

Ecodesign position paper: Textiles and footwear

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Authors: Kate Fletcher, Irene Maldini, Ingun Grimstad Klepp, Kirsi Laitala (Consumption Research Norway SIFO, OsloMet); Jens Måge (Norwegian Waste Management and Recycling Association), Tone Skårdal Tobiasson (NICE Fashion/UCRF).

Corresponding authors: Kate Fletcher, e-mail: kate@katefletcher.com; Ingun Grimstad Klepp, e-mail: ingunk@oslomet.no

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Background

In this position paper, we set out our view that the Ecodesign for Sustainable Products Regulation (ESPR) as currently presented in the JRC document Preliminary study on new product priorities¹ will increase, not reduce, the environmental burdens from textiles and footwear. We ask that the work with the ESPR incorporates a more empirical understanding of ecodesign, clothing consumption, and textile and fashion design. This in order that the directive will have the effect of reduced environmental burdens (including on climate) and will minimise inappropriate or unintended side effects.

We are a group of researchers, and journalists with expertise in ecodesign, clothing use, textile waste and environmental impact of textiles, predominately working in the Nordic countries. Some of our number have been working in these fields for more than 25 years. We have pooled our understanding in this document and draw upon diverse backgrounds (from beyond the Global North) and insight of the group as a whole. Our aim in writing this paper is to support the ESPR process for textiles and footwear in fostering deep and lasting environmental change.

Introduction

We applaud the efforts of the EC in regulating the textile and footwear sector and we agree in the priority that has been assigned to clothing and footwear on the bases of high consumption volumes in the EU, potential environmental improvements, and lack of previous regulation. However, it is our view that the current work with the Ecodesign Directive (ESPR) is based on some assumptions that are not in line with the knowledge that we have, nor is it targeted towards the main and interconnected challenges in clothing and textiles: overproduction and the increasing plasticization of the material content of products. These two factors are interconnected due to the fact that an increase in production is not possible without the cheap, easily available fossil fuel-based raw material for fibres, materials, dyes and other processing chemicals.

The ESPR is aimed at improving the environmental impact of individual products, and we are mindful of this aim in our comments and recommendations. However, we also wish to highlight the embeddedness of this regulation in the EU Textile Strategy, one of the express aims of which is to make “fast fashion out of fashion”.² As such we contend therefore, that it is important that none of the ESPR proposals directly lead to maintaining overproduction and to further plasticization of textile materials, as these are the drivers and enablers of fast fashion. Therefore, attention must be paid to ensure that the efforts in ecodesign (to reduce impact per product) are not outpaced by growth in the total quantity of products made.

The ESPR recommends some well-known instrumental ecodesign strategies that have been in circulation for more than 25 years.³ These strategies have had only variable success in this time. Contemporary design is a systematic activity that shapes the world through mass-produced culture, and thereby links the self, society and the natural environment. Design has tremendous impact on the way that human activities impact ecological systems. Ecodesign strategies seek to reduce these impacts.⁴ However, professional and academic communities in this field tend to focus their efforts on developing creative ideas that could hypothetically reduce impacts, rather than monitoring and assessing the effects of these ideas once they are put into practice.⁵

In the potential measures for Textiles and Footwear listed in pages 163-177 of the report, we find several issues that have remarkable importance and that are not aligned with the current state of scientific knowledge in the field:

1. The influence of technical features of product design should be addressed with caution

Some of the measures that are being proposed, notably textile durability, but also others like design for modularity and reparability, rely on specific human behaviour to have environmental benefits through reduced demand. However, such behaviour is only imagined in ecodesign literature, it is not empirically observed.⁵ Attempts to confirm such behaviour through empirical research for durability, for instance, have concluded that it only applies in a minority of cases.⁶

We have set out the relationship between durability, clothing and footwear volumes and increasing environmental impact in another position paper.⁷ In summary: new clothes and footwear are seldom acquired to replace out-worn items in rich, western societies, such as in the EU, two thirds are replaced for other reasons. Therefore, making clothing last longer, through for example, using fading, shrinking, pilling, and abrasion parameters, only has a minor impact on how much is bought, and thus does not positively influence total measures of environmental impact.⁸ The effects of product reparability and modularity on user behaviour and new product demand have not been studied, but we expect a similar result.

More durable products increase the environmental burden

Unless strategies to create more durable products are paired with initiatives to actively reduce the quantity of products produced/imported; environmental burdens will increase. This is because more goods are in circulation, with each one drawing down resources in its manufacture and use.⁹ The problem in textile products is not that they are not durable (they are) – but that their potential durability does not get ‘used up’ by their wearers, i.e. they are thrown out long before they are worn out.¹⁰ As a result, discarded textiles and clothing ends up as waste in the EU, or are exported.¹¹ What is required is not a unilateral increase in durability, but rather a multilateral approach to product life extension which also includes a reduction of production volumes, otherwise impacts increase.

The relationship between quality and quantity is the opposite of what is assumed in the argument put forward in the ESPR. If less was imported, we would be forced to use the existing items longer. Indeed, the erroneous belief that new products supplant existing items in the wardrobe, also applies to new innovations, including business models like rental. For instance, it has not been documented to what extent renting or other systems of sharing garments replace the purchase of new items and thus what are their environmental gains. The reference in the JRC document used to substantiate this connection takes these gains as a premise, but does not provide evidence for this.

Further complicating the faulty assumptions about strategies that unilaterally promote durability; current requirements for measuring durability – strength and “quality” especially if calculated per unit of weight – favour petroleum-derived plastic materials, because polyester (the most widely used fibre in the textile industry) is so much stronger and lighter than natural fibres. The consequences of quality being measured in this way can be seen to be in direct opposition to the Global Plastic Agreement (GPA)¹² and also not in line with the EU Textile Strategy. The GPA will demand a drastic

reduction in the use of plastic materials, including synthetics in textiles. The favouring of petroleum-based materials is also not in consumers' interests as synthetics are not fit for purpose for many of the products they now are showing up in. Evidence shows that consumers prefer natural fibres and use them longer, in spite of them being less technically "durable".¹³ Garments and footwear in natural fibres and materials are also reused more than synthetic ones.¹⁴

Suggested recommendations to support durability strategies in driving environmental improvement:

- Develop durability-related regulation in a more targeted way. We propose that restrictions and requirements for technical durability, be limited to those products that are typically purchased as replacements for damaged products. One example is hosiery and tights.
- Determine which products would require studies to be first carried out to document which these are. Further this more targeted regulation would set strength requirements differently for synthetics, synthetic mixes and natural fibres.
- Use product type and not weight as unit of measure.

Repairability is linked to skills, not products

Clothes and other textile products are mainly repairable, upgradeable and throughout history they have been objects for repair and adaptation to the user and changes in taste and body measurements. When little is repaired today, it is not because items cannot be repaired, but because it costs less to buy new, and because the value for the owner is too small.¹⁵ There is no research, as far as we know, that documents that the provision of extra buttons or instructions for repairing clothes actually results in them being repaired more often. Yet in favouring these interventions, this can be seen to "shift the burden" of environmental impact mitigation from design and production to use and wearers, even when production causes the most impact and is the area of the lifecycle where most environmental gains can be made.

Suggested recommendations to enhancing the potential for repair:

- Commission detailed empirical work around what is repaired and what is not, and which elements of clothing make repairs difficult. This might include: electronics that are embedded in clothes, and the incorporation of elastane, but can also include other specific design elements such as glued-on sequins, etc.
- Further define regulation so that disposable textiles, i.e. textiles that cannot be cleaned, and "pre-distressed" products, such as new jeans which are chemically or mechanically aged before sale, are included in the "non-repairable product" category. Commission research to identify what disposable and non-repairable products are and how they can be prevented from entering the market.
- Examine related measures to increase repair, such as better guarantee schemes, and measures that make today's consumer rights work better. Training in school and other measures for training, access to sewing machines and other equipment for all are also important. Many repairs are currently done in private and measures should take this into account.

2. The significance of fibre in the total environmental impact of the sector, and the favouring of synthetics

The second issue that we believe deserves special attention and revision in the ESPR is the issue of fibres. Fibres are important for the usability of products, and these products' possible reuse and recycling. Yet extracting and/or cultivating fibres only account for between 10 and 12 percent of environmental impacts across the lifecycle. Spinning, weaving, dyeing, finishing and assembly, by contrast, account for 63 to 65 percent of lifecycle impact.¹⁶ Despite this, the JRC document on ESPR chooses to focus on raw materials, and not the industrial processes within textile, clothing and

footwear manufacturing, with the result that the possibility of reducing the actual environmental impact is small. It is our view that the ESPR could drive environmental improvements further and faster by targeting processing more. In addition, the processing of fibre, fabric and textile product is where data, and especially that on GHG emissions, are more easily accessible.

Requirements for lower environmental impact: target processing not materials

Today there is no consensus or method for comparing fibres and other materials' environmental impact, and the existing systems and tools lack both empirical and methodological rigor.^{17 18} Existing systems, for instance, systematically favour plastic fibres, despite well-known and emerging impacts in terms of GHG emissions and synthetic microfibre pollution, among others.^{19 20} However, the JRC document on ESPR is based on a belief that environmental impact assessments are credible and that knowledge and systems suitable for calculating and comparing environmental impacts at product level exist. We have previously explained this connection linked to the work with PEF,²¹ and believe that the arguments set out there go a long way to justifying a change in course of action.

We believe the JRC document on the ESPR cites studies related to fibres and apparel that are outdated, such as that regarding postulated difference in water use between conventional cotton and organic cotton, which has been shown to contain faulty data. One of these studies has been called out by the Norwegian Consumer Authority as being invalid for use in green claims (related to water-consumption in cotton production).²² The use of discredited data illustrates a main point: the data situation for environmental impact is precariously poor and not suitable as a basis for policymaking.

It is our view that setting maximum requirements for water consumption in cotton fibre cultivation will not be workable, as water consumption varies from region to region, and from year to year.²³ Further, in some regions most cotton is rain-fed,²⁴ making maximum water input the wrong target for scrutiny. Further problematising such a target, it may lead to increase in environmental impact, should the cotton farmer switch to rice cultivation (which uses more water and emits more methane), or elect not to irrigate the cotton during periods of drought (and so lose an entire crop). The major challenges created by changing weather conditions also mean that the problems such regulation may create for farmers ought to be approached with caution. These actors and knowledge-holders are among the most vulnerable and underpaid in the textile value chain.

Suggested recommendation for data-use that can be documented:

- Environmental requirements and labelling should be rigged for conditions that can be documented and where the environmental impacts are the greatest. The focus on resource use, including chemicals, energy, water and the industrial processes (spinning, weaving, dyeing and finishing) should be enhanced. The directive will be an important means of reducing the use of dangerous chemicals which is an important measure in itself, for the health of consumers and workers and for the possibility of safe future recycling.

Requirements for recycled content:

While it is our view that recycling should be encouraged at an industrial level, we see that requirements for recycled content favour synthetics, as this is easier to source (mainly as rPET from bottles). One needs to be aware of potential unintended effects. A recent study points to recycling of synthetics and plastics as a source for microplastic release.²⁵ Mechanically recycled fibres are for instance in general, of inferior quality. There are examples of end uses where quality of the fibre (staple length and other features that virgin fibres can deliver on) is demanded, such as traditional clothing and handicrafts, among others. Mandating recycled content for small-scale practices, such as art, indigenous dress and crafts will undermine these practices, with consequences for cultural heritage and traditional practices.

Suggested recommendation for recycled content:

- Requirements for recycled content should start with synthetic textiles and limited to the content of fibre-to-fibre recycled materials, and thereby exclude rPET from plastic bottles.
- If requirements for recycled content are to apply to natural materials, this should exclude small-scale production, as to not affect quality craft products, indigenous dress and art.

Better utilization of the EU's natural materials

JRC's document on the ESPR pays little attention to the traditional and natural materials produced in the EU as viable fibre systems in their own right other than in relation to replacing cotton. ESPR is not aligned with EU's new Soil Mission (nor Farm to Fork, which could easily be Farm to Fashion). Much could be done to utilize EU's raw materials better. Currently 80% of EU's wool is thrown out or burned according to our estimates,²⁶ and Fibershed.org, a philosophy and practice for cultivating and processing clothing locally, is spreading in Europe as a grassroots movement.²⁷ Agriculture with a mix of food and fibre production offers a way forward for regenerative farming. It is our view that better use of European resources for textile production should not be used instrumentally for replacing specific imported raw materials (cotton); but be anchored in the idea of good resource utilization, appropriateness for local contexts and regenerative agricultural practices, which are at the core of the new Soil Mission.

Suggested recommendation to enhance the use of European fibres:

- Use the ESPR to garner political support for local fibres and materials for textile production where possible (wool, linen, hemp, nettle, surplus straw from cereal grains (wheat and oats), fur and skins from hunting, livestock, fish, seals, etc.) to increase the effectiveness in use of existing resources and to foster agricultural practices focused on soil health. Promoting diverse local responses to fibre cultivation and dress would require review of labelling schemes for European fibres, as well as of regulations and the legal aspects around trade, processing and infrastructure. As many fibre farmers and processors and entrepreneurs are women, this work will also support small and micro-enterprises and women in European agriculture and entrepreneurship.

3. Lack of attention to sizes and sizing systems

Research has shown that poor fit and sizing issues are just as important as wear and tear for clothing disposal in EU.²⁸ The fact that approximately one-third of clothing is discarded due to problems with fit and sizing, is a fundamental issue that is not being addressed in ESPR. Better fit, more correct labelling of fit, is a design problem with the potential for major improvements both in terms of environmental impact and for the individual consumer. This includes everything from updated measurements of EU's population, better systems, better grading (especially of large sizes) and better and more correct labelling.²⁹ ³⁰Fit is also important factor in returned goods, a growing problem due to the rise of internet shopping.³¹

Suggested recommendation to take account of sizing:

- Expand the work with ESPR to include fit and size. Set requirements for better sizing, labelling and grading of clothing on the market in the EU (including direct import via the internet). This could include using fit prediction technology.

4. Differences within the product groups

ESPR is structured around product groups, yet further nuance is required to recognise the difference within these groups in order to better target opportunities for environmental improvements. For instance, textile products are categorised together with footwear, and while there are commonalities, there are also differences, often related to technical features and differences in

consumer behaviour within the product group; with strategies not universally relevant. Without more tailored regulation, niche product-related strategies (such as modularity (p46), for instance) will be given the same weight as those with more power to affect change (like design products for a maximum level of GHG emissions across the lifecycle (p46)). They will also serve as a diversion from core environmental improvement work. Ecodesign cannot deliver improvements in areas where design improvement possibilities are, at best, marginal.

Suggested recommendation for taking account of differences between products:

- Build more nuance into regulation to reflect insights of empirical evidence more closely.
- Grow regulation that reflects real-world dynamics within product systems, supported by empirical studies.

Concluding remarks

In this position paper we have sought to show how drawing upon knowledge of practice and scholarship can support this process. Ecodesign strategies have, for instance, more than a quarter of a century of investigation and deployment to draw upon, and understanding of how these strategies are nested together within larger systems. We will write a follow-up position paper in which we see the various instruments in tandem and also in connection with the amendments the EU has recently adopted for the year-old Textile Strategy.

Central to our work is a version of Extended Producer Responsibility (EPR), which we call Targeted Producer Responsibility (TPR). TPR is an instrument which mobilises the use and end-of-life phase as the basis for data collection.^{32 33} Its main premise is those manufacturers who make products that are used the longest and the most will pay the least. The system is based on picking analyses of discarded textiles from waste streams within the EU. It will be possible to use the same method combined with other methods to investigate the relationship between design (durability, design strategies and business models) and actual lifespan. We also need to build knowledge of the degree of replacement for various product groups and business models. We hope that the further development of ESPR will build on the expertise and insight we have highlighted in this paper and contribute to developing further understanding where this is lacking.

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