



Preparatory Study on Textile Products

Workshop with stakeholders

14-15 January 2026

WEBEX SESSION

ETIQUETTE FOR VIRTUAL MEETING PARTICIPANTS

- ❖ Please indicate your **NAME, SURNAME** and **ORGANISATION** on Webex
- ❖ **MUTE YOUR MIC AND SWITCH OFF** your **CAMERA** (unless you have the floor)
- ❖ **POST** your **QUESTIONS** in the **WEBEX CHAT** Box. You will be **INVITED** to take the floor to formulate your question **ORALLY**.
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Preparatory Study on Textiles for product policy instruments

Online Workshop on 3rd milestone – Day 2
15 January 2026

Joint Research Centre (JRC)

DELRE Antonio, GONZALEZ TORRES Maria, KOULOUMPIS Viktor, SENATORE Vincenzo, PEREZ ARRIBAS Zahara, BERNAD BELTRAN David, PEREZ CAMACHO Maria Natividad, SYRUS Anandu, MAGRINI Chiara, ALBIZZATI Paola Federica, CAPPUCCI Grazia, ARDENTE Fulvio, GARCIA JOHN Enrique



Aim of the meeting

- JRC is supporting the development of the first Delegated Act under the ESPR.
Addressing textile apparel
- Background to this online consultation: documents shared on 16 December 2025
- Purpose is to verify the work done to date and to collect additional information and views
- Comments to be provided in writing until 23 March 2026



Agenda

| Time (duration) | Topic |
|------------------------|---|
| 09:15-09:30 (15 min) | Log-in and preparation |
| 09:30-09:35 (5 min) | Presentation (Chair) <ul style="list-style-type: none">• Housekeeping rules• Structure of the meeting |
| 09:35-10:05 (30 min) | Presentation (JRC) <ul style="list-style-type: none">• Description of DO1 on robustness Questions and answers |
| 10:05-10:35 (30 min) | Presentation (JRC) <ul style="list-style-type: none">• Description of DO2 on recyclability Questions and answers |
| 10:35 – 11:05 (30 min) | Presentation (JRC) <ul style="list-style-type: none">• Description of DO3 on recycled content Questions and answers |
| 11:05 – 11:25 (20 min) | Break 1 |
| 11:25 – 11:55 (30 min) | Presentation (JRC) <ul style="list-style-type: none">• Description of DO4 on environmental and carbon footprint Questions and answers |
| 11:55 – 12:25 (30 min) | Presentation (JRC) <ul style="list-style-type: none">• Definition of paths• Results of paths Questions and answers |
| 12:25 – 12:45 (20 min) | Break 2 |
| 12:45 – 13:25 (40 min) | Presentation (JRC) <ul style="list-style-type: none">• Substances of Concern Questions and answers |
| 13:25 – 13:30 (5 min) | Closure of the workshop |



Meeting etiquette

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Design option 1 on robustness



DO1: Product with increased **robustness**

- Decrease the environmental impact of products by diluting one-off effects
- Information requirement based on a **scoring system on robustness** (0-10 scale)
- **Assumptions**

Service lifetime 5% ↑ Energy ≈2% ↑ Fibre ≈0.5% ↑ Water use ≈1% ↑ Chemistry ≈ 2%↑

Costs of testing 0.05€/unit

Costs of label 0.02€/unit

- Further characteristics:
 - **Robustness ≠ durability ≠ service lifetime**
 - A **known** increase of performance of key parameters corresponds to an **unknown** increase of durability
 - Highly dependent on the **consumer behaviour**

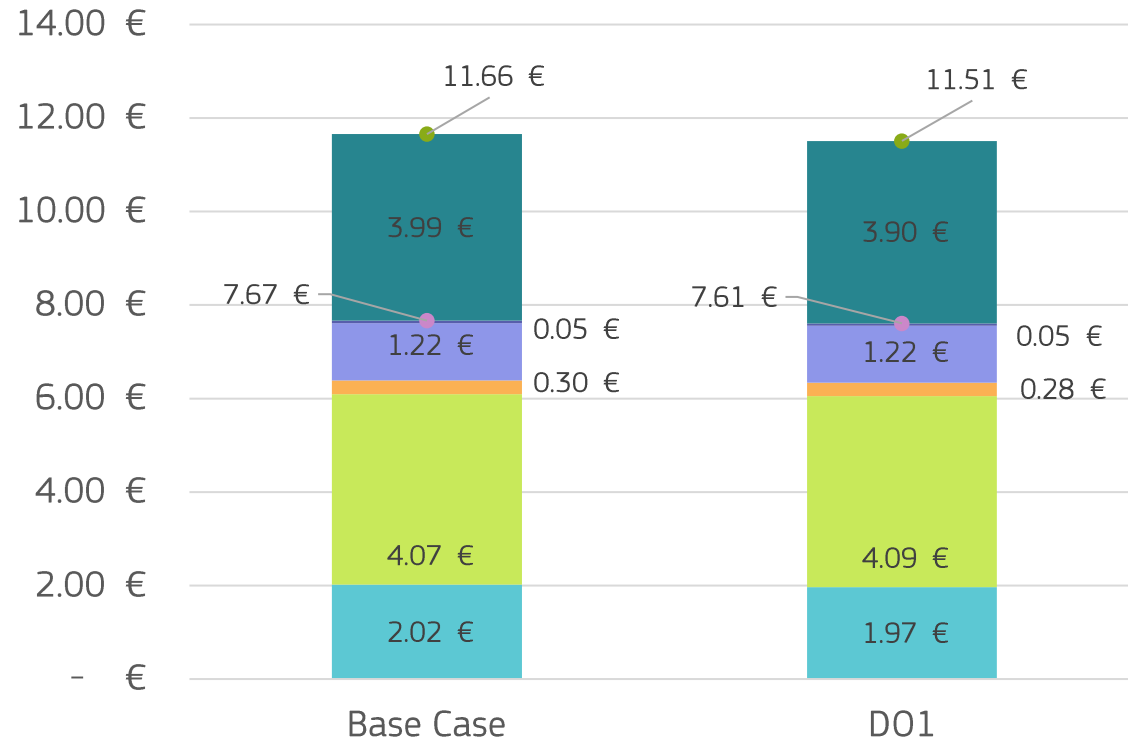


Robustness score

| Parameter | ISO standard | Fabric construction | Test result | Points |
|---|--------------|---------------------|------------------------------------|--------|
| Spirality | 16322-3 | Woven | Spirality > 6% | 0 pt |
| | | | 5.5% < spirality ≤ 6% | 1 pt |
| | | | 5% < spirality ≤ 5.5% | 2 pt |
| | | | Spirality ≤ 5% | 3 pt |
| | | Knitted | Spirality > 7% | 0 pt |
| | | | 6% < spirality ≤ 7% | 1 pt |
| | | | 5% < spirality ≤ 6% | 2 pt |
| | | | Spirality ≤ 5% | 3 pt |
| Dimensional change | 3759 | Woven | Change > ±4% | 0 pt |
| | | | ± 3.5% < change ≤ ± 4% | 1 pt |
| | | | ± 3% < change ≤ ± 3.5% | 2 pt |
| | | | Change ≤ ± 3% | 3 pt |
| | | Knitted | Change > ± 6% | 0 pt |
| | | | ± 5.5% < change ≤ ± 6% | 1 pt |
| | | | ± 5% < change ≤ ± 5.5% | 2 pt |
| | | | Change ≤ ± 5% | 3 pt |
| Colour, fabric, seams and non-textile parts via visual inspection | 15487 | All | < 3. Moderate change in appearance | 0 pt |
| | | | 3. Moderate change in appearance | 2 pt |
| | | | 4. Negligible change in appearance | 4 pt |



DO1: Product with increased robustness



Knitted

- Spreading the impacts of all lifecycle stages (except the use stage)
- **Reduction** on the **environmental impact**: 2.2%
- **Decrease** in the **internal costs**: 0.8%
 - Despite the increased water, energy, chemicals, and fibres affecting LCS1 and LCS2
- **Decrease** in **societal costs**: 1.2%

■ LCS1 Raw Materials
 ■ LCS2 Manufacturing
 ■ LCS3 Distribution
■ LCS4 Use
 ■ LCS5 EoL
 ■ Env. externalities
● Internal cost
 ● Societal LCC



DO1: Product with increased robustness



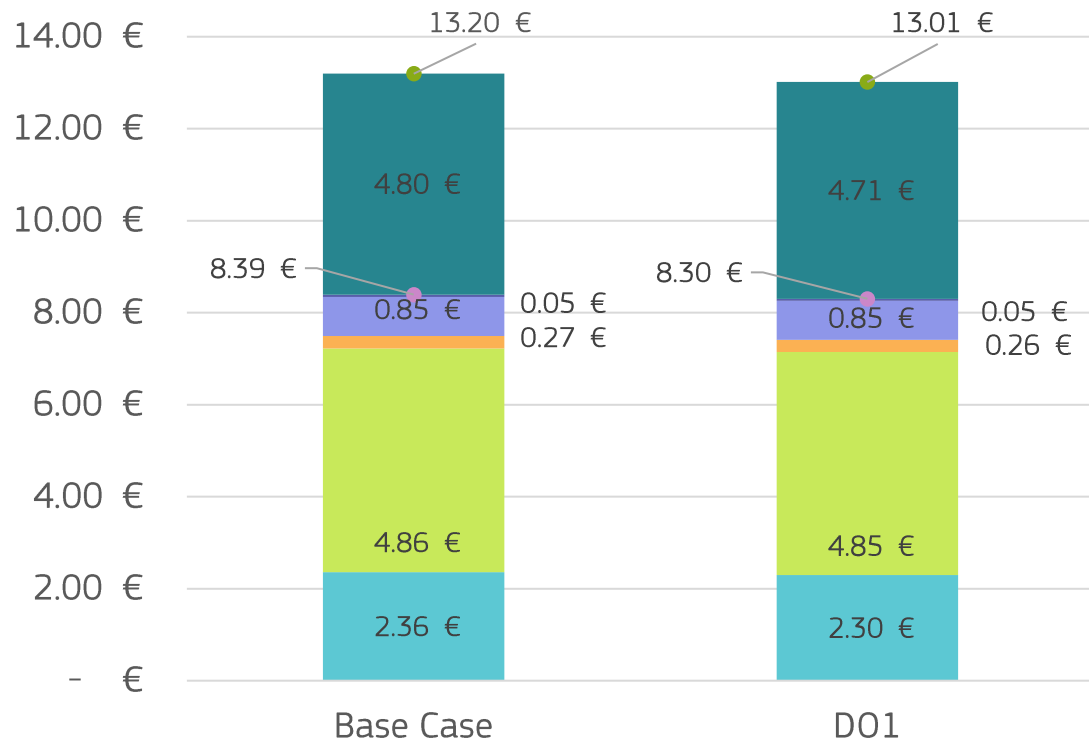
- LCS1 Raw Materials ■ LCS2 Manufacturing ■ LCS3 Distribution
- LCS4 Use ■ LCS5 EoL ■ Env. externalities
- Internal cost ● Societal LCC

Denim

- Spreading the impacts of all lifecycle stages (except the use stage)
- **Reduction** on the **environmental impact**: 2%
- **Decrease** in the **internal costs**: 1.3%
 - Despite the increased water, energy, chemicals, and fibres affecting LCS1 and LCS2
- **Decrease** in **societal costs**: 1.4%



DO1: Product with increased robustness



- LCS1 Raw Materials ■ LCS2 Manufacturing ■ LCS3 Distribution
- LCS4 Use ■ LCS5 EoL ■ Env. externalities
- Internal cost ● Societal LCC

Other woven

- Spreading the impacts of all lifecycle stages (except the use stage)
- **Reduction** on the **environmental impact**: 2%
- **Decrease** in the **internal costs**: 1.1%
 - Despite the increased water, energy, chemicals, and fibres affecting LCS1 and LCS2
- **Decrease** in **societal costs**: 1.4%



Design option 1 on robustness

Q&A

Are there any questions/comments related to:

- Adopted assumptions
- Characteristics of the DO1, which are strictly related to the robustness framework
- Robustness scoring system
- Etc...



Design option 2 on recyclability



DO2: Product with higher **recyclability**

- Increase the availability of secondary materials
- Information requirement based on a **scoring system on recyclability** (0-10 scale)
- **Assumptions**

Share going to recycling: 5% ↑

Costs of testing 0€/unit

Costs of label 0.02€/unit

- Further characteristics:
 - **Recyclability ≠ going to recycling**
 - **Limiting factors other than the design:** technological readiness and capacities, low collection rates



Recyclability score

| Area | Criteria | Points |
|--|--|--------|
| Because of being recyclable | ○ If it contains elastane in proportions lower than 15% (20% for PA6-rich (> 80%) blends) | 1 pt |
| Because of facilitating sorting | ○ If it has same inner and outer composition | +1 pt |
| Because of facilitating pre-treatment | ○ If it is free of printings | +1 pt |
| | ○ If it is free of coatings | +1 pt |
| | ○ If it is free of sequins | +1 pt |
| | ○ If it is free of dyes | +1 pt |
| | ○ If it is mono-material | +1 pt |
| Because of the recycling techniques at operational scale | ○ If it can be mechanically recycled (*) | +1 pt |
| | ○ If it is pure cotton, since it can be chemically recycled | +2 pt |
| | ○ If it is composed of cotton-rich blends (> 60%), since they can be thermo-chemically recovered to cotton | +2 pt |
| | ○ If it is composed of PA6-rich blends (> 80%), since they can be chemically recycled | +2 pt |
| | ○ If it is composed of acrylics or polyester-rich blends (> 80%), since they can be thermo-mechanically recycled | +2 pt |

(*) Note that all garments containing elastane in proportions lower than 15% can be mechanically recycled, thus scoring at least 2 pt.

No **performance requirement** because of the characteristics of elastane



DO2: Product with higher recyclability



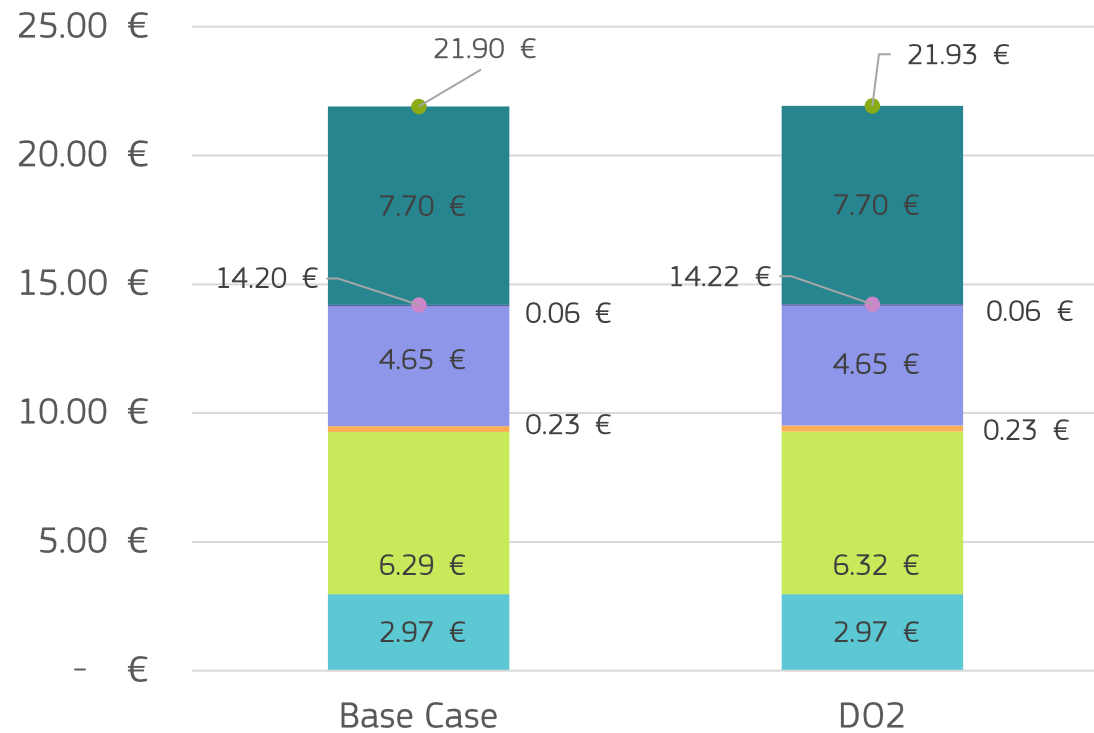
Knitted

- Small **reduction** of the **EoL impact** and increased **availability of secondary materials**
- **Reduction** on the **environmental impact**: 0.1% in the EoL only
- **Increase** in the **internal costs**: 0.4%
 - Higher cost of recycling and labelling
- **Increase** in **societal costs**: 0.3%

■ LCS1 Raw Materials
 ■ LCS2 Manufacturing
 ■ LCS3 Distribution
■ LCS4 Use
 ■ LCS5 EoL
 ■ Env. externalities
● Internal cost
 ● Societal LCC



DO2: Product with higher recyclability



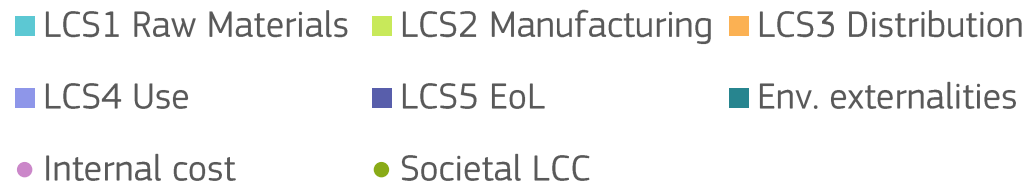
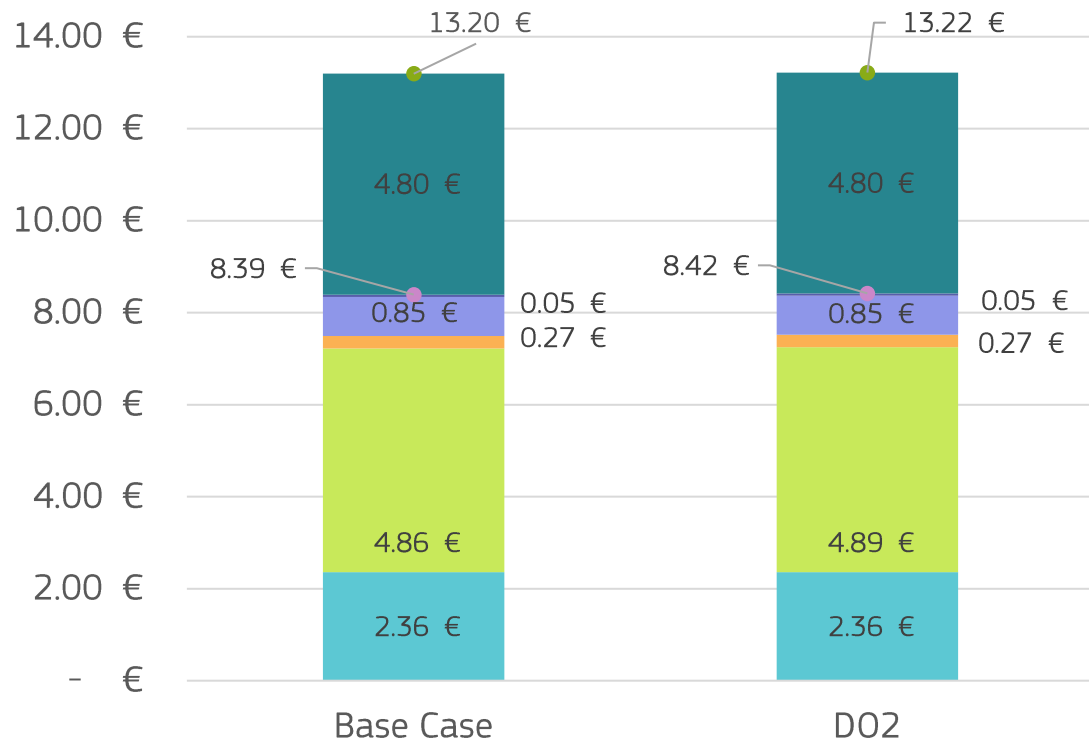
Denim

- Small **reduction** of the **EoL impact** and increased **availability of secondary materials**
- **Reduction** on the **environmental impact**: 0.2% in the EoL only
- **Increase** in the **internal costs**: 0.2%
 - Higher cost of recycling and labelling
- **Increase** in **societal costs**: 0.1%

■ LCS1 Raw Materials
 ■ LCS2 Manufacturing
 ■ LCS3 Distribution
■ LCS4 Use
 ■ LCS5 EoL
 ■ Env. externalities
● Internal cost
 ● Societal LCC



DO2: Product with higher recyclability



Other woven

- Small **reduction** of the **EoL impact** and increased **availability of secondary materials**
- **Reduction** on the **environmental impact**: 0.1% in the EoL only
- **Increase** in the **internal costs**: 0.3%
 - Higher cost of recycling and labelling
- **Increase** in **societal costs**: 0.2%



Design option 2 on recyclability

Q&A

Are there any questions/comments related to:

- Adopted assumptions
- Characteristics of the DO2, which are strictly related to the recyclability framework
- Recyclability scoring system
- Etc...



Design option 3 on recycled content



DO3: Product with higher recycled content

- Decrease the environmental impact of raw materials
- **Information** and **performance** requirements on the **fraction (in weight) of the secondary material used**
- **Information** requirement on the **type of waste** from which the material originates
- **Assumptions**

| Location | Fiber type | Price (€/kg) |
|----------|--------------------|--------------|
| GLO | Recycled PET | 1.840 |
| CN | Recycled PET | 1.068 |
| EU | Recycled PET | 2.430 |
| Non-EU | Polyamide Recycled | 3.375 |
| EU | Polyamide Recycled | 3.375 |
| Non-EU | Cotton Recycled | 2.648 |
| EU | Cotton Recycled | 2.693 |
| Non-EU | Wool Recycled | 3.560 |
| EU | Wool Recycled | 3.560 |

Costs of certification 0.13€/unit

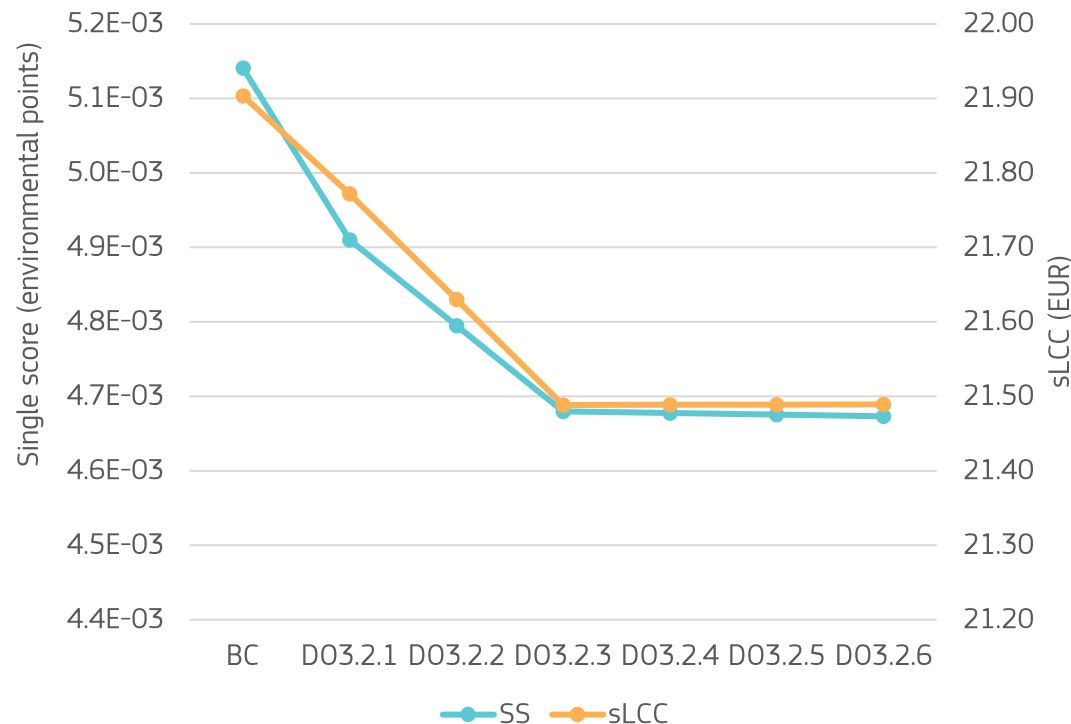
Costs of label 0.02€/unit

- Thresholds defined based on an **optimisation of the single score** and the **theoretical limits according to their availability**



DO3.2: Performance requirement on RC

- Results (denim)**



| | |
|----------------|--|
| BC | 0% recycled content |
| DO3.2.1 | 10% recycled cotton |
| DO3.2.2 | 15% recycled cotton |
| DO3.2.3 | 20% recycled cotton |
| DO3.2.4 | 20% recycled cotton + 5% recycled polyester |
| DO3.2.5 | 20% recycled cotton + 10% recycled polyester |
| DO3.2.6 | 20% recycled cotton + 15% recycled polyester |

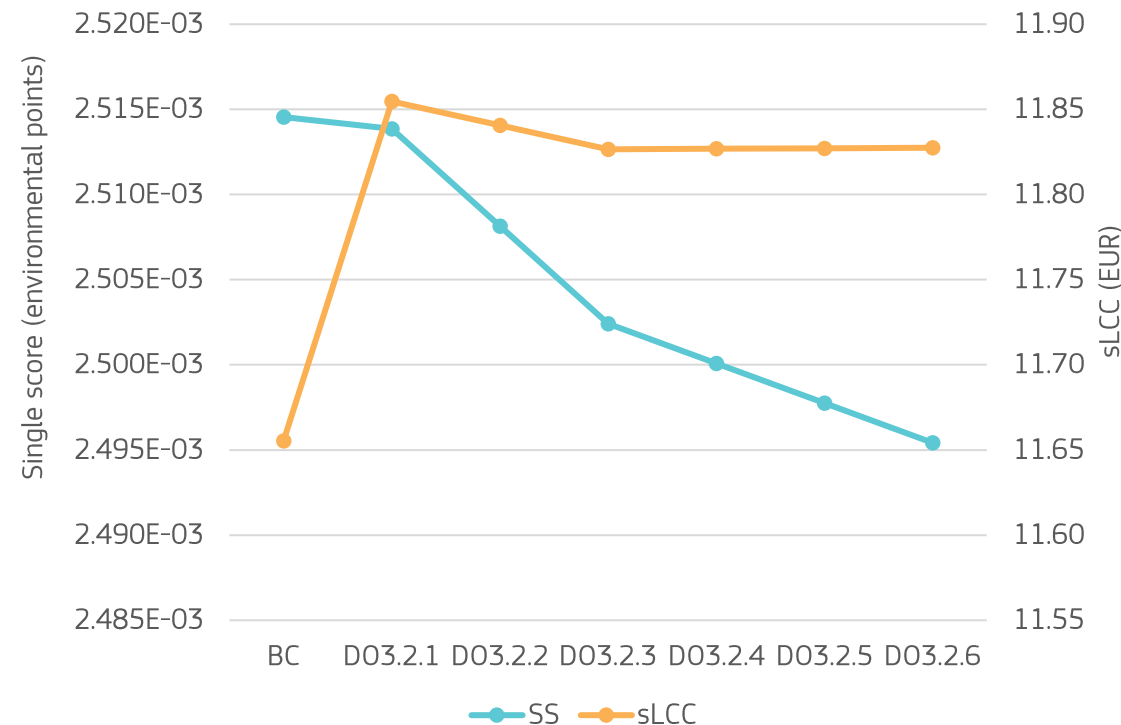
- Technically feasible (Maud Kuppen, 2024)
- 0.32 Mtons of recycled cotton in the world
- EU market is 18% of the global market
- 0.06 Mtons for use in the EU market
- 28% of the cotton used in denim

Up to **8.9%** of **environmental benefit**, with a decrease in the **societal cost** of **1.9%** (sLCC)



DO3.2: Performance requirement on RC

- Results (knitted)**



| | |
|----------------|---|
| BC | 0% recycled content |
| DO3.2.1 | 5% recycled nylon |
| DO3.2.2 | 5% recycled nylon + 5% recycled wool |
| DO3.2.3 | 5% recycled nylon + 10% recycled wool |
| DO3.2.4 | 5% recycled nylon + 10% recycled wool + 5% recycled polyester |
| DO3.2.5 | 5% recycled nylon + 10% recycled wool + 10% recycled polyester |
| DO3.2.6 | 5% recycled nylon + 10% recycled wool + 15% recycled polyester |

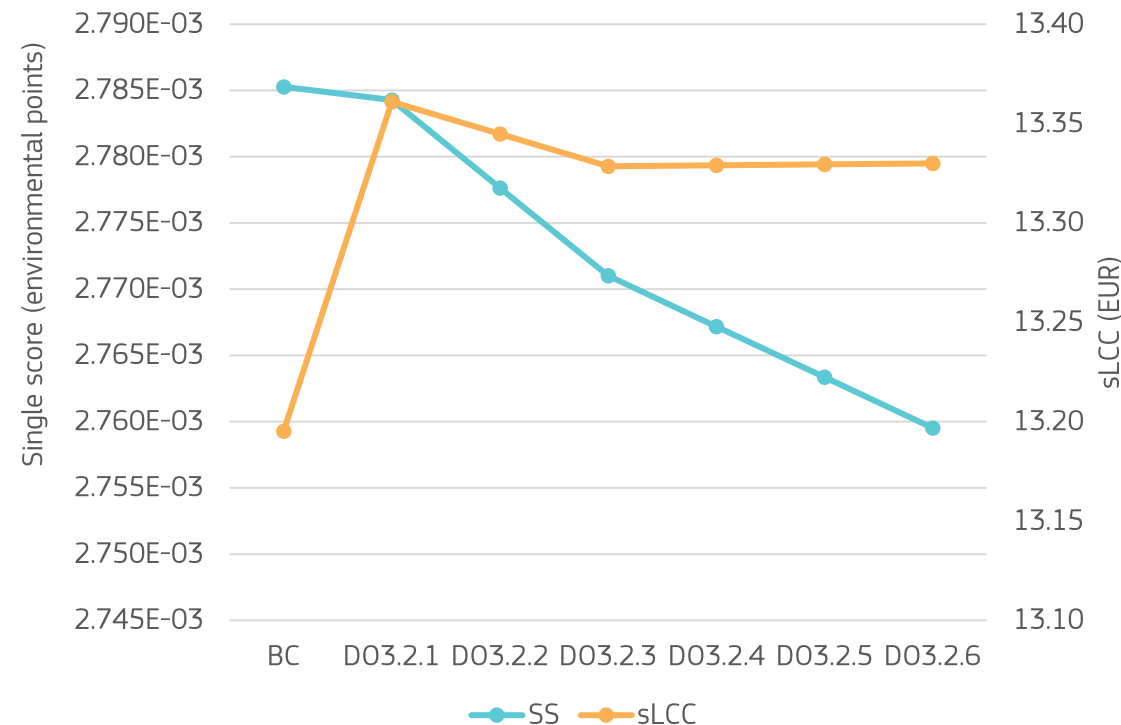
- 0.02 Mtons of recycled nylon for the EU market
9% of the nylon used in EU knitted and woven
- 1.6 Mtons of recycled polyester for the EU market
100% of the polyester used in EU knitted and woven
- 0.2 Mtons of recycled wool for the EU market
17% of the wool used in EU knitted and woven

Up to **0.8%** of **environmental benefit**, with an increase in **costs** of **1.5%** (sLCC)



DO3.2: Performance requirement on RC

• Results (other woven)



| | |
|----------------|---|
| BC | 0% recycled content |
| DO3.2.1 | 5% recycled nylon |
| DO3.2.2 | 5% recycled nylon + 5% recycled wool |
| DO3.2.3 | 5% recycled nylon + 10% recycled wool |
| DO3.2.4 | 5% recycled nylon + 10% recycled wool + 5% recycled polyester |
| DO3.2.5 | 5% recycled nylon + 10% recycled wool + 10% recycled polyester |
| DO3.2.6 | 5% recycled nylon + 10% recycled wool + 15% recycled polyester |

- 0.02 Mtons of recycled nylon for the EU market
9% of the nylon used in EU knitted and woven
- 1.6 Mtons of recycled polyester for the EU market
100% of the polyester used in EU knitted and woven
- 0.2 Mtons of recycled wool for the EU market
17% of the wool used in EU knitted and woven

Up to **0.9%** of **environmental benefit**, with an increase in **costs** of **1.0%** (sLCC)



DO3: Product with higher recycled content

- Other assumptions

Denim

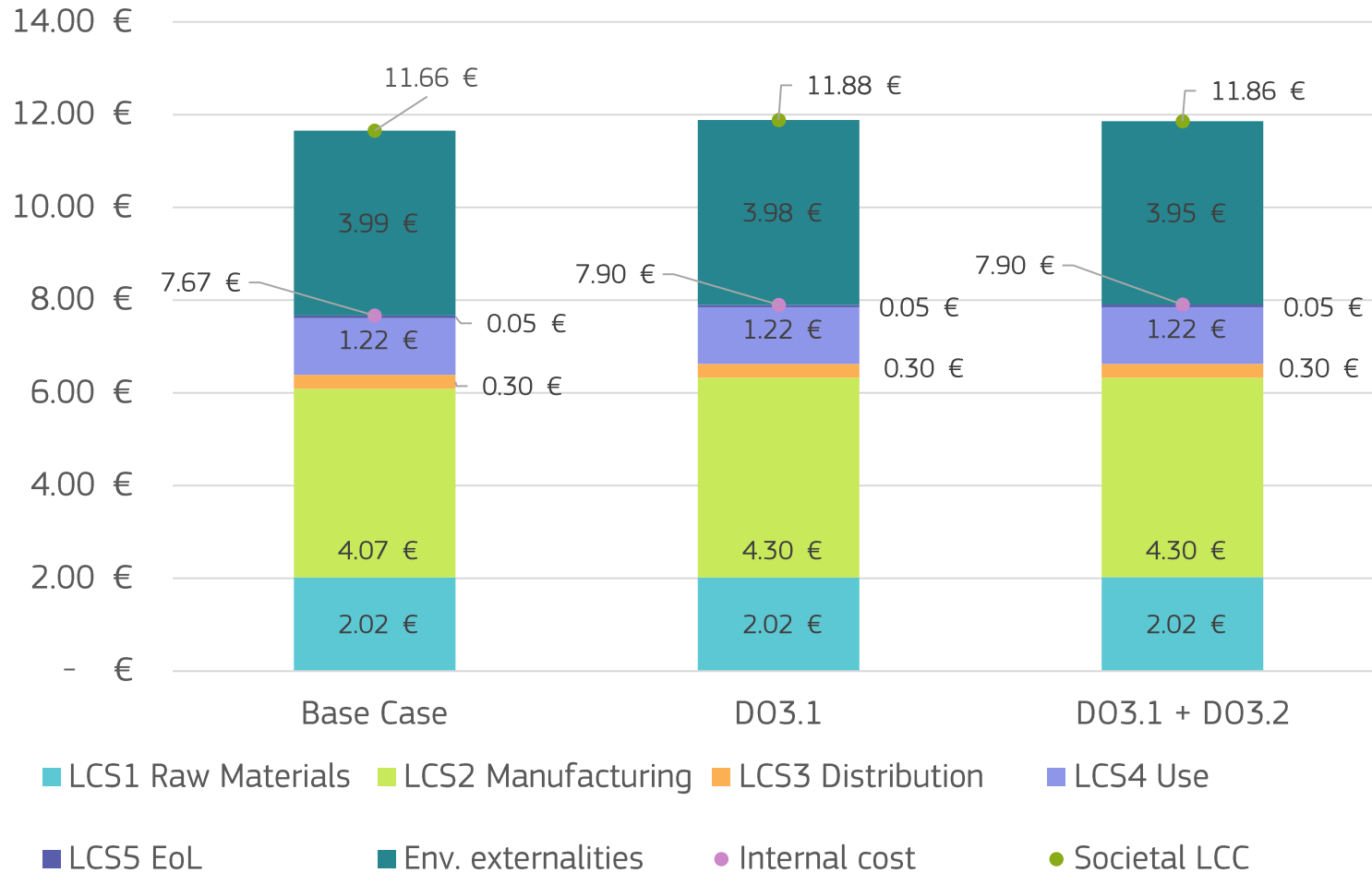
| | | | | |
|--------------------|--------------------|------------------------|----------------------|-------------------|
| Info only | Recycled nylon: 0% | Recycled polyester: 2% | Recycled cotton: 5% | Recycled wool: 0% |
| Perf only | Recycled nylon: 0% | Recycled polyester: 0% | Recycled cotton: 20% | Recycled wool: 0% |
| Info + Perf | Recycled nylon: 0% | Recycled polyester: 2% | Recycled cotton: 21% | Recycled wool: 0% |

Knitted and other woven

| | | | | |
|--------------------|-----------------------|----------------------------|---------------------|----------------------|
| Info only | Recycled nylon: 0.5% | Recycled polyester: 2% | Recycled cotton: 0% | Recycled wool: 0.5% |
| Perf only | Recycled nylon: 5% | Recycled polyester: 15% | Recycled cotton: 0% | Recycled wool: 10% |
| Info + Perf | Recycled nylon: 5.25% | Recycled polyester: 15.75% | Recycled cotton: 0% | Recycled wool: 10.5% |



DO3: Product with higher recycled content

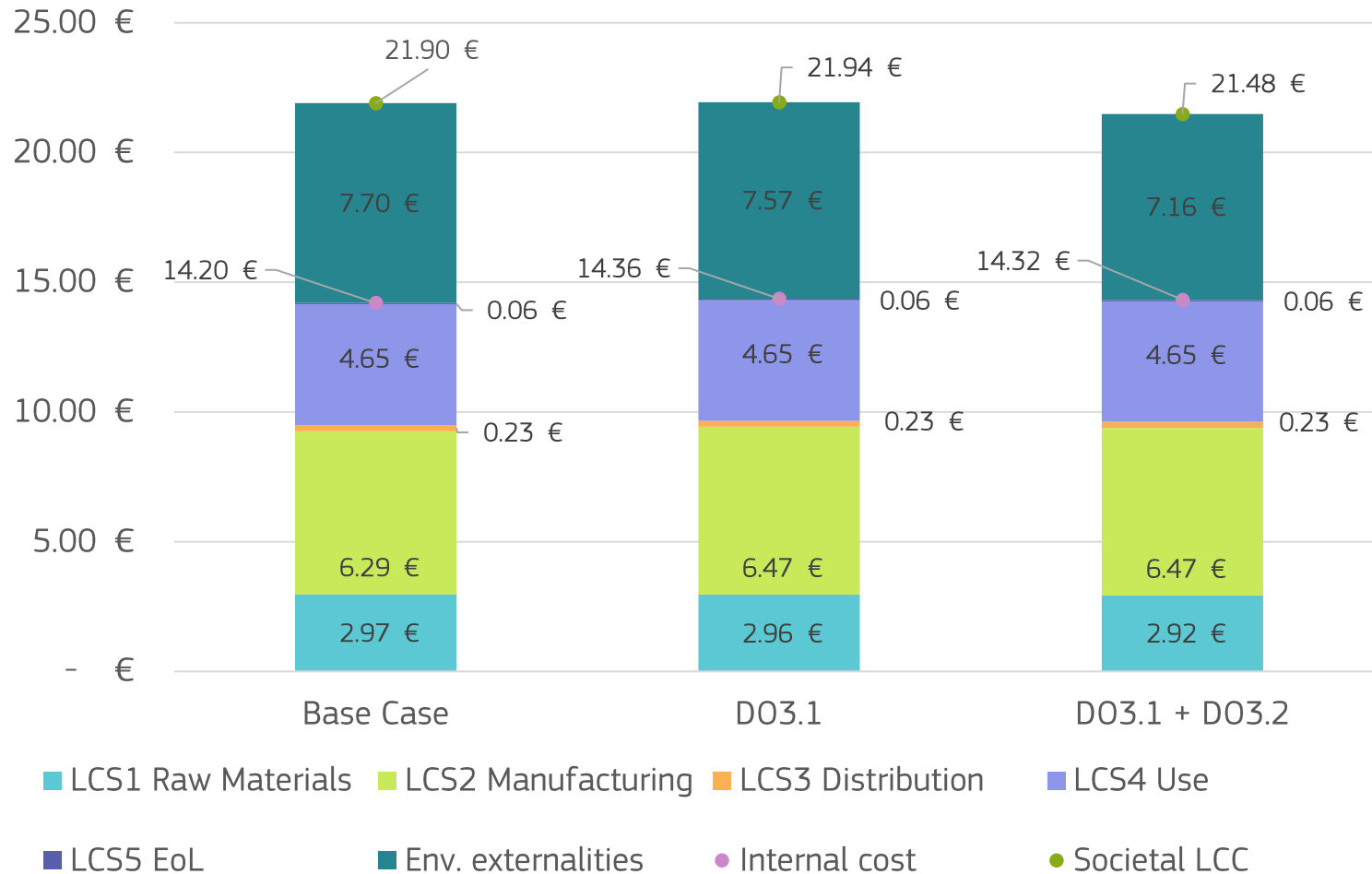


Knitted

- Decrease of the impact of the raw materials
- Lower environmental impacts and costs when combining DOs
- **Reduction** on the **environmental impact**: 0.8%
- **Increase** in the **internal costs**: 3.1%
 - Generally higher cost of secondary materials, certification and labelling
- **Increase** in **societal costs**: 1.7%



DO3: Product with higher recycled content



Denim

- Decrease of the impact of the raw materials
- Lower environmental impacts and costs when combining DOs
- **Reduction** on the **environmental impact**: 9.4%
- **Increase** in the **internal costs**: 0.9%
 - Generally higher cost of secondary materials (except for cotton), certification and labelling
- **Decrease** in **societal costs**: 1.9%



DO3: Product with higher recycled content



Other woven

- Decrease of the impact of the raw materials
- Lower environmental impacts and costs when combining DOs
- **Reduction** on the **environmental impact**: 1.0%
- **Increase** in the **internal costs**: 2.4%
 - Generally higher cost of secondary materials, certification and labelling
- **Increase** in **societal costs**: 1.2%

■ LCS1 Raw Materials
 ■ LCS2 Manufacturing
 ■ LCS3 Distribution
 ■ LCS4 Use
■ LCS5 EoL
 ■ Env. externalities
 ● Internal cost
 ● Societal LCC



Design option 3 on recycled content

Q&A

Are there any questions/comments related to:

- Adopted assumptions
- Characteristics of the DO3, which are strictly related to the recycled content framework
- Thresholds
- Etc...



Break 1





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15 January 2026

Break until 11:25

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Design option 4 on environmental and carbon footprint



DO4: Product with decreased environmental or carbon footprint

- Decrease the environmental impact of manufacturing
- Information requirement on the **footprint during manufacturing**

Environmental footprint (EF)

Single score

Broader scope, greater effect

Carbon footprint (CF)

Most impactful impact category

Less effort for reporting and verification

- Based on the **PEFCR**: default values, datasets
- Label if '**excellence**': $EF / CF < \text{benchmark set by the PEFCR for the representative product in that product category (in \%)}$
- **Exclusion of the raw materials** because of the inequivalent choice of system boundaries used for the datasets available for the several types of fibres



DO4: Product with decreased environmental or carbon footprint

- **Assumptions**

Environmental or carbon footprint of the manufacturing : 3% ↓

Administrative costs 0.035€/unit (knitted) 0.07€/unit (denim) 0.14€/unit (other woven)

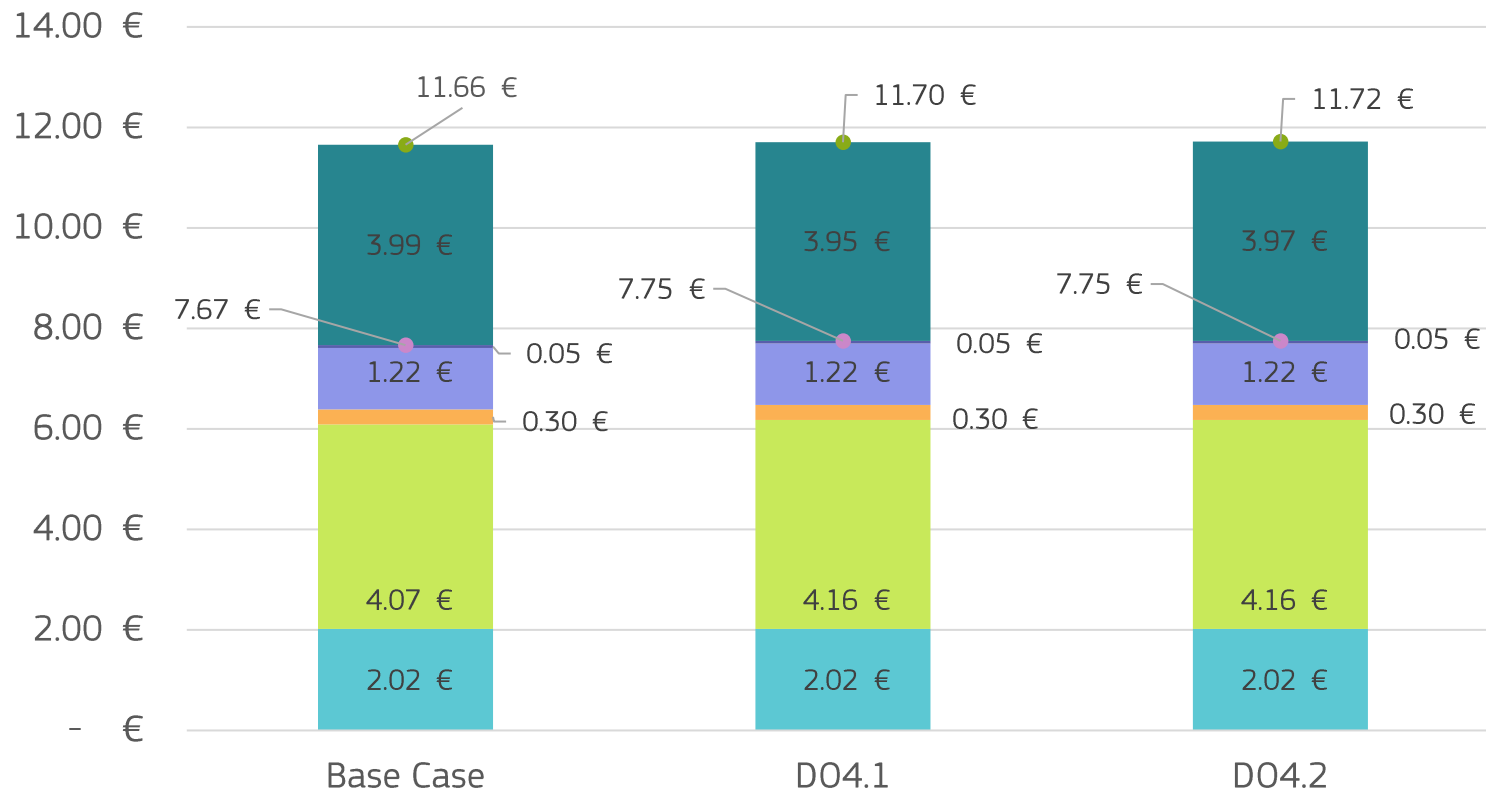
Costs of label 0.02€/unit

- Further characteristics:

- **Voluntary** → reduced effect and reduced average costs
- **Administrative costs** include one-off costs (company-specific data and consultancy fees) and verification costs
- Additional costs due to **more costly technologies or techniques** for achieving a better performance are not considered because of lack of sufficient data



DO4: Product with decreased environmental or carbon footprint



Knitted

- Higher reduction of the environmental impacts for DO4.1 (EF) affecting all ICs
- **Reduction** on the **environmental impact**: 0.7% (EF), 0.2% (CF)
- **Increase** in the **internal costs**: 1.1% (EF), 1.1% (CF)
- **Increase** in **societal costs**: 0.4% (EF), 0.6% (CF)

■ LCS1 Raw Materials
 ■ LCS2 Manufacturing
 ■ LCS3 Distribution
 ■ LCS4 Use
■ LCS5 EoL
 ■ Env. externalities
 ● Internal cost
 ● Societal LCC



DO4: Product with decreased environmental or carbon footprint



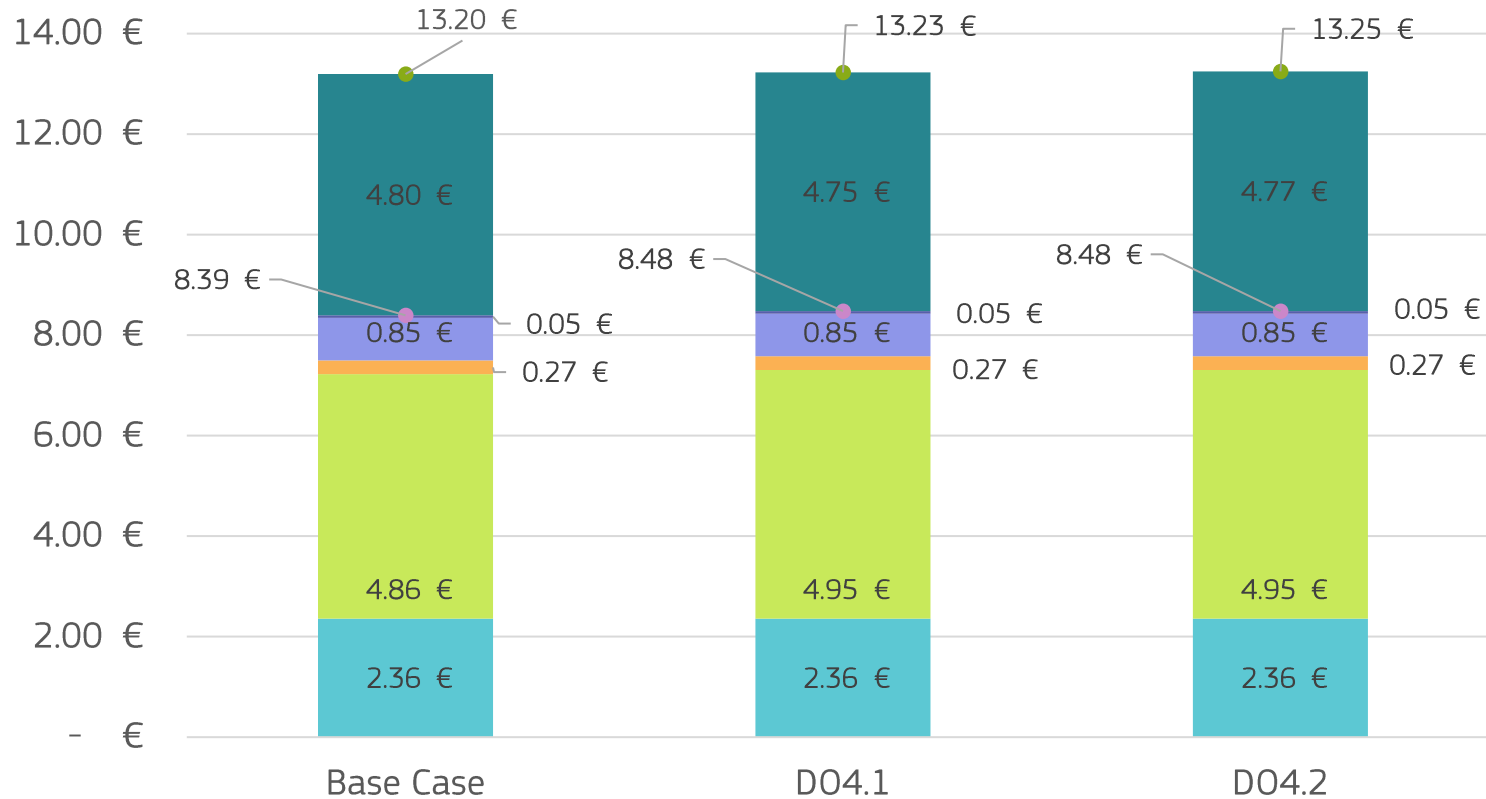
Denim

- Higher reduction of the environmental impacts for DO4.1 (EF) affecting all ICs
- **Reduction** on the **environmental impact**: 0.6% (EF), 0.2% (CF)
- **Increase** in the **internal costs**: 0.8% (EF), 0.8% (CF)
- **Increase** in **societal costs**: 0.1% (EF), 0.3% (CF)

■ LCS1 Raw Materials
 ■ LCS2 Manufacturing
 ■ LCS3 Distribution
 ■ LCS4 Use
■ LCS5 EoL
 ■ Env. externalities
 ● Internal cost
 ● Societal LCC



DO4: Product with decreased environmental or carbon footprint



Other woven

- Higher reduction of the environmental impacts for DO4.1 (EF) affecting all ICs
- **Reduction** on the **environmental impact**: 0.9% (EF), 0.2% (CF)
- **Increase** in the **internal costs**: 1.0% (EF), 1.0% (CF)
- **Increase** in **societal costs**: 0.2% (EF), 0.4% (CF)

■ LCS1 Raw Materials
 ■ LCS2 Manufacturing
 ■ LCS3 Distribution
 ■ LCS4 Use
■ LCS5 EoL
 ■ Env. externalities
 ● Internal cost
 ● Societal LCC



Design option 4 on environmental and carbon footprint - Q&A

Are there any questions/comments related to:

- Adopted assumptions
- Characteristics of the DO4
- Potential information requirements proposed
- Etc...



Combination of design options

- Definition of paths
- Results of paths



Definition of paths

Path: cluster of design options that go in synergy

Path 1

Robustness score,
recyclability score,
recycled content,
env. footprint

Path 2

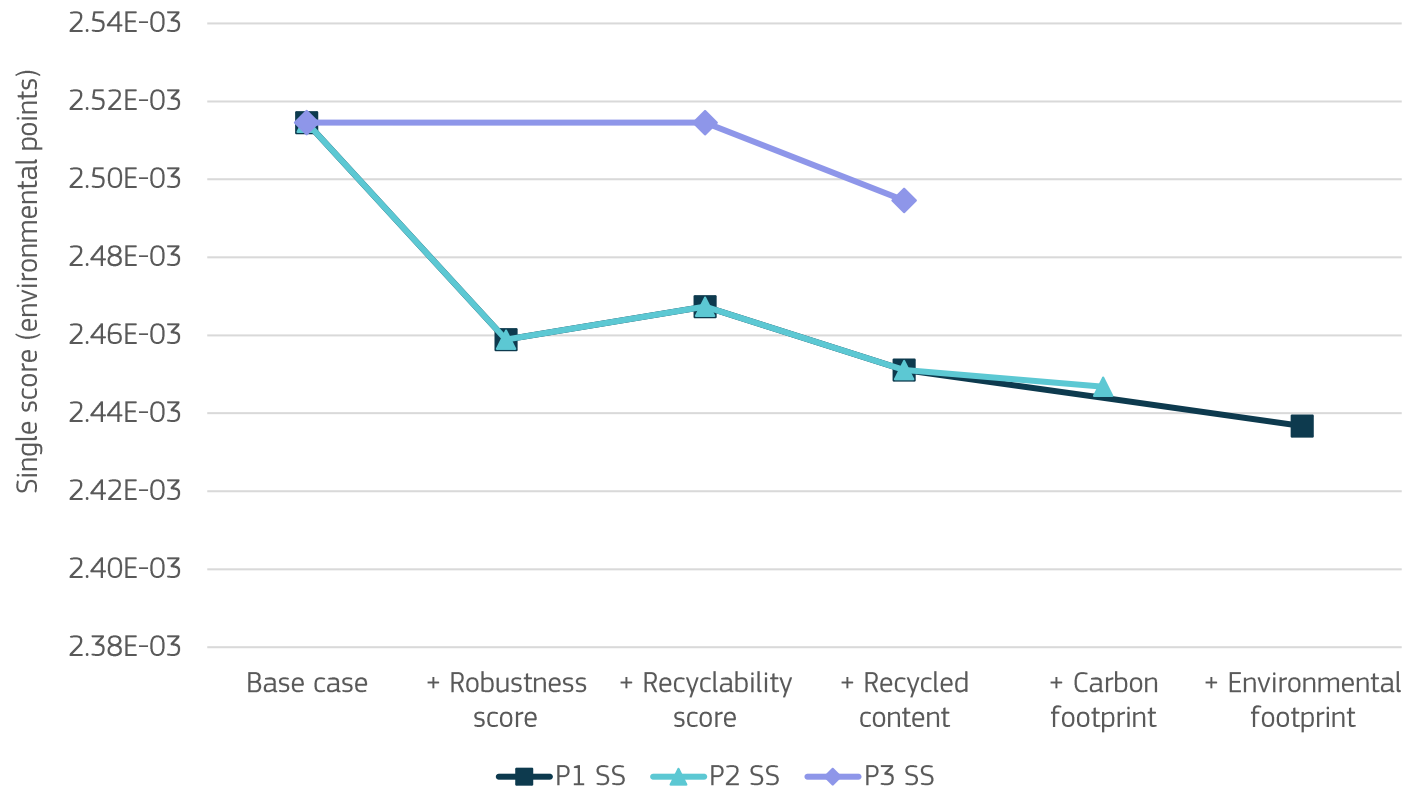
Robustness score,
recyclability score,
recycled content,
carbon footprint

Path 3

Recyclability score,
recycled content

- Optimising product aspects simultaneously might require design configurations that may not be compatible
- Most of the proposed measures are limited to **information requirements** meaning **no inherent contradiction** between the potential ecodesign requirements.
 - The information could be contradictory, the same product could score high in one of the product aspects and low in the rest → **reduced effect** of a label
- DOs are assessed in a **cumulative way** to ensure that the environmental benefits of their combination are **greater** than those achieved by applying a single option alone and that the costs are not disproportionate.

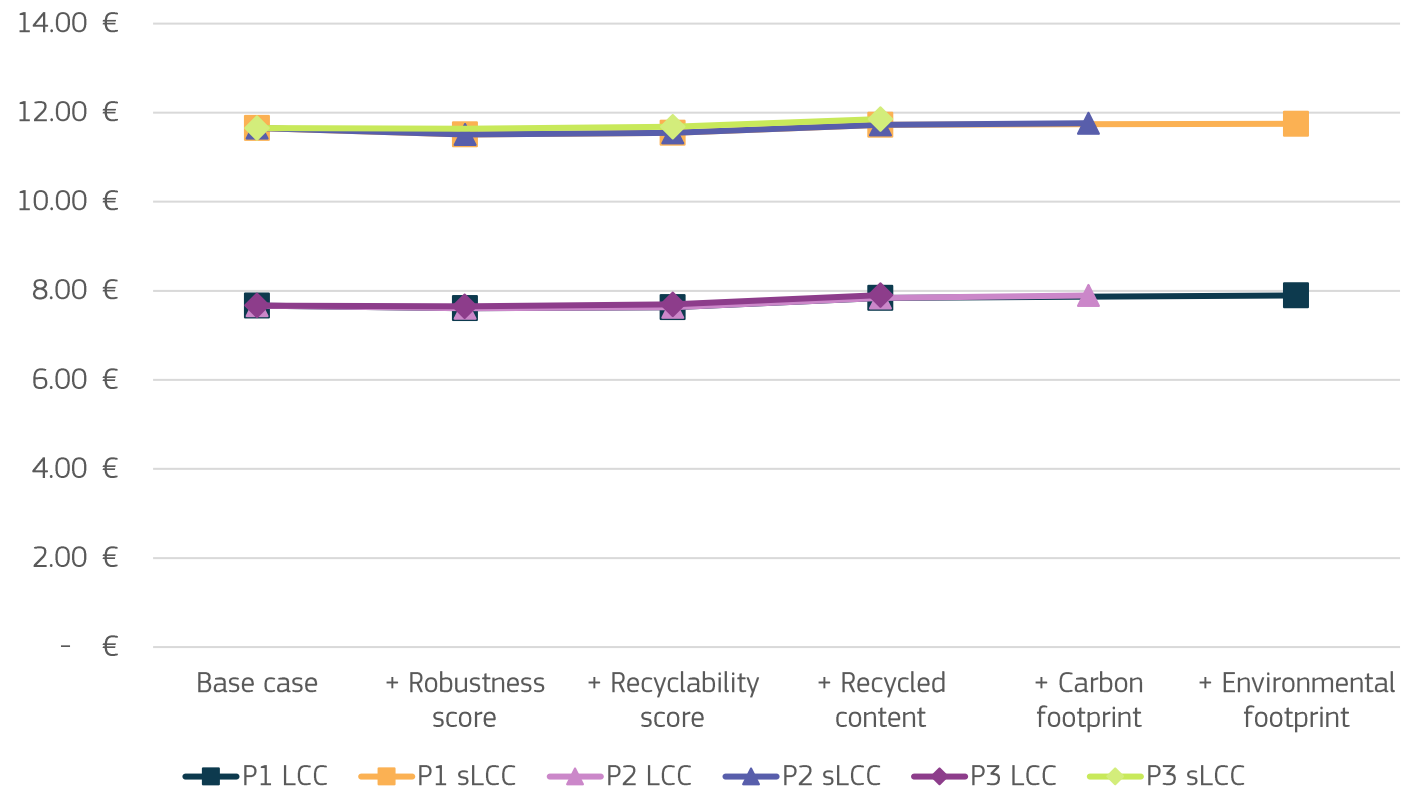
Results of paths



Knitted

- Combining DOs generally improves the environmental profile of the product
- **Path 1:** -3.1%
- **Path 2:** -2.7%
- **Path 3:** -0.8%

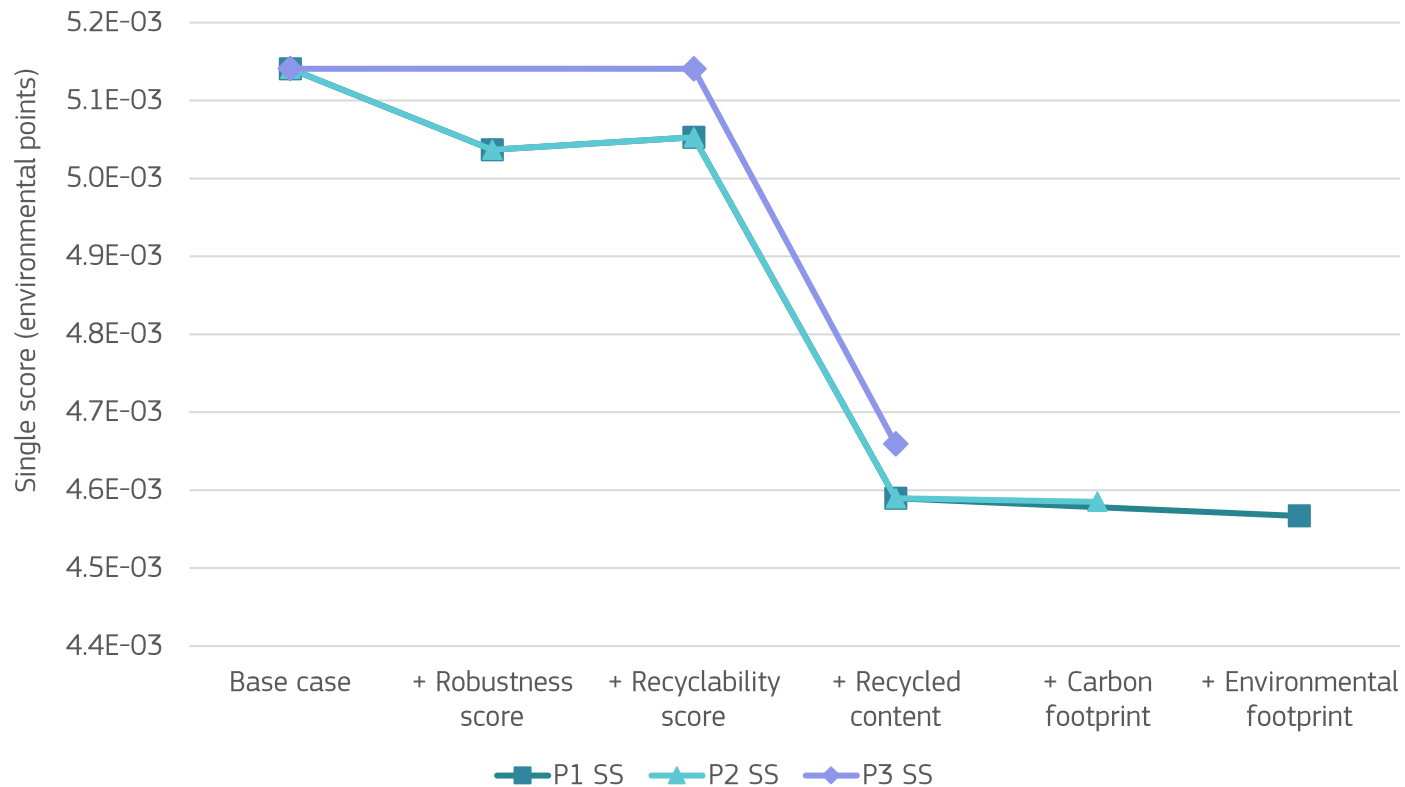
Results of paths



Knitted

| | LCA | LCC | sLCC |
|--------|--------|------|------|
| Path 1 | - 3.1% | 3.0% | 0.8% |
| Path 2 | - 2.7% | 3.0% | 0.9% |
| Path 3 | - 0.8% | 3.1% | 1.7% |

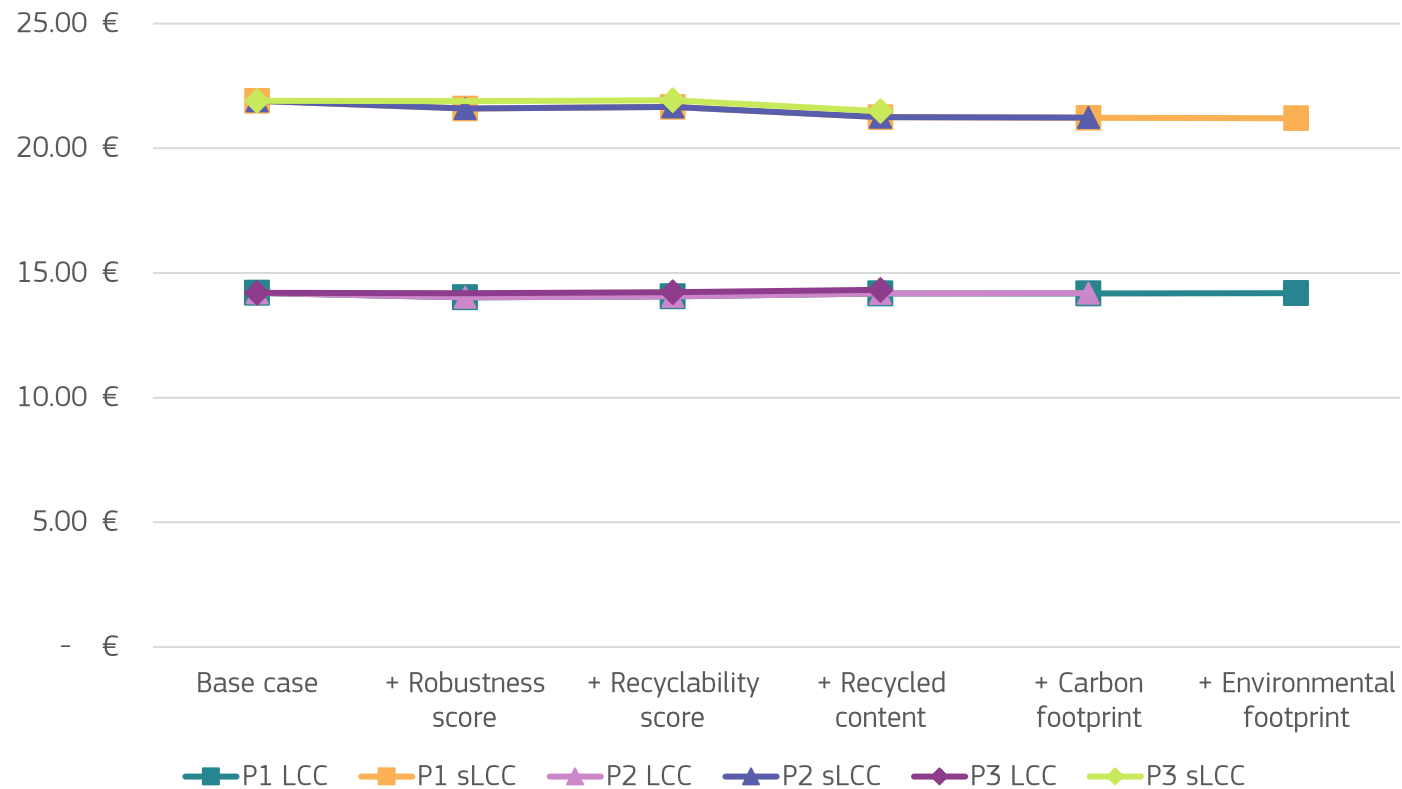
Results of paths



Denim

- Combining DOs generally improves the environmental profile of the product
- **Path 1:** -11.2%
- **Path 2:** -10.8%
- **Path 3:** -9.3%

Results of paths

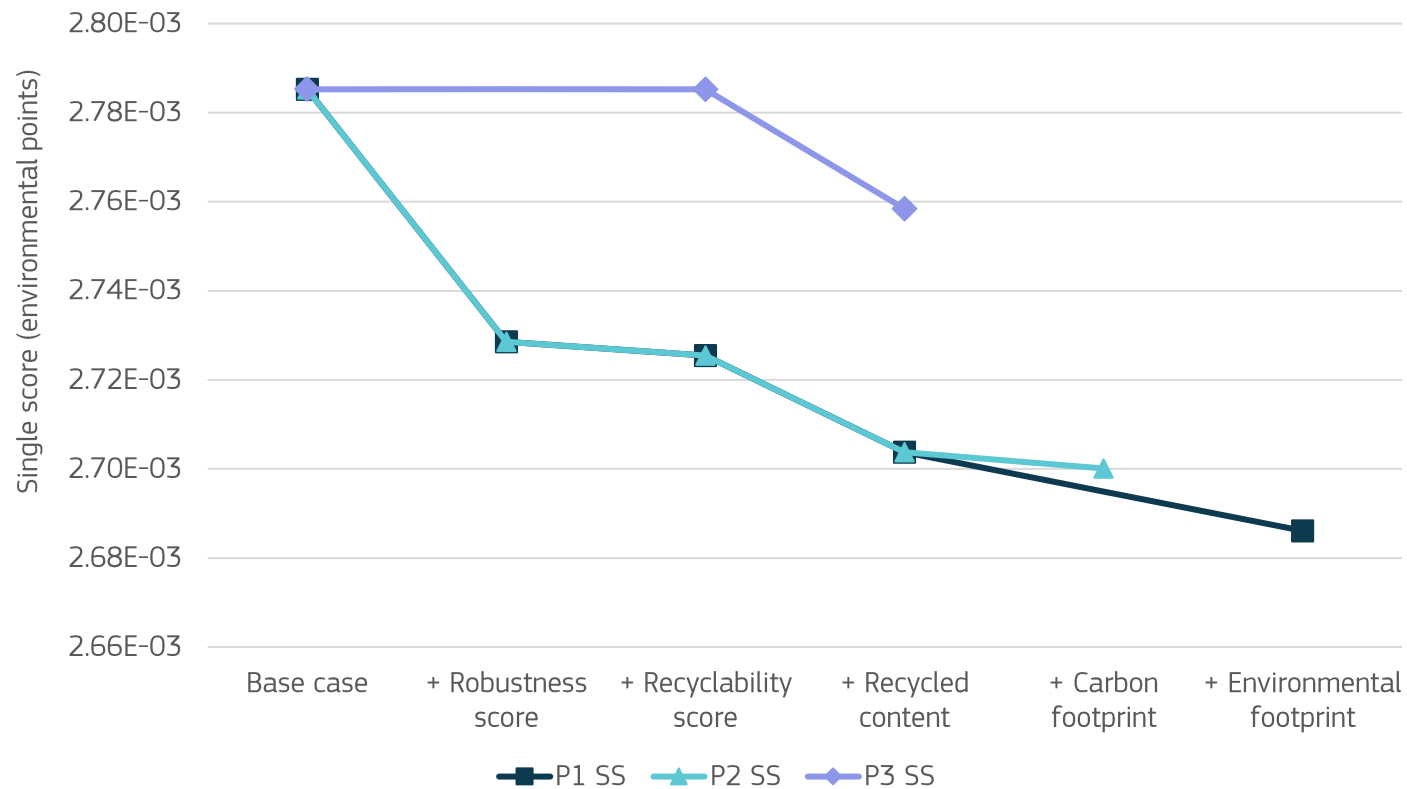


Denim

| | LCA | LCC | sLCC |
|--------|---------|------|--------|
| Path 1 | - 11.2% | 0.1% | - 3.2% |
| Path 2 | - 10.8% | 0.1% | - 3.1% |
| Path 3 | - 9.3% | 0.9% | - 1.9% |



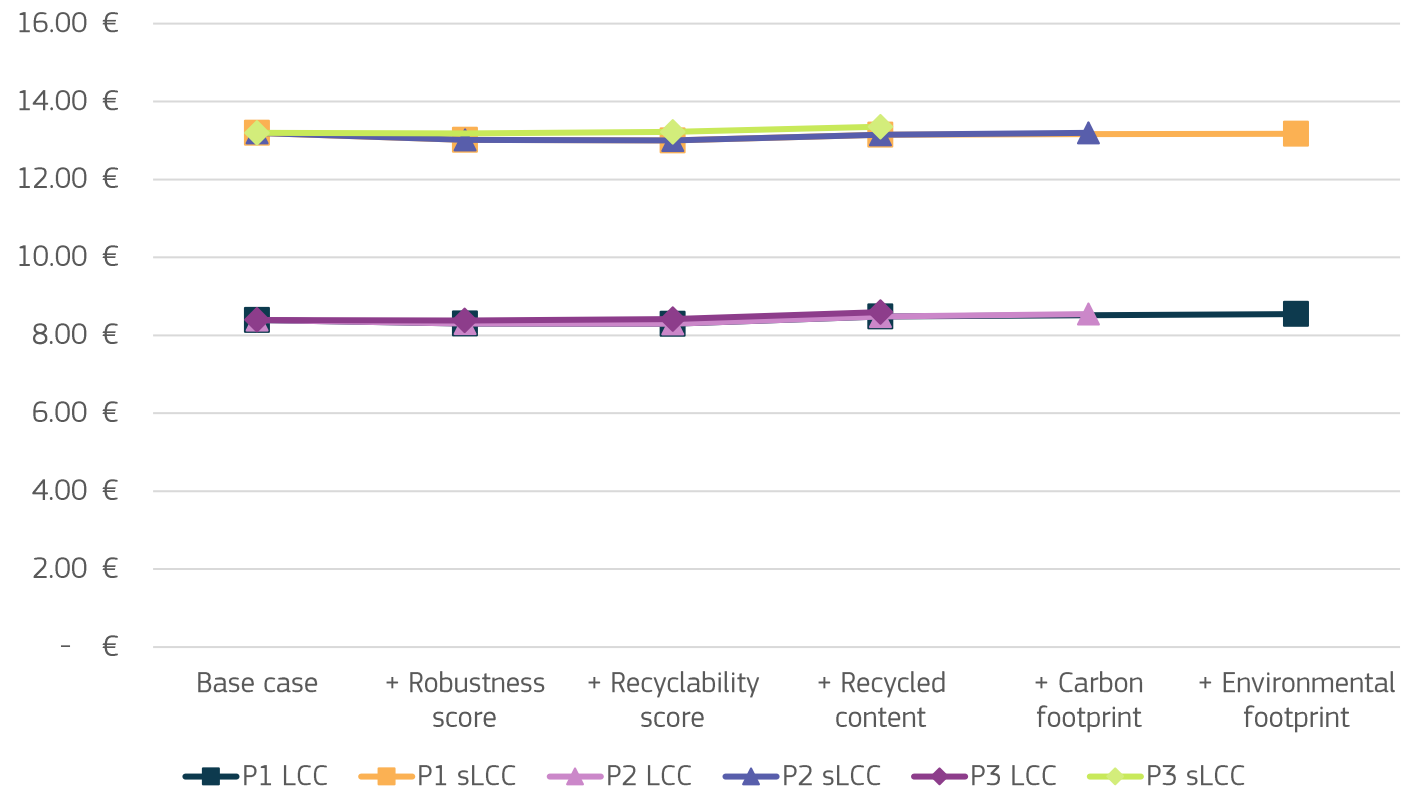
Results of paths



Other woven

- Combining DOs consistently improves the environmental profile of the product
- **Path 1:** -3.6%
- **Path 2:** -3.1%
- **Path 3:** -1.0%

Results of paths

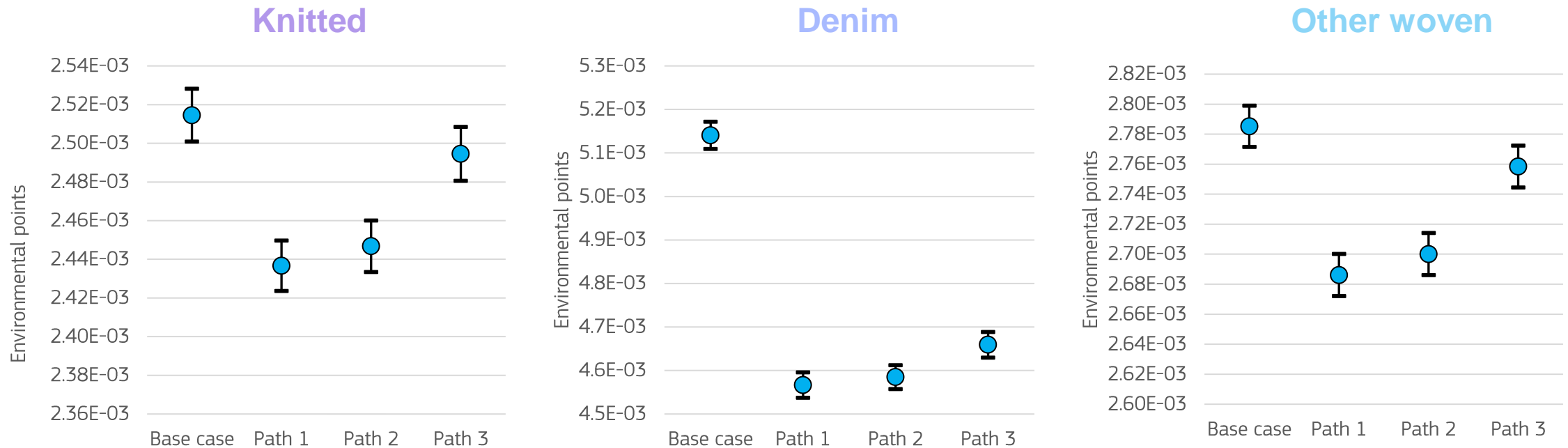


Other woven

| | LCA | LCC | sLCC |
|--------|--------|------|--------|
| Path 1 | - 3.6% | 1.8% | - 0.2% |
| Path 2 | - 3.1% | 1.8% | - |
| Path 3 | - 1.0% | 2.4% | 1.2% |



Propagation of uncertainties



- **Paths 1 and 2** show **improvements** of the environmental impacts of the products even once the uncertainties are considered, with a 95% confidence.
- For **Path 3**, the results after the propagation of uncertainties **overlap** with those of the base cases for **knitted and other woven products**.

Main conclusions

- The results are **highly dependent on the assumptions** underpinning the expected impact of each of the potential ecodesign requirements
- **Combining design options** into paths yields greater environmental benefits than analysing them individually.
- **Path 1** is the one that achieves the greatest environmental impact reductions followed by Paths 2 and 3.
- **Reduction of the societal costs** in all Paths in the case of denim products, which experienced minimal increases in internal costs.
- For other woven products, the internal costs are **only totally offset** in the case of the first path.
- For the rest of the configurations and for the knitted products, the **societal costs increase** by 1 - 2%.
- The **internal costs of implementing Path 3** are lower than those of Paths 1 and 2 only if looking at the results per unit but not when looking at the annual ones because of the shorter lifetime that does not dilute the additional costs. Moreover, it shows more modest environmental improvements.



Combination of design options - Q&A

Are there any questions/comments related to:

- Definition of paths
- Path 1: Robustness score + recyclability score + recycled content + env. footprint
- Path 2: Robustness score + recyclability score + recycled content + carbon footprint
- Path 3: Recyclability score + recycled content
- Etc...



Break 2





Preparatory Study on Textile Products

workshop with stakeholders
15 January 2026

Break until 12:45

ETIQUETTE FOR VIRTUAL MEETING PARTICIPANTS

- ❖ Please indicate your **NAME, SURNAME** and **ORGANISATION** on Webex
- ❖ **MUTE YOUR MIC AND SWITCH OFF** your **CAMERA** (unless you have the floor)
- ❖ **POST** your **QUESTIONS** in the **WEBEX CHAT** Box. You will be **INVITED** to take the floor to formulate your question **ORALLY**.
- ❖ Please clearly state your name and affiliation the first time you are given the floor.
- ❖ Please note that the (Webex) meeting will be **RECORDED** to help prepare the internal meeting minutes, but will not be live-streamed or made publicly available for replay. This implies that by participating to the meeting, you grant your permission for the JRC to record the meeting.

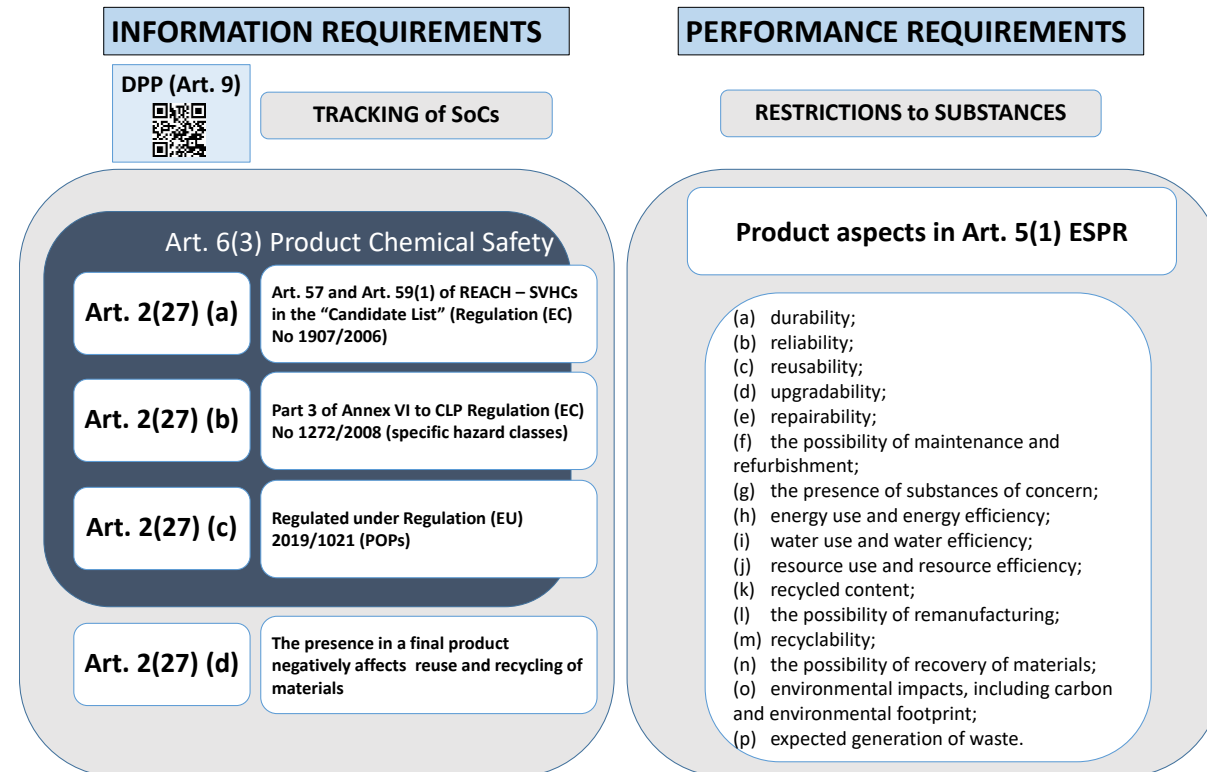
Substances of concern



Substances and SoCs in ESPR

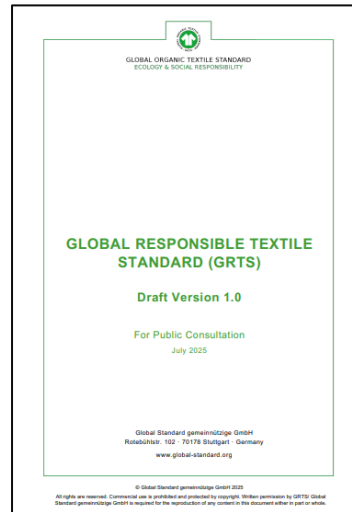
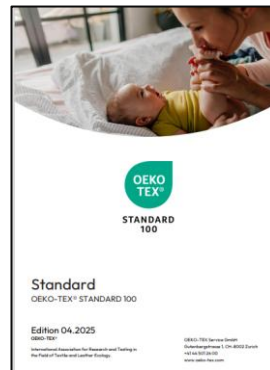
ESPR: (1) obligation to set information requirements on Substances of Concern and (2) possibility to include performance requirements on substances

- (1) SoCs → Article 2(27) → information requirements
- (2) Substances → related to Article 5(1) product aspects → performance requirements

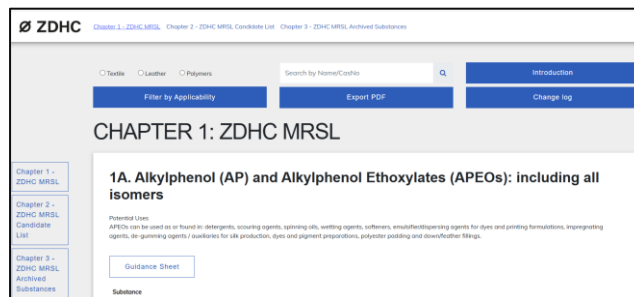


Substances in textiles

- The textile industry uses a very large number of chemical substances
- Chemical substances depend on the type of textile and the process of manufacturing for each type which may vary from one to another
- Different schemes providing lists of substances (restricted substance lists - RSLs):
 - AFIRM, ZDHC, OEKO-TEX® standards, GOTS, Bluesign, Ecolabels



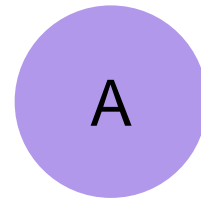
Nordic Ecolabelling 



Substances in textile apparel PS – 3rd milestone

3-step method:

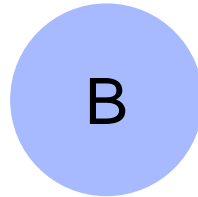
- Followed the ESPR method for substances (published November 2025)



Preliminary steps

Inventory of chemical substances

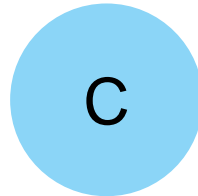
Indicative inventory is reported in Table 227 in Annex 13.13



Method for developing information requirements on substances of concern

Identification SoCs (a), (b), (c), (d)

Information requirements – section 12.3.2



Method for developing performance requirements on substances

Identification performance requirements /
Analysis of Alternatives

Performance requirements – section 12.3.15



Information requirements

- Indication of **SoCs (a), (b) and (c)** are provided in **Tables 101, 102 and 103** [not exhaustive lists]

- **SoCs (d)** → could be due to :

- Technical constraints → no conclusive examples have been found
- Existing regulatory limitations and customer-driven limitations → proposed in **Table 104**

6586 **Table 101.** Identification of Substances of Concern (a) for textile apparel products according to the ESPR Article 2(27).

| Substances | CAS | Reason for inclusion SVHC | Notes |
|-----------------------------------|----------|---------------------------|-------------------------------------|
| Octamethylcyclotetrasiloxane (D4) | 556-67-7 | | May be present in silicone pads, as |

6612 **Table 102.** Identification of Substances of Concern (b) for textile apparel products according to the ESPR Article 2(27).

| Substances | CAS | Hazard class for SoC (b) | Notes |
|--|------------|--------------------------|---|
| Acrylic acid | 79-10-7 | Skin Sens. 1 | Used in finishing processes such printing with dyes. Indicated as an environmental hotspot in the LCA (see section on performance requirements). |
| (benzothiazol-2-ylthio)methyl thiocyanate; | 31564-17-0 | Skin Sens. 1 Acute | Isocyanate |

6630 **Table 103.** Identification of Substances of Concern (c) relevant to textile apparel products according to the ESPR Article 2(27).

| Substances | CAS | POPs Reg. Annex | Notes |
|-------------------------------------|----------|------------------------------|-----------------------|
| Pentadecafluorooctanoic Acid (PFOA) | 335-67-1 | Annex I, part A and Annex IV | Also SoC (a) and (b). |

6811 **Table 104.** Identification of possible SoCs (d) due to existing regulatory limitations in textile apparel products.

| Substance | CAS no. | Existing regulatory limitation/ notes | Other initiatives/lists |
|--|---|---|--|
| Tris (2,3 dibromopropyl) phosphate (TRIS) | 126-72-7 | Entry 4 of Annex XVII to REACH (it is a brominated and organophosphorus substance/ flame retardant) | Reporting limit: 5 ppm Limit in component material in final product: 10 ppm (AFIRM) |
| Tris(aziridinyl)phosphin oxide (TEPA) | 545-55-1 | Entry 7 of Annex XVII to REACH (it is a brominated and organophosphorus substance/ flame retardant) | Reporting limit: 5 ppm Limit in component material in final product: 10 ppm (AFIRM) |
| Polybrominatedbiphenyls; Polybrominatedbiphenyls (PBB) | 59536-65-1 | Entry 8 of Annex XVII to REACH (it is a brominated and organophosphorus substance/ flame retardant) | Reporting limit: 5 ppm Limit in component material in final product: 10 ppm (AFIRM) |
| Mercury compounds | 7439-97-6 | Entry 18 of Annex XVII to REACH | Reporting limit: Extractable: 0.02 ppm; Total: 0.1 ppm Limit in component material in final product: Extractable: 0.02 ppm; Total: 0.5 ppm (AFIRM) |
| Organostannic compounds (Dioctyltin (DOT)) | Various | Entry 20 of Annex XVII to REACH (it is an organotin compound) | Reporting limit: 0.1 ppm; Limit in component material in final product: 1 ppm (AFIRM) |
| Azocolourants and Azodyes Aromatic amines: biphenyl-4-ylamine 4-aminobiphenyl xenyamine benzidine 4-chloro-o-toluidine 2-naphthylamine o-aminoazotoluene 4-amino-2',3'-dimethylazobenzene 4-o-tolylazo-o-toluidine 5-nitro-o-toluidine 4-chloroaniline 4-methoxy-m-phenylenediamine 4,4'-methylenedianiline 4,4'-diaminodiphenylmethane 3,3'-dichlorobenzidine 3,3'-dichlorobiphenyl-4,4'-ylenediamine 3,3'-dimethoxybenzidine o-dianisidine 3,3'-dimethylbenzidine 4,4'-bi-o-toluidine | Aromatic amines: 92-67-1 92-67-5 95-69-2 91-59-8 97-56-3 99-55-8 106-47-8 615-05-4 101-77-9 91-94-1 119-90-4 119-93-7 | Entry 43 of Annex XVII to REACH | Azo-amines and arylamide salts: Reporting limit: 5 ppm each ; Limit in component material in final product: 20 ppm each (AFIRM). Azodyes: Reporting limit: 15 ppm each ; Limit in component material in final product: 30 ppm each (AFIRM). |

ances are and phorus used as flame These examples ardent used across the footwear ch is not be a complete SoC (a). and (b).



Information requirements - thresholds

| Type of SoC | Threshold | Calculation of threshold concentration - TBD |
|--|--|---|
| (a) and (c) | 0.1% w/w | <p>Option 1) Calculation w/w made based on the weight of the final garment. This means that the calculation of the threshold of for example 0.1% w/w is done taking into account the total weight of the final apparel product (i.e. including all its parts/components, be it made of textile materials or other materials). This would seem the simplest approach but deviating from the approach currently applied under REACH.</p> <p>Option 2) Calculation based on two separate groups of materials (i) the textile fibre component of the textile apparel product (aggregated weight of textile materials) and including soft non-fibre components such as leather, and (ii) separate calculation for individual hard components, in particular buttons, sequins, zippers, etc.</p> |
| (b) | cut-off values in Table 1.5.1 section 1.5.3. of GHS (rev.10) / Annex I to the CLP with GCL (see Table 105) | |
| (d) – due to technical constraints | C alert | |
| (d) – due to regulatory limitations | equal to the regulatory limitations or lower or generic* | |
| (d) – due to customer-driven limitations | case by case / substance lists* | |

Information requirements - exemptions

- Section 12.3.13 of the 3rd milestone

- **Exemption 1** - exempting from information requirements those chemical substances that are not intentionally added to the final products and that are not present in the final product but that are related to the life cycle of the products. This would mean that only **chemical substances remaining in the final product and intentionally added** should be subject to mandatory tracking, i.e. to information requirements.

- No substance-specific derogations are proposed but it is suggested that the focus is to be placed on **substances that are added intentionally and that remain in the product**



Information requirements – entry into application

- Section 12.3.14
- Step-wise approach

| Type of SoC | entry into application - after DA on textile apparel products is published in the OJEU |
|---|--|
| (a) and (c) and (d) | 18 months |
| <p>(b) with a harmonised classification in Part 3 of Annex VI to CLP Regulation for at least under one of the following hazard classes (as those hazard classes are included under ESPR and exist in GHS and in CLP</p> <ul style="list-style-type: none"> — (i) carcinogenicity categories 1 and 2; — (ii) germ cell mutagenicity categories 1 and 2; — (iii) reproductive toxicity categories 1 and 2; — (viii) respiratory sensitisation category 1; — (ix) skin sensitisation category 1; — (x) hazardous to the aquatic environment - categories chronic 1 to 4; — (xi) hazardous to the ozone layer; — (xii) specific target organ toxicity – repeated exposure categories 1 and 2; — (xiii) specific target organ toxicity – single exposure categories 1 and 2. | 36 months |
| (b) with a harmonised classification in Part 3 of Annex VI to CLP Regulation for the following hazard classes: ED Human Health and Environment, PBT, vPvB, PMT, vPvM (as those hazard classes exist in the CLP regulation but not in GHS) | 8 years |

Performance requirements

- Performance requirements on substances **are not proposed** at this stage
- **Section 12.3.15** → discussion on product aspects (Article 5(1) of ESPR) that could have a direct link to the presence or use of chemical substances
- Evidence gathered is insufficient to justify proposing the setting of performance requirements for any specific chemical substance associated to apparel textile products
- Substances which are of concern **primarily due to chemical safety** are generally not to be addressed via ESPR (see Article 6(3)).



Substances of concern

Q&A

Are there any questions/feedback related to:

- 1) SoCs identified as (d) due to existing regulatory limitations associated to their chemical safety
- 2) SoCs (d) “negatively affecting the reuse or recycling of materials in the product in which it is present” → any?
- 3) The proposal of thresholds for the tracking of SoCs and the calculation method, specially here, feedback on options 1 and 2 is highly appreciated
- 4) The proposed [exemption 1] to SoCs
- 5) The dates to entry into application for SoCs (a), (b), (c) and (d)
- 6) The non proposal of performance requirements



Closing remarks



Thank you

JRC-B5-TEXTILES@ec.europa.eu



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