AWI submission on Preparatory study on textiles for product policy instruments – Milestone 2

References	Introduction, lines 33 – 34; Methodology, lines 46 - 48
Concern	One of the most important determinants of a product's environmental impact is its lifespan, which for textiles is the number of times it is worn before disposal. The assumption that the methodology for Ecodesign of Energy-related Products MEErP is a good fit for the textile product category is unproven and highly unlikely to be sound, given **the differing drivers of product lifespan**.
Context	Whitegoods like dishwashers and washing machines are normally used until worn out, but considerable research shows the great majority of clothing is thrown out before worn out. Clothing is integral to the owner's persona and their preferences change over time. The owner's body size also changes, affecting garment fit and hence lifetime. In combination, these two effects have been shown to dominantly influence clothing lifespan. The fluidity of these lifespan-determining impacts means it's not possible to reliably predict lifespan at the design stage of clothing. https://clothingresearch.oslomet.no/2022/10/19/review-of-clothing-disposal-reasons/
A better way	A more robust measure of lifespan will be possible following implementation of the Digital Product Passport (DPP). DPP-derived data from waste collection facilities can report the average lifespan of clothing made by brands and this evidence-based measure can then inform the environmental score for that brand's current clothing (in the same product subcategory). The brand's score would be progressively updated as their newer products came onto the market and gradually made their way to waste collection facilities. Such a system would be: credible and evidence-based; low cost; present no barriers to SME involvement; motivate brands to produce long-lived clothing; and also deliver Green Deal strategies like putting fast fashion out of fashion. In short, this retrospective end-of-life tool would be much more meaningful and effective than attempting to 'guestimate' clothing lifespan at start-of-life - as PEF currently attempts to do.

Reference	Life cycle stages, lines 478 - 518
Concern	Clothing made from natural raw materials (I.e. cotton, wool and linen) has **a wider system boundary** than clothing made from fossil fuels (i.e. nylon and polyester), resulting in inequitable comparison.
Context	PEF assesses impacts across the product's entire lifecycle, from cradle-to-grave. However, the meaning of "cradle" differs based on raw material type. For natural fibres, the impacts of fibre formation are fully accounted, including the farm's greenhouse gas emissions, land area, water use, fuel use, and more. But for fossil fuel-based products, the impacts of forming oil are not counted - only the impacts from the extraction phase onward are counted.

	This methodology entirely excludes the natural processes that formed these resources over millions of years, thereby granting synthetic fibres an unjustified advantage. Since the majority of wool's lifecycle impacts occur during fibre formation, the omission of comparable data for synthetic fibres magnifies the inequity between wool and fossil fuel-based textiles. Far less land is used by a drilling rig to extract oil than the land area needed to farm natural fibres. A recently published study showed natural fibre farming used 60 times more land, 27 times more water and emitted 90% more greenhouse gases than extraction of fossil fuel to produce the same quantity of raw material. These are heavily weighted impacts in PEF, meaning the system boundary difference results in natural fibres textiles scoring significantly worse in PEF. https://www.mdpi.com/2071-1050/14/24/16683
A better way	With fossil fuel-based products benefitting from an environmentally 'free' raw material, and natural fibre products having no such benefit, an equitable comparison is not possible. **This makes a massive difference to the PEF score**. International standard IS0 14044 specifies that the same system boundary must be used for equitable comparisons. PEF must be updated to comply with the IS0 14044 requirement that "the appropriateness of the system boundary shall be considered as part of the interpretation process."

Reference	Negative environmental impacts, lines 519-638
Concern	The overriding focus on assessing environmental harm, inherent in PEF's 16 indicators, **ignores positive impacts from farming natural fibres**, thereby biasing against them.
Context	Production of natural fibres captures and sequesters atmospheric carbon during pasture growth, enhancing soil health and farm resilience. Regenerative farming practices foster biodiversity by maintaining complex ecosystems on the farm. These fibres are not merely renewable, they actively contribute ecosystem services that mitigate climate change, prevent land degradation, and support a healthier and more diverse environment.
A better way	Recital 32 of the Green Claim Directive states: "As regards foods and agricultural products, biodiversity and nature protection, as well as farming practices, including positive externalities of extensive farming and animal welfare, should, for example, also be integrated before the adoption of the PEFCR" PEF may evolve to measure positive impacts over time, but it cannot provide a level playing field across textiles until then. Unwarranted collateral damage would be done to natural fibre industries - so PEF should not be adopted until it measures the positives.

References	Introduction, lines 4 - 5
Concern	ESPR will be unable to deliver the Circular Economy Action Plan goals because of PEF's **overly narrow a view of circularity.**
Context	PEF's Circular Footprint Formula (CFF) attempts to reward products made with recycled raw materials but overlooks the benefits of virgin materials with inherently circular attributes – including, renewability, recyclability and biodegradability.

	Importantly, sustainability in the long term is not possible without the use of products that are renewable and biodegradable – fossil fuels will eventually run out. This very narrow view of circularity appears to arise from: • PEF's commencement in 2013 preceded the introduction of CEAP when circularity became more highly valued; and • The designers of PEF didn't contemplate the complexities of product categories that include both natural and mined raw materials. Most products are either one or the other (i.e. food is natural and white goods are mined), so they didn't perceive a need to reward renewability and biodegradability.
A better way	The problem of overlooking the advantages of renewability and biodegradability could be addressed by complementing PEF with a circularity indicator such as the Ellen MacArthur Foundation's Material Circularity Index or WBSCD's Circular Transition Indicator (CTI). This enhancement would significantly increase ESPR's alignment with delivery of the Circular Economy Action Plan (CEAP). Using LCA and Circularity Indicators to Measure the Sustainability of Textiles https://www.makethelabelcount.org/ Delivering EU environmental policy through fair comparisons

References	Introduction, 25-29; Aim, lines 36 -44
Concern	Failing to deliver the EU's important strategy to 'tackle fast fashion' by **overlooking the impacts of plastics.**
Context	The increased availability of cheap synthetic clothing has been shown to be a key enabler of fast fashion, **yet none of the major environmental impacts of synthetics are accounted for in PEF** scoring of textiles (non-biodegradable, non-renewable, microplastics). NB: Microplastics have not been included as a weighted metric in PEF, so have no influence on the PEF score. The proposed approach of reporting microplastics together with microfibres from natural fibres as 'additional information' will not be visible to consumers. The Rise of Lifecycle Analysis and the Fall of Sustainability: Berlin 202030 — Veronica Bates Kassatly The environmental Price of Fast Fashion) Critical Review of Product Environmental Footprint (PEF) (2).pdf
A better way	As per the point above, complementing PEF with a circularity indicator such as the Ellen MacArthur Foundation's MCI or WBSCD's CTI would also improve ESPR's ability to tackle fast fashion and deliver CEAP. Additionally, PEF must include a plastic waste indicator to deliver the fast fashion strategy and be consistent with EU directives on plastic waste. Using LCA and Circularity Indicators to Measure the Sustainability of Textiles https://www.makethelabelcount.org/ Delivering EU environmental policy through fair comparisons

References	Relevant product aspects, lines 2619 – 2631; Physical Durability, lines 2802 - 3811
Concern	Favouring plastics by **overweighting the importance of physical durability** testing.

Context	PEF methodology significantly overweight's the influence of physical durability on service life. Garments need to be strong enough to provide a long use phase, but evidence linking superior strength to increased textile longevity is lacking. Synthetic fibre products consistently outperform natural fibre products in most physical durability tests due to the high tensile properties of fossil fuel-based textiles (IWTO Position Paper 1). However, the strength of a garment is not the dominating factor determining whether consumers keep it. Evidence confirms that consumers keep/discard garments based on perceived value, quality and fit. https://clothingresearch.oslomet.no/2022/10/19/review-of-clothing-disposal-reasons/ Additionally, there is no robust or evidence-based way to weight and amalgamate the different physical test results together with other attributes into a single score.
A better way	An Ecodesign for textiles scheme that priorities physical durability test performance, in the absence of evidence that strong physical performance increases lifetime, will significantly bias in favour of clothing made from synthetics. Why would the EU implement a design directive that will deliver the opposite to its policy of putting fast fashion out of fashion? A more robust measure of lifespan should be applied (i.e. use of DPP-derived data from waste collection facilities as described above). In the absence of a more robust measure, the necessary research must be undertaken to identify, measure and weight the factors proven to determine textile longevity.

Reference	Textile fragmentation, lines 594 - 624
Concern	**Overlooking microplastics** Green Claims Directive Recital 32 states "the adoption of PEFCR may take place only once these new relevant environmental impact categories have been added" and "as regards textiles, the PEFCR should for example reflect the microplastics release, before the adoption of PEFCR could be considered". This requirement has not been met.
Context	The PEFCR's are being proposed for final approval and for use in ESPR, with the presence microplastics in clothing having no impact on the PEF score. Rather, they will be reported as "additional information" in the most minimalistic way. • Microplastics will be as amalgamated with microfibres from natural fibre products even though natural fibres have been worn for thousands of years without microfibres building up in the environment or our bodies or impacting human health. • They will only be reported for the laundering stage-only, even though the great majority of microplastics are released from other life stages, particularly end-of-life, which is estimated to make up 88% of the total plastic leakage – with this plastic eventually breaking down to microplastics. *https://doi.org/10.1038/s41467-024-49441-4* Furthermore, a new report by the Bremen Cotton Exchange highlighted the growing evidence of harm caused by microplastics, linked to health issues such as heart attacks, strokes, dementia and death. The report emphasizes the needs for warnings on products containing synthetic fibres due to their hazardous chemicals. An additional report highlighting health concerns related to microplastics was published in the Nature Medicine journal, finding high levels

	of microplastics in brain samples. This increasing evidence on the health risk microplastics can cause, needs to be considered by new legislation such as the ESPR.
A better way	Recital 32 should be properly complied with. Microplastics should be accounted for across all life stages, as is the case for all other PEF impact categories. The argument proposed to the Technical Secretariat that accounting for microplastics in other life stages must wait "until the science comes in" is inadequate. Many other aspects of the PEFCRs lack scientific evidence but the Technical Secretariat was consistently encouraged to progress methodology development using 'expert opinion'. Expert opinion may be far from optimal but is still better than entirely ignoring impacts!

Reference	PEF Guidelines
Concern	Disadvantaging raw material sourcing countries through **EU-centric characterisation factors.**
Context	PEF impact categories such as climate change, land use, ecotoxicity, acidification and eutrophication are based on European-default characterisation factors. With the farming stage typically dominating the environmental impacts of natural fibre products, PEF scoring must reflect the regions where those impacts are experienced. Application of default EU characterisation factors to remote countries with vastly different climatic and environmental conditions to the EU often significantly over-estimates environmental impacts experienced in those countries.
A better way	Characterisation factors in PEF should be amended to ensure impacts are relevant to the regions where the impacts occur.