While it can increase material efficiency, without simultaneously applying sufficiency principles the gains in efficiency will ultimately generate further growth of material extraction.

The exceptional growth of the fast fashion sector in the past two decades was facilitated by the increasing use of cheap, synthetic fibres from fossil resources and the relocation of production to jurisdictions with poor labour and environmental standards, resulting in low prices and increased fashion consumption in the Global North.

This policy brief summarises the available options for policymakers to engender sufficiency in the fashion textile sector:

- Setting *legal boundaries* at the EU level by introducing a ban on the destruction of unsold textile goods, waste prevention targets for textiles, as well as a target for resource use while transforming the EU's waste legislation into a 'Resource Framework Directive' in line with the 1.5-degree target.
- Using *financial incentives* to drive change through Extended Producer Responsibility (EPR) schemes that incorporate tools for prevention, repair, and reuse solutions; environmental taxes on virgin material use, especially virgin plastics; and, finally, channelling investments towards zero waste businesses with an updated EU's taxonomy that prevents green-washing.
- Engendering a *sufficiency culture* via measures to disincentivise overconsumption, such as nudging consumer behaviour through public awareness campaigns and school curricula, but also more restrictive measures like 'editing out' certain unsustainable choices and restricting fast fashion advertisements. Likewise, enabling repair and reuse by making it attractive for consumers and businesses is essential. Lastly, government support for zero waste business and alternative business models is necessary to move away from the current trend-dependent business model.

Given the huge impact of price when it comes to fast fashion, measures that factor in the 'true' environmental costs are likely to drive change. Regulatory approaches are more effective than 'nudging' consumer behaviour but harder to implement. Still, we need to create a system that allows consumers to make the right choices instead of holding individuals accountable for overconsuming.

Yet, this is an emerging policy field, and the different options have only been tested and implemented to varying degrees. It is unlikely that one intervention alone can solve the issues across the sector. More research is, therefore, required to assess which option is most effective for addressing overproduction and consumption of clothing, as well as how the different options interact. We encourage governments at all levels to venture

ahead, test, and implement the presented options and best practices to help bring the textiles sector back in line with the physical boundaries of our planet. Nevertheless, the transformation of the textiles sector must be regarded as only one step in the wider transformation of the economy towards a sufficiency, well-being, and resilience-based system.

This is the first chapter out of a two-part series on fashion and textiles by Zero Waste Europe. We will explore textile circularity along the value chain in our next publication.

[Please register here for updates on our future work](#)



Zero Waste Europe is a European network of communities, local leaders, experts, and change agents working towards the elimination of waste in our society. Advocating for sustainable systems and the redesign of mankind's relationship with resources, they accelerate a just transition towards zero waste for the benefit of people and the planet.
www.zerowasteurope.eu



Zero Waste Europe gratefully acknowledges financial assistance from the European Union. The sole responsibility for the content of this material lies with Zero Waste Europe. It does not necessarily reflect the opinion of the funder mentioned above. The funder cannot be held responsible for any use that maybe made of the information contained therein.



Authors: Theresa Mörsen

Editors: Aline Maigret, Ana Oliveira, Dorota Napierska, Esra Tat, Jack McQuibban, Joan Marc Simon, Lauriane Veillard, Nanna Bille Cornelsen, Manon Jourdan

Date: September 2023

General information: hello@zerowasteeurope.eu

Media: news@zerowasteeurope.eu

Cities-related topics: cities@zerowasteeurope.eu

zerowasteeurope.eu

www.zerowastecities.eu

www.missionzeroacademy.eu

