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Policies for plastic reduction: a clothing companies perspective

This advocacy policy brief is a reaction to the rising quantity of textile products put on the market, the increasing presence of synthetic content in them, and the associated negative ecological implications. It provides **policy recommendations** to reverse such trends building on the experience of clothing companies that are working in this direction.

1. **Stop the promotion of plastics**

The cost of synthetic fibers is artificially low due to states and publicly funded banks' subsidies to the petrochemical industry. Fossil-based textiles are further promoted by recycling policy, but deviating plastics that could be used multiple times in packaging into textile fibers (which cannot be effectively recycled further) does not contribute to a more sustainable economy. Plastic pollution has been consistently left out of LCA-based impact metrics like the EU's PEF. Overlooking factors such as microplastic release during use and at the end-of-life favors synthetics in comparative measurements of different fibers' ecological impact. Companies that are resisting the influence of these trends in their material decisions urge policy to act by stopping all forms of plastic promotion.

2. **Develop political tools that reduce *plastification***

The textile policy landscape in Europe is rapidly developing, but the instruments that have emerged are not focusing on the challenge of textile *plastification*. For instance, EPR schemes do not discriminate the impact of different materials at the end of life, nor do they address the value that clothes have for users. Alternative systems have been proposed to base eco-modulation fees on the speed in which garments arrive to waste streams after production.[1] Taxes targeting plastics could also compensate for the comparative low price of synthetic fibers. Product durability operationalized as the duration of service of products in use, rather than on the mechanical resistance of fibers, could also help in reducing *plastification*. Moreover, consumers may not be aware that they are increasingly wearing plastic and considering the health implications. The information displayed on clothing labels could be more strictly controlled, further discriminating between those of fossil or plastic origin and other materials.

3. **Promote alternatives in natural materials**

Companies trying to avoid or reduce synthetics struggle with their comparative availability and physical advantages for production and use. Sometimes the obstacles are not related to higher costs, but to lack of viable alternatives. They stress the need for tools that compensate the bias of production technologies and material innovation towards synthetics, for instance by R&D funding instruments focused on natural materials. The cultural heritage associated to locally sourced materials is another corrective policy angle that could be taken to preserve local knowledge and resources.

Why are these recommendations important?

The growing quantity of clothes in circulation and increasing use of synthetic materials are among the main environmental challenges of the textile sector. Although material choice has been overemphasized in discussions about the environmental impact of textiles, the two challenges above are intertwined. The use of synthetic materials has enabled fast growth in production volumes, and therefore confronting synthetics may enable a path towards production reductions and waste prevention.

Synthetic fibres are now more common than natural materials in textiles. More than half of the textile fibres produced globally are polyester fibres.[2] Seventy per cent of all textiles are used for wearable clothing,[3] and Europe is the main importer of clothing globally.[4] Although all materials involve environmental impact, a specific problem of synthetic clothes is plastic pollution. Textiles release nano, micro, and macro level material during use and at the end of life, and this is particularly problematic for fossil-based materials.[5] Traces of plastics have been found in animals, human bodies, and remote places with little human activity, and the human health and ecological implications are only starting to be studied.[6]

Recycling is proposed as a main solution for the increasing amount of plastic in circulation, but research shows that upstream policy interventions such as caping virgin plastic production would be far more effective.[7] Moreover, efforts to implement chemical recycling face significant technical challenges and have not delivered reductions in virgin materials.[8] Therefore, this brief turns the attention to clothing companies that are trying to resist the trend of textile *plastification* to gather alternative policy recommendations.

Where is this policy brief coming from?

As one of the deliverables of the "Deplastification" research project carried out by Consumption Research Norway (SIFO, OsloMet) and funded by the Norwegian Retailers' Environment Fund, this brief aims at communicating its main findings and further elaborate on the policy recommendations that emerged from it. For more detailed project outcomes, please see the related academic article.

We conducted interviews with representatives of 15 companies that used a relatively low level of synthetics in their total materials, or that were effectively working towards

reducing it. Companies communicating publicly about avoiding synthetic materials, including the use reduction targets, were also eligible. Participants include individual clothing brands, brands groups, and material producers. Some offer a specific product range, namely only bags, shoes, T shirts, denim products, performance sportswear or underwear. Others offer a complete range. Their size varies from one to 19,000 staff members, with a mean of 1,582 members. Most of the companies have their headquarters in Europe, and two of them operate from the USA. They can be clustered in three groups: companies born plastic-free, companies with a strong material heritage (self-defined as being a cotton or wool company), and companies confronting synthetics as part of their sustainability or quality strategy.

Results:

Some of the **strategies used by participants to confront the use of synthetics** include starting from a plastic-free approach, keeping a narrow product range, having a brand identity linked to natural materials, 'closing the door' to synthetics, engaging in natural materials' research and development, and policy work.

The **challenges experienced** by them in their efforts are the comparative price and competitiveness of synthetic vs. natural materials, difficulties in enabling elasticity, durability and impermeability with natural materials, the narrative of plastic recycling as a solution to the environmental burdens of synthetics, the development and use of partial sustainability indicators, biased production technology, fashion trends requiring material properties aligned with those of synthetic fibres, and difficulties in finding alternatives for details such as sewing threads.

Some of the **enablers to confront synthetics** include, the vision or idealism of the company leadership, the development of new sustainability policy, demand for low or no synthetic content by clients, public and legal demand for transparency and accountability, and engaging in recycling and promoting intensive use of their own products.

Policy recommendations by interviewees:

1) **Stop subsidies to petrochemicals:** Companies argued that the low cost of synthetic materials is a result of misuse of public funds (e.g. through subsidies) and asked for it to stop.
2) **Confront overproduction:** Stronger control and sanctions for unsold inventory or big discounts could help to address irresponsible production volume decisions by companies.
3) **True pricing:** Internalizing the environmental and social of costs of synthetics (e.g. costs of microplastic pollution), could compensate current cost imbalances.

4) **Discriminate tax rates:** Flat VAT rates lead to smaller taxes paid by cheaper products, which often include higher synthetic content. This could be reverted by using different rates.
5) **Improve metrics:** LCA-based impact metrics tend to exclude plastic pollution and the use value of different products for people. They should therefore be reconsidered, especially when used for policy by public institutions. Comparative impact tools should be applied not only at a product but also at a company level.
6) **Focus on fibre-to-fibre recycling:** Recycling policies can provide a false end-of-life scenario for plastics and promote more synthetics in textiles (e.g. use of PET bottles as source material). But a stronger focus on fibre-to-fibre recycling within companies could discourage blends and promote mono-materials, arguably favouring natural ones. Specific requirements are suggested to avoid undesired outcomes.
7) **Value cultural heritage and therefore local materials:** Local knowledge on producing with and using local natural materials is being lost in line with increasing synthetics. The heritage angle is one that local policy could use to reverse this trend.
8) **Support R&D for natural materials:** Production technologies are being adapted to the increasing use of synthetics in blends, promoting them further. This could be balanced by specific R&D instruments supporting technology for natural fibres, keeping them competitive.

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